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

FORM 10-Q

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

For the quarterly period ended September 30, 2020

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 Incorporation or Organization)	(I.R.S. Employer 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)

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

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

Large accelerated filer ☑ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act ☐

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

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value $0.01 per share	AXL	New York Stock Exchange

As of October 27, 2020, the latest practicable date, the number of shares of the registrant's Common Stock, par value $0.01 per share, outstanding was 113,272,990 shares.

Internet Website Access to Reports

The website for American Axle & Manufacturing Holdings, Inc. is *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 or 15(d) of the Exchange Act 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 that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.
FORM 10-Q
FOR THE QUARTER ENDED SEPTEMBER 30, 2020
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FORWARD-LOOKING STATEMENTS

In this Quarterly Report on Form 10-Q (Quarterly 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:

- significant disruptions in production, sales and/or supply as a result of public health crises, including pandemic or epidemic illness such as Novel Coronavirus (COVID-19), or otherwise;
- global economic conditions;
- reduced purchases of our products by General Motors Company (GM), FCA US LLC (FCA), Ford Motor Company (Ford) or other customers;
- our ability to respond to changes in technology, increased competition or pricing pressures;
- 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 attract new customers and programs for new products;
- reduced demand for our customers' products (particularly light trucks and sport utility vehicles (SUVs) produced by GM, FCA and Ford);
- risks inherent in our global operations (including tariffs and the potential consequences thereof to us, our suppliers, and our customers and their suppliers, adverse changes in trade agreements, such as USMCA, immigration policies, political stability, taxes and other law changes, potential disruptions of production and supply, and currency rate fluctuations);
- a significant disruption in operations at one or more of our key manufacturing facilities;
- negative or unexpected tax consequences;
- 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;
- supply shortages or price increases in raw material and/or freight, utilities or other operating supplies for us or our customers as a result of pandemics, natural disasters or otherwise;
- 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;
- an impairment of our goodwill, other intangible assets, or long-lived assets if our business or market conditions indicate that the carrying values of those assets exceed their fair values;
- liabilities arising from warranty claims, product recall or field actions, product liability and legal proceedings to which we are or may become a party, or the impact of product recall or field actions on our customers;
- our ability or our customers' and suppliers' ability to successfully launch new product programs on a timely basis;
- our ability to 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;
- our ability to achieve the level of cost reductions required to sustain global cost competitiveness;
- our ability to realize the expected revenues from our new and incremental business backlog;
- price volatility in, or reduced availability of, fuel;
- our ability to protect our intellectual property and successfully defend against assertions made against us;
- risks of noncompliance with environmental laws and regulations or risks of environmental issues that could result in unforeseen costs at our facilities, or reputational damage;
- adverse changes in laws, government regulations or market conditions affecting our products or our customers' products;
- our ability or our customers' and suppliers' ability to comply with regulatory requirements and the potential costs of such compliance;
- changes in liabilities arising from pension and other postretirement benefit obligations;
- our ability to attract and retain key associates; 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 any or all of the foregoing factors may be exacerbated by COVID-19. Further, 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.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	**2019**	**2020**	**2019**
	(in millions, except per share data)			
Net sales	**$ 1,414.1**	$ 1,677.4	**$ 3,272.9**	$ 5,100.9
Cost of goods sold	**1,164.3**	1,428.7	**2,926.7**	4,381.7
Gross profit	**249.8**	248.7	**346.2**	719.2
Selling, general and administrative expenses	**66.5**	92.7	**230.6**	274.7
Amortization of intangible assets	**21.6**	23.7	**65.0**	73.6
Impairment charges (Note 1 and Note 3)	**—**	225.0	**510.0**	225.0
Restructuring and acquisition-related costs	**9.7**	11.7	**38.6**	36.0
Loss on sale of business	**—**	—	**1.0**	—
Operating income (loss)	**152.0**	(104.4)	**(499.0)**	109.9
Interest expense	**(53.9)**	(54.3)	**(160.0)**	(163.9)
Interest income	**3.4**	2.2	**9.2**	3.4
Other income (expense)				
Debt refinancing and redemption costs	**(5.2)**	(5.1)	**(6.7)**	(7.5)
Other expense, net	**(1.6)**	(2.9)	**(3.8)**	(9.0)
Income (loss) before income taxes	**94.7**	(164.5)	**(660.3)**	(67.1)
Income tax benefit	**(22.5)**	(40.4)	**(63.1)**	(37.4)
Net income (loss)	**$ 117.2**	$ (124.1)	**$ (597.2)**	$ (29.7)
Net income attributable to noncontrolling interests	**—**	(0.1)	**(0.1)**	(0.4)
Net income (loss) attributable to AAM	**$ 117.2**	$ (124.2)	**$ (597.3)**	$ (30.1)
Basic earnings (loss) per share	**$ 0.99**	$ (1.10)	**$ (5.28)**	$ (0.27)
Diluted earnings (loss) per share	**$ 0.99**	$ (1.10)	**$ (5.28)**	$ (0.27)

See accompanying notes to condensed consolidated financial statements.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	**2019**	**2020**	**2019**
	(in millions)			
Net income (loss)	**$ 117.2**	$ (124.1)	**$ (597.2)**	$ (29.7)
Other comprehensive income (loss)				
Defined benefit plans, net of tax [a]	**1.7**	(1.3)	**5.0**	0.5
Foreign currency translation adjustments	**14.0**	(37.1)	**(30.0)**	(34.7)
Changes in cash flow hedges, net of tax [b]	**6.7**	(6.4)	**(19.3)**	(24.7)
Other comprehensive income (loss)	**22.4**	(44.8)	**(44.3)**	(58.9)
Comprehensive income (loss)	**$ 139.6**	$ (168.9)	**$ (641.5)**	$ (88.6)
Net income attributable to noncontrolling interests	**—**	(0.1)	**(0.1)**	(0.4)
Foreign currency translation adjustments attributable to noncontrolling interests	**—**	—	**0.3**	—
Comprehensive income (loss) attributable to AAM	**$ 139.6**	$ (169.0)	**$ (641.3)**	$ (89.0)

(a) *Amounts are net of tax of $(0.4) million and $(1.2) million for the three and nine months ended September 30, 2020, and $0.3 million and $(0.2) million for the three and nine months ended September 30, 2019, respectively.*

(b) *Amounts are net of tax of $(0.2) million and $1.6 million for the three and nine months ended September 30, 2020, and $1.1 million and $7.3 million for the three and nine months ended September 30, 2019, respectively.*

See accompanying notes to condensed consolidated financial statements.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS

	September 30, 2020	December 31, 2019
	(Unaudited)	
Assets	*(in millions)*	
Current assets		
Cash and cash equivalents	**$ 537.3**	$ 532.0
Accounts receivable, net	**900.8**	815.4
Inventories, net	**315.8**	373.6
Prepaid expenses and other	**158.7**	136.8
Total current assets	**1,912.6**	1,857.8
Property, plant and equipment, net	**2,157.9**	2,358.4
Deferred income taxes	**104.6**	64.1
Goodwill	**183.6**	699.1
Other intangible assets, net	**801.5**	864.5
GM postretirement cost sharing asset	**221.9**	223.3
Other assets and deferred charges	**560.0**	577.4
Total assets	**$ 5,942.1**	$ 6,644.6
Liabilities and Stockholders’ Equity		
Current liabilities		
Current portion of long-term debt	**$ 26.5**	$ 28.7
Accounts payable	**622.0**	623.5
Accrued compensation and benefits	**163.5**	154.4
Deferred revenue	**22.8**	18.9
Accrued expenses and other	**189.5**	200.9
Total current liabilities	**1,024.3**	1,026.4
Long-term debt, net	**3,555.4**	3,612.3
Deferred revenue	**75.6**	83.7
Deferred income taxes	**19.7**	19.6
Postretirement benefits and other long-term liabilities	**923.6**	922.2
Total liabilities	**5,598.6**	5,664.2
Stockholders' equity		
Common stock, par value $0.01 per share; 150.0 million shares authorized;		
121.3 million shares issued as of September 30, 2020 and 120.2 million shares issued as of December 31, 2019	**1.2**	1.2
Paid-in capital	**1,328.3**	1,313.9
Retained earnings (Accumulated deficit)	**(355.8)**	248.6
Treasury stock at cost, 8.0 million shares as of September 30, 2020 and 7.6 million shares as of December 31, 2019	**(212.0)**	(209.3)
Accumulated other comprehensive loss		
Defined benefit plans, net of tax	**(254.9)**	(259.9)
Foreign currency translation adjustments	**(130.9)**	(101.2)
Unrecognized loss on cash flow hedges, net of tax	**(35.0)**	(15.7)
Total AAM stockholders' equity	**340.9**	977.6
Noncontrolling interests in subsidiaries	**2.6**	2.8
Total stockholders' equity	**343.5**	980.4
Total liabilities and stockholders' equity	**$ 5,942.1**	$ 6,644.6

See accompanying notes to condensed consolidated financial statements.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Nine Months Ended September 30,	
	2020	**2019**
	(in millions)	
Operating activities		
Net loss	**$ (597.2)**	$ (29.7)
Adjustments to reconcile net loss to net cash provided by operating activities		
Depreciation and amortization	**393.7**	411.5
Impairment charges	**510.0**	225.0
Deferred income taxes	**(38.4)**	(87.6)
Stock-based compensation	**14.4**	17.5
Pensions and other postretirement benefits, net of contributions	**(6.5)**	(10.4)
Loss on disposal of property, plant and equipment, net	**16.4**	1.3
Debt refinancing and redemption costs	**6.7**	7.5
Changes in operating assets and liabilities		
Accounts receivable	**(88.0)**	(108.4)
Inventories	**56.9**	18.8
Accounts payable and accrued expenses	**5.6**	8.6
Deferred revenue	**(6.6)**	(12.9)
Other assets and liabilities	**(20.6)**	(62.6)
Net cash provided by operating activities	**246.4**	378.6
Investing activities		
Purchases of property, plant and equipment	**(146.3)**	(335.3)
Proceeds from sale of property, plant and equipment	**1.6**	2.0
Investment in joint venture	**—**	(2.2)
Purchase buyouts of leased equipment	**(0.1)**	—
Final settlement on sale of business	**(4.4)**	—
Net cash used in investing activities	**(149.2)**	(335.5)
Financing activities		
Proceeds from Revolving Credit Facility	**350.0**	—
Payments of Revolving Credit Facility	**(350.0)**	—
Proceeds from issuance of long-term debt	**408.9**	348.4
Payments of long-term debt	**(482.2)**	(477.7)
Debt issuance costs	**(11.0)**	(3.3)
Purchase of treasury stock	**(2.7)**	(7.5)
Other financing activities	**(0.6)**	—
Net cash used in financing activities	**(87.6)**	(140.1)
Effect of exchange rate changes on cash	**(4.3)**	(4.3)
Net increase (decrease) in cash, cash equivalents and restricted cash	**5.3**	(101.3)
Cash, cash equivalents and restricted cash at beginning of period	**532.0**	478.9
Cash, cash equivalents and restricted cash at end of period	**$ 537.3**	$ 377.6
Supplemental cash flow information		
Interest paid	**$ 138.0**	$ 136.3
Income taxes paid (refunds received), net	**$ (5.2)**	$ 45.7

See accompanying notes to condensed consolidated financial statements.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)

	Common Stock					Accumulated	Noncontrolling
	Shares Outstanding	Par Value	Paid-in Capital	Retained Earnings (Accumulated Deficit)	Treasury Stock	Other Comprehensive Income (Loss)	Interest in Subsidiaries
Balance at January 1, 2019	111.7	$ 1.2	$ 1,292.6	$ 703.5	$ (201.8)	$ (311.6)	$ 2.4
Net income	—	—	—	41.6	—	—	0.1
Vesting of restricted stock units and performance shares	1.2	—	—	—	—	—	—
Stock-based compensation	—	—	5.5	—	—	—	—
Modified-retrospective application of ASU 2016-02	—	—	—	1.9	—	—	—
Adoption of ASU 2018-02	—	—	—	27.7	—	(27.7)	—
Purchase of treasury stock	(0.4)	—	—	—	(7.3)	—	—
Changes in cash flow hedges	—	—	—	—	—	(2.5)	—
Foreign currency translation adjustments	—	—	—	—	—	(2.5)	—
Defined benefit plans, net	—	—	—	—	—	0.7	—
Balance at March 31, 2019	112.5	$ 1.2	$ 1,298.1	$ 774.7	$ (209.1)	$ (343.6)	$ 2.5
Net income	—	—	—	52.5	—	—	0.2
Stock-based compensation	—	—	5.7	—	—	—	—
Purchase of treasury stock	—	—	—	—	(0.2)	—	—
Changes in cash flow hedges	—	—	—	—	—	(15.8)	—
Foreign currency translation adjustments	—	—	—	—	—	4.9	—
Defined benefit plans, net	—	—	—	—	—	1.1	—
Balance at June 30, 2019	112.5	$ 1.2	$ 1,303.8	$ 827.2	$ (209.3)	$ (353.4)	$ 2.7
Net income (loss)	—	—	—	(124.2)	—	—	0.1
Stock-based compensation	—	—	6.3	—	—	—	—
Changes in cash flow hedges	—	—	—	—	—	(6.4)	—
Foreign currency translation adjustments	—	—	—	—	—	(37.1)	—
Defined benefit plans, net	—	—	—	—	—	(1.3)	—
Balance at September 30, 2019	112.5	$ 1.2	$ 1,310.1	$ 703.0	$ (209.3)	$ (398.2)	$ 2.8

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (CONTINUED)
(Unaudited)

	Common Stock					Accumulated	Noncontrolling
	Shares Outstanding	Par Value	Paid-in Capital	Retained Earnings	Treasury Stock	Other Comprehensive Income (Loss)	Interest in Subsidiaries
Balance at January 1, 2020	**112.6**	**$ 1.2**	**$ 1,313.9**	**$ 248.6**	**$ (209.3)**	**$ (376.8)**	**$ 2.8**
Net income (loss)	—	—	—	(501.3)	—	—	0.1
Vesting of restricted stock units and performance shares	0.8	—	—	—	—	—	—
Stock-based compensation	—	—	4.6	—	—	—	—
Modified-retrospective application of ASU 2016-13	—	—	—	(7.1)	—	—	—
Purchase of treasury stock	(0.4)	—	—	—	(2.4)	—	—
Changes in cash flow hedges	—	—	—	—	—	(34.7)	—
Foreign currency translation adjustments	—	—	—	—	—	(48.5)	(0.3)
Defined benefit plans, net	—	—	—	—	—	1.6	—
Balance at March 31, 2020	**113.0**	**$ 1.2**	**$ 1,318.5**	**$ (259.8)**	**$ (211.7)**	**$ (458.4)**	**$ 2.6**
Net loss	—	—	—	(213.2)	—	—	—
Vesting of restricted stock units and performance shares	0.3	—	—	—	—	—	—
Stock-based compensation	—	—	4.7	—	—	—	—
Purchase of treasury stock	—	—	—	—	(0.3)	—	—
Changes in cash flow hedges	—	—	—	—	—	8.7	—
Foreign currency translation adjustments	—	—	—	—	—	4.8	—
Defined benefit plans, net	—	—	—	—	—	1.7	—
Balance at June 30, 2020	**113.3**	**$ 1.2**	**$ 1,323.2**	**$ (473.0)**	**$ (212.0)**	**$ (443.2)**	**$ 2.6**
Net income	—	—	—	117.2	—	—	—
Stock-based compensation	—	—	5.1	—	—	—	—
Changes in cash flow hedges	—	—	—	—	—	6.7	—
Foreign currency translation adjustments	—	—	—	—	—	14.0	—
Defined benefit plans, net	—	—	—	—	—	1.7	—
Balance at September 30, 2020	**113.3**	**$ 1.2**	**$ 1,328.3**	**$ (355.8)**	**$ (212.0)**	**$ (420.8)**	**$ 2.6**

See accompanying notes to condensed consolidated financial statements.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
SEPTEMBER 30, 2020
(Unaudited)

1. ORGANIZATION AND BASIS OF PRESENTATION

Organization We are a global Tier 1 supplier to the automotive industry. We design, engineer and manufacture driveline and metal forming products that are making the next generation of vehicles smarter, lighter, safer and more efficient. We employ approximately 20,000 associates, operating at nearly 80 facilities in 17 countries, to support our customers on global and regional platforms with a continued focus on delivering quality, operational excellence and technology leadership.

Basis of Presentation We have prepared the accompanying interim condensed consolidated financial statements in accordance with the instructions to Form 10-Q under the Securities Exchange Act of 1934. These condensed consolidated financial statements are unaudited but include all normal recurring adjustments, which we consider necessary for a fair presentation of the information set forth herein. Results of operations for the periods presented are not necessarily indicative of the results for the full fiscal year.

The balance sheet at December 31, 2019 presented herein has been derived from the audited consolidated financial statements at that date but does not include all of the information and footnotes required by accounting principles generally accepted in the United States of America (GAAP) for complete consolidated financial statements.

In order to prepare the accompanying interim condensed consolidated financial statements, we are required to make estimates and assumptions that affect the reported amounts and disclosures in our interim condensed consolidated financial statements. These estimates and assumptions are impacted by risks and uncertainties, including those associated with the Novel Coronavirus (COVID-19) pandemic that began in the first quarter of 2020. While we have made estimates and assumptions based on the facts and circumstances available as of the date of this report, the full impact of COVID-19 cannot be predicted, and actual results could differ materially from those estimates and assumptions.

For further information, refer to the audited consolidated financial statements and notes included in our Annual Report on Form 10-K for the year ended December 31, 2019.

Manufacturing Facility Fire and Insurance Recovery

On September 22, 2020, a significant industrial fire occurred at our Malvern Manufacturing Facility in Ohio (Malvern Fire). All associates were evacuated safely and without injury. We continue to focus on managing this disruption and protecting continuity of supply to our customers, including utilizing production capacity and resources at other AAM facilities.

Our insurance policies are expected to cover the repair, replacement or actual cash value of the assets that incurred loss or damage, less our applicable deductible of $1 million. In addition, our insurance policies are expected to provide coverage for interruption to our business, including lost or reduced profits and reimbursement for certain expenses and costs that are incurred relating to the fire. In the third quarter of 2020, we recorded $28.4 million of charges primarily related to the write-down of property, plant and equipment (PP&E) as a result of damage from the fire. We also recorded an insurance recovery receivable primarily associated with the write-down of PP&E of $19.8 million in the third quarter of 2020, which is included in Prepaid expenses and other in our Condensed Consolidated Balance Sheet as of September 30, 2020. This resulted in a net pre-tax impact to our Condensed Consolidated Statement of Operations of approximately $8.6 million in Cost of goods sold for the three and nine months ended September 30, 2020, which includes our applicable deductible. We continue to assess the extent of the damage caused by the fire. As such, we cannot estimate the total impact, including potential insurance recoveries, on our results of operations, financial position or cash flows, or the timing of such impact.

Sale of U.S. Casting - Classification of Assets and Liabilities as Held-for-Sale

In the fourth quarter of 2019, we completed the sale of the U.S operations of our former Casting segment (the Casting Sale). In conjunction with the Casting Sale, the assets and liabilities associated with this business met the criteria to be classified as held-for-sale in our Condensed Consolidated Balance Sheet as of September 30, 2019. Upon reclassification to held-for-sale in the third quarter of 2019, we recorded a pre-tax impairment charge of $225.0 million to reduce the carrying value of this business to fair value less cost to sell.

Effect of New Accounting Standards and Other Regulatory Pronouncements

Accounting Standard Update 2020-04

On March 12, 2020, the Financial Accounting Standards Board (FASB) issued Accounting Standard Update (ASU) 2020-04 - *Reference Rate Reform (Topic 848)*. This guidance provides optional expedients and exceptions that are intended to ease the burden of updating contracts to contain a new reference rate due to the discontinuation of the London Inter-Bank Offered Rate (LIBOR). This guidance is available immediately and may be implemented in any period prior to the guidance expiration on December 31, 2022. We are currently assessing which of our various contracts will require an update for a new reference rate and will determine the timing for our implementation of this guidance at the completion of that analysis.

Accounting Standard Update 2019-12

On December 18, 2019, the FASB issued ASU 2019-12 - *Income Taxes (Topic 740)*. This guidance is intended to simplify the accounting and disclosure requirements for income taxes by removing various exceptions and requires that the effect of an enacted change in tax laws or rates be included in the annual effective tax rate computation in the interim period of the enactment. This guidance becomes effective at the beginning of our 2021 fiscal year. We expect to adopt this guidance on January 1, 2021 and we do not expect that this standard will have a material impact on our consolidated financial statements.

Accounting Standards Update 2016-13

On June 16, 2016, the FASB issued 2016-13 - *Financial Instruments* - *Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. ASU 2016-13 replaces the incurred loss model under previous guidance, and requires entities to consider expected credit losses, in addition to past events and current conditions when measuring credit losses. This guidance applies to certain of our financial instruments and is primarily applicable to our trade accounts receivable. We adopted this guidance on January 1, 2020, using a modified-retrospective transition method and the adoption of this standard did not have a material impact on our condensed consolidated financial statements. See the Statement of Stockholders' Equity for the implementation impact of ASU 2016-13.

Securities and Exchange Commission (SEC) Rule

In the first quarter of 2020, the SEC adopted "Financial Disclosures about Guarantors and Issuers of Guaranteed Securities and Affiliates Whose Securities Collateralize a Registrant's Securities," a rule that amends the financial disclosure requirements for guarantors and issuers of registered guaranteed securities. This rule eliminates the previous requirement to present guarantor financial statement information in the notes to the financial statements and allows for the disclosure of summarized financial information for the most recent year and interim period, as well as expanded non-financial disclosures, in Management's Discussion and Analysis (MD&A). The effective date for this rule is January 4, 2021, however, the SEC permitted voluntary compliance prior to this date and we elected to adopt the new disclosure requirements in the first quarter of 2020. As such, we no longer present guarantor financial statement information in the notes to the condensed consolidated financial statements in this Quarterly Report on Form 10-Q, but instead present the required information within MD&A.

Coronavirus Aid, Relief, and Economic Security Act

The Coronavirus Aid, Relief, and Economic Security Act (the CARES Act) was enacted on March 27, 2020 in the United States. The key provisions of the CARES Act, as applicable to AAM, include the following:

- The ability to use net operating losses (NOLs) to offset income without the 80% taxable income limitation enacted as part of the Tax Cuts and Jobs Act (TCJA) of 2017, and to carry back NOLs to offset prior year income for five years. These are temporary provisions that apply to NOLs incurred in 2018, 2019 or 2020 tax years.
- The ability to claim a current deduction for interest expense up to 50% of Adjusted Taxable Income (ATI) for tax years 2019 and 2020. This limitation was previously 30% of ATI pursuant to the TCJA, and will revert to 30% after 2020.
- The ability to defer the payment of the employer portion of social security taxes incurred between March 27, 2020 and December 31, 2020, with 50% of the deferred amount to be paid by December 31, 2021 and the remaining 50% to be paid by December 31, 2022.
- The ability to claim an Employee Retention Credit (ERC), which is a refundable payroll tax credit, for 50% of qualified wages or benefits, subject to certain limitations, that are paid to an employee when they are not providing services due to COVID-19. The ERC applies to qualified wages paid or incurred during the period March 13, 2020 through December 31, 2020 and is available to eligible employers whose operations were fully or partially suspended due to COVID-19, or whose gross receipts declined by more than 50% when compared to the applicable period in the prior year.

2. RESTRUCTURING AND ACQUISITION-RELATED COSTS

In the first quarter of 2019, we initiated a global restructuring program (the 2019 Program). The primary objectives of the 2019 Program were to further the integration of Metaldyne Performance Group, Inc. (MPG), align AAM's product and process technologies, and to achieve efficiencies within our corporate and business unit support teams to reduce cost in our business.

In the first quarter of 2020, we initiated a new global restructuring program (the 2020 Program) that supersedes the 2019 Program. The primary objectives of the 2020 Program are to achieve efficiencies within our corporate and business unit support teams to reduce cost in our business, and to structurally adjust our operations to a new level of market demand based on the impact of COVID-19. We expect to incur costs under the 2020 Program into 2022.

A summary of our restructuring activity for the first nine months of 2020 and 2019 is shown below:

	Severance Charges	Implementation Costs	Total
		(in millions)	
Accrual at December 31, 2018	$ 2.4	$ 1.6	$ 4.0
Charges	10.4	13.1	23.5
Cash utilization	(11.7)	(9.9)	(21.6)
Accrual at September 30, 2019	$ 1.1	$ 4.8	$ 5.9
Accrual at December 31, 2019	**$ 4.8**	**$ 7.4**	**$ 12.2**
Charges	**19.9**	**11.9**	**31.8**
Cash utilization	**(19.9)**	**(11.0)**	**(30.9)**
Accrual at September 30, 2020	**$ 4.8**	**$ 8.3**	**$ 13.1**

As part of our restructuring actions, we incurred total severance charges of approximately $19.9 million and $10.4 million during the nine months ended September 30, 2020 and 2019, respectively. We also incurred total implementation costs of approximately $11.9 million and $13.1 million during the nine months ended September 30, 2020 and 2019, respectively. Implementation costs in both periods consist primarily of plant exit costs.

Approximately $22.9 million of the restructuring costs incurred during the nine months ended September 30, 2020 were under the 2020 Program. Approximately $14.4 million and $13.1 million of our total restructuring costs for the nine months ended September 30, 2020 related to our Driveline and Metal Forming segments, respectively, while the remainder were corporate costs. Approximately $2.0 million, $14.4 million and $0.7 million of our total restructuring costs for the nine months ended September 30, 2019 related to our Driveline, Metal Forming and former Casting segments, respectively, while the remainder were corporate costs. We expect to incur approximately $70 million to $80 million of total restructuring charges in 2020, including costs incurred under the 2020 Program.

During the nine months ended September 30, 2020 and 2019, we incurred the following integration charges primarily related to the integration of MPG:

	Integration Expenses
	(in millions)
Charges for the nine months ended September 30, 2020	**$ 6.8**
Charges for the nine months ended September 30, 2019	12.5

These integration expenses primarily reflect costs incurred for information technology infrastructure and enterprise resource planning systems. Total restructuring charges and acquisition-related charges are presented on a separate line item titled Restructuring and acquisition-related costs in our Condensed Consolidated Statements of Operations, and totaled $9.7 million and $38.6 million for the three and nine months ended September 30, 2020, respectively, and $11.7 million and $36.0 million for the three and nine months ended September 30, 2019, respectively.

3. GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill The following table provides a reconciliation of changes in goodwill for the nine months ended September 30, 2020:

	Driveline	Metal Forming	Consolidated
		(in millions)	
Balance at December 31, 2019	$ 398.3	$ 300.8	$ 699.1
Impairment charge	(210.8)	(299.2)	(510.0)
Foreign currency translation	(3.9)	(1.6)	(5.5)
Balance at September 30, 2020	$ 183.6	$ —	$ 183.6

In the first quarter of 2020, the reduction in global automotive production volumes caused by the impact of COVID-19 represented an indicator to test our goodwill for impairment. This reduction in production volumes began in March of 2020 and resulted in lower forecasted sales volumes in the periods included in our long-range plan as revised in the first quarter of 2020.

In performing this test, we utilize a third-party valuation specialist to assist management in determining the fair value of our reporting units. Fair value of each reporting unit is estimated based on a combination of discounted cash flows and the use of pricing multiples derived from an analysis of comparable public companies multiplied against historical and/or anticipated financial metrics of each reporting unit. These calculations contain uncertainties as they require management to make assumptions including, but not limited to, market comparables, future cash flows of the reporting units, and appropriate discount and long-term growth rates. This fair value determination is categorized as Level 3 within the fair value hierarchy.

As a result of this goodwill impairment test in the first quarter of 2020, we determined that the carrying values of both our Driveline and Metal Forming reporting units were greater than their respective fair values. As such, we recorded a goodwill impairment charge of $210.8 million associated with our Driveline reporting unit and a goodwill impairment charge of $299.2 million associated with our Metal Forming reporting unit in the first quarter of 2020. The Metal Forming impairment charge represented a full impairment of the goodwill associated with that reporting unit.

These impairment charges were primarily the result of a decline in the projected cash flows of these reporting units under our revised long-range plan completed in the first quarter of 2020. The revision to our long-range plan was driven by lower forecasted sales volumes in the internal and external data sources used to form our projections primarily due to the reduction in global automotive production volumes caused by the impact of COVID-19. The impairment charges were also the result of changes in certain market-related inputs to the analysis to reflect macro-economic changes caused by the impact of COVID-19, including increased discount rates and lower pricing multiples for comparable public companies. At September 30, 2020, accumulated goodwill impairment losses were $1,435.5 million.

The reduction in production volumes and changes to macro-economic factors caused by the impact of COVID-19 also represented an indicator to test our long-lived assets, including other intangible assets and property, plant and equipment, for impairment. We completed this test in the first quarter of 2020 and there was no impairment of these assets.

Other Intangible Assets The following table provides a reconciliation of the gross carrying amount and associated accumulated amortization for AAM's other intangible assets, which are all subject to amortization:

	September 30, 2020			December 31, 2019		
	Gross Carrying Amount	**Accumulated Amortization**	**Net Carrying Amount**	**Gross Carrying Amount**	**Accumulated Amortization**	**Net Carrying Amount**
	(in millions)					
Capitalized computer software	**$ 47.2**	**$ (32.3)**	**$ 14.9**	$ 45.8	$ (27.6)	$ 18.2
Customer platforms	**856.2**	**(222.0)**	**634.2**	856.2	(174.4)	681.8
Customer relationships	**53.0**	**(12.0)**	**41.0**	53.0	(9.4)	43.6
Technology and other	**156.1**	**(44.7)**	**111.4**	156.0	(35.1)	120.9
Total	**$ 1,112.5**	**$ (311.0)**	**$ 801.5**	$ 1,111.0	$ (246.5)	$ 864.5

Amortization expense for our intangible assets was $21.6 million and $65.0 million for the three and nine months ended September 30, 2020, respectively, and $23.7 million and $73.6 million for the three and nine months ended September 30, 2019, respectively. Estimated amortization expense for the years 2020 through 2024 is expected to be in the range of approximately $80 million to $85 million per year.

4. INVENTORIES

We state our inventories at the lower of cost or net realizable value. The cost of our inventories is determined using the first-in first-out 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:

	September 30, 2020	December 31, 2019
	(in millions)	
Raw materials and work-in-progress	**$ 281.0**	$ 310.4
Finished goods	**62.2**	83.7
Gross inventories	**343.2**	394.1
Inventory valuation reserves	**(27.4)**	(20.5)
Inventories, net	**$ 315.8**	$ 373.6

5. LONG-TERM DEBT

Long-term debt consists of the following:

	September 30, 2020	December 31, 2019
	(in millions)	
Revolving Credit Facility	**$ —**	$ —
Term Loan A Facility	**337.9**	340.0
Term Loan B Facility	**1,188.8**	1,188.8
6.875% Notes due 2028	**400.0**	—
6.625% Notes due 2022	—	450.0
6.50% Notes due 2027	**500.0**	500.0
6.25% Notes due 2026	**400.0**	400.0
6.25% Notes due 2025	**700.0**	700.0
Foreign credit facilities and other	**104.5**	113.4
Total debt	**3,631.2**	3,692.2
Less: Current portion of long-term debt	**26.5**	28.7
Long-term debt	**3,604.7**	3,663.5
Less: Debt issuance costs	**49.3**	51.2
Long-term debt, net	**$ 3,555.4**	$ 3,612.3

Senior Secured Credit Facilities In 2017, American Axle & Manufacturing Holdings, Inc. (Holdings) and American Axle & Manufacturing, Inc. (AAM, Inc.) entered into a credit agreement (the Credit Agreement). In connection with the Credit Agreement, Holdings, AAM, Inc. and certain of their restricted subsidiaries entered into a Collateral Agreement and Guarantee Agreement with the financial institutions party thereto. The Credit Agreement included a $100.0 million term loan A facility (the Term Loan A Facility), a $1.55 billion term loan B facility (the Term Loan B Facility) and a $932 million multi-currency revolving credit facility (the Revolving Credit Facility, and together with the Term Loan A Facility and the Term Loan B Facility, the Senior Secured Credit Facilities).

In July 2019, Holdings, AAM, Inc., and certain subsidiaries of Holdings entered into the First Amendment (First Amendment) to the Credit Agreement. The First Amendment, among other things, established $340 million in incremental term loan A commitments with a maturity date of July 29, 2024 (Term Loan A Facility due 2024), reduced the availability under the Revolving Credit Facility from $932 million to $925 million, and extended the maturity date of the Revolving Credit Facility from April 6, 2022 to July 29, 2024, and modified the applicable margin with respect to interest rates under the Term Loan A Facility due 2024 and interest rates and commitment fees under the Revolving Credit Facility. The applicable margin and the maturity date for the Term Loan B Facility remain unchanged. The proceeds of $340 million were used to repay all of the outstanding loans under the existing Term Loan A Facility and a portion of the outstanding Term Loan B Facility, resulting in no additional indebtedness. This also satisfies all payment requirements under the Term Loan B Facility until maturity in 2024.

In April 2020, Holdings, AAM, Inc., and certain subsidiaries of Holdings entered into the Second Amendment (Second Amendment) to the Credit Agreement. For the period from April 1, 2020 through March 31, 2022 (the Amendment Period), the Second Amendment, among other things, replaced the total net leverage ratio covenant with a new senior secured net leverage ratio covenant, reduced the minimum levels of the cash interest expense coverage ratio covenant, and modified certain covenants restricting the ability of Holdings, AAM and certain subsidiaries of Holdings to create, incur, assume or permit to exist certain additional indebtedness and liens and to make certain restricted payments, voluntary payments and distributions. The Second Amendment also increased the maximum levels of the total net leverage ratio covenant after the Amendment Period, modified the applicable margin with respect to interest rates under the Term Loan A Facility due 2024 and interest rates and commitment fees under the Revolving Credit Facility, and increased the minimum adjusted London Interbank Offered Rate for Eurodollar-based loans under the Term Loan A Facility due 2024 and Revolving Credit Facility. The applicable margin for the Term Loan B Facility remains unchanged. We paid debt issuance costs of $4.6 million in the nine months ended September 30, 2020 related to the Second Amendment.

At September 30, 2020, we had $891.4 million available under the Revolving Credit Facility. This availability reflects a reduction of $33.6 million for standby letters of credit issued against the facility. The proceeds of the Revolving Credit Facility are used for general corporate purposes.

The Senior Secured Credit Facilities provide back-up liquidity for our foreign credit facilities. We intend to use the availability of long-term financing under the Senior Secured Credit Facilities 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 Condensed Consolidated Balance Sheet.

6.875% Notes due 2028 In the second quarter of 2020, we issued $400 million in aggregate principal amount of 6.875% senior notes due 2028 (the 6.875% Notes). Proceeds from the 6.875% Notes were used primarily to fund the redemption of the remaining $350 million of 6.625% senior notes due 2022 described below and for general corporate purposes. We paid debt issuance costs of $6.4 million in the nine months ended September 30, 2020 related to the 6.875% Notes.

Redemption of 6.625% Notes due 2022 In the first quarter of 2020, we voluntarily redeemed a portion of our 6.625% Notes due 2022. This resulted in a principal payment of $100 million and $2.0 million in accrued interest. We also expensed approximately $0.4 million for the write-off of the unamortized debt issuance costs that we had been amortizing over the expected life of the borrowing, and approximately $1.1 million for an early redemption premium.

In the third quarter of 2020, we voluntarily redeemed the remaining portion of our 6.625% Notes due 2022. This resulted in a principal payment of $350 million and $5.7 million in accrued interest. We also expensed approximately $1.3 million for the write-off of the unamortized debt issuance costs that we had been amortizing over the expected life of the borrowing, and approximately $3.9 million for the payment of an early redemption premium.

Foreign credit facilities We utilize local currency credit facilities to finance the operations of certain foreign subsidiaries. At September 30, 2020, $104.5 million was outstanding under our foreign credit facilities, as compared to $106.0 million at December 31, 2019. At September 30, 2020, an additional $54.7 million was available under our foreign credit facilities.

Weighted-Average Interest Rate The weighted-average interest rate of our long-term debt outstanding was 5.7% at September 30, 2020 and 5.8% at December 31, 2019.

6. DERIVATIVES

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

Currency derivative contracts From time to time, we use foreign currency forward contracts to reduce the effects of fluctuations in exchange rates relating to certain foreign currencies. As of September 30, 2020, we have currency forward contracts outstanding with a total notional amount of $155.8 million that hedge our exposure to changes in foreign currency exchange rates for certain payroll expenses into the second quarter of 2023 and other items into the second quarter of 2021.

Fixed-to-fixed cross-currency swap In 2019, we entered into a fixed-to-fixed cross-currency swap to reduce the variability of functional currency equivalent cash flows associated with changes in exchange rates on certain Euro-based intercompany loans. In the first quarter of 2020, we discontinued this fixed-to-fixed cross-currency swap, which was in an asset position of $9.8 million on the date that it was discontinued.

Also in the first quarter of 2020, we entered into a new fixed-to-fixed cross-currency swap to reduce the variability of functional currency equivalent cash flows associated with changes in exchange rates on certain Euro-based intercompany loans. As of September 30, 2020, the notional amount of the fixed-to-fixed cross-currency swap was $234.4 million, and hedges our exposure to changes in exchange rates on the intercompany loans into the second quarter of 2024.

Variable-to-fixed interest rate swap In 2019, we entered into a variable-to-fixed interest rate swap to reduce the variability of cash flows associated with interest payments on our variable rate debt. We have the following notional amounts hedged in relation to our variable-to-fixed interest rate swap: $900.0 million through May 2021, $750.0 million through May 2022, $600.0 million through May 2023 and $500.0 million through May 2024.

The following table summarizes the reclassification of derivative gains and losses into net income from accumulated other comprehensive income (loss) for those derivative instruments designated as cash flow hedges under ASC 815 - *Derivatives and Hedging*:

	Location of Gain (Loss) Reclassified into Net Income	Gain (Loss) Reclassified During Three Months Ended September 30,		Nine Months Ended September 30,		Total of Financial Statement Line Item	Gain (Loss) Expected to be Reclassified During the Next 12 Months
		2020	**2019**	**2020**	**2019**	**2020**	
				(in millions)			
Currency forward contracts	Cost of Goods Sold	**$ (1.3)**	$ 0.9	**$ (2.3)**	$ 1.8	**$ 2,926.7**	**$ (2.6)**
Fixed-to-fixed cross-currency swap	Other Income (Expense), net	**(9.3)**	7.6	**(9.3)**	7.6	**(3.8)**	**1.7**
Variable-to-fixed interest rate swap	Interest Expense	**(4.1)**	(1.7)	**(10.1)**	0.2	**(160.0)**	**(15.9)**

See Note 12 - Reclassifications Out of Accumulated Other Comprehensive Income (Loss) (AOCI) for amounts recognized in other comprehensive income (loss) during the three and nine months ended September 30, 2020 and 2019.

The following table summarizes the amount and location of gains and losses recognized in the Condensed Consolidated Statements of Operations for those derivative instruments not designated as hedging instruments under ASC 815:

	Location of Gain (Loss) Recognized in Net Income	Gain (Loss) Recognized During Three Months Ended September 30, 2020	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2020	Nine Months Ended September 30, 2019	Total of Financial Statement Line Item 2020
		(in millions)				
Currency forward contracts	Cost of Goods Sold	**$ 0.9**	$ (0.5)	**$ (6.7)**	$ 1.3	**$ 2,926.7**
Currency forward contracts	Other Income (Expense), net	**—**	0.1	**(0.5)**	(0.5)	**(3.8)**

7. FAIR VALUE

ASC 820 - *Fair Value Measurement* 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 value 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:

	September 30, 2020		December 31, 2019		
	Carrying Amount	Fair Value	Carrying Amount	Fair Value	Input
	(in millions)				
Balance Sheet Classification					
Cash equivalents	**$ 216.0**	**$ 216.0**	$ 271.3	$ 271.3	Level 1
Prepaid expenses and other					
Cash flow hedges - currency forward contracts	**0.5**	**0.5**	5.0	5.0	Level 2
Cash flow hedges - variable-to-fixed interest rate swap	**5.6**	**5.6**	0.9	0.9	Level 2
Nondesignated - currency forward contracts	**—**	**—**	1.9	1.9	Level 2
Other assets and deferred charges					
Cash flow hedges - currency forward contracts	**0.7**	**0.7**	3.4	3.4	Level 2
Cash flow hedges - fixed-to-fixed cross-currency swap	**—**	**—**	1.1	1.1	Level 2
Cash flow hedges - variable-to-fixed interest rate swap	**10.5**	**10.5**	2.2	2.2	Level 2
Accrued expenses and other					
Cash flow hedges - currency forward contracts	**3.1**	**3.1**	—	—	Level 2
Cash flow hedges - variable-to-fixed interest rate swap	**19.1**	**19.1**	7.9	7.9	Level 2
Nondesignated - currency forward contracts	**0.1**	**0.1**	—	—	Level 2
Postretirement benefits and other long-term liabilities					
Cash flow hedges - currency forward contracts	**2.9**	**2.9**	—	—	Level 2
Cash flow hedges - fixed-to-fixed cross-currency swap	**8.6**	**8.6**	—	—	Level 2
Cash flow hedges - variable-to-fixed interest rate swap	**36.9**	**36.9**	18.4	18.4	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 value due to the frequent resetting of the interest rates.

We estimated the fair value of the amounts outstanding on our debt using available market information and other observable data, to be as follows:

	September 30, 2020		December 31, 2019		
	Carrying Amount	**Fair Value**	**Carrying Amount**	**Fair Value**	**Input**
	(in millions)				
Revolving Credit Facility	**$ —**	**$ —**	$ —	$ —	Level 2
Term Loan A Facility	**337.9**	**323.1**	340.0	337.9	Level 2
Term Loan B Facility	**1,188.8**	**1,129.4**	1,188.8	1,174.0	Level 2
6.875% Notes due 2028	**400.0**	**388.0**	—	—	Level 2
6.625% Notes due 2022	**—**	**—**	450.0	455.4	Level 2
6.50% Notes due 2027	**500.0**	**482.5**	500.0	516.3	Level 2
6.25% Notes due 2026	**400.0**	**386.0**	400.0	409.0	Level 2
6.25% Notes due 2025	**700.0**	**676.6**	700.0	716.6	Level 2

8. EMPLOYEE BENEFIT PLANS

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

	Pension Benefits			
	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	**2020**	2019
	(in millions)			
Service cost	**$ 0.5**	$ 0.4	**$ 1.5**	$ 1.1
Interest cost	**5.4**	7.1	**16.2**	21.3
Expected asset return	**(9.6)**	(10.3)	**(28.9)**	(30.9)
Amortized loss	**2.1**	1.5	**6.4**	4.7
Settlement	**—**	0.4	**—**	0.4
Net periodic benefit credit	**$ (1.6)**	$ (0.9)	**$ (4.8)**	$ (3.4)

	Other Postretirement Benefits			
	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	**2020**	2019
	(in millions)			
Service cost	**$ 0.1**	$ —	**$ 0.3**	$ 0.2
Interest cost	**2.6**	3.3	**7.7**	9.7
Amortized loss	**0.3**	—	**0.8**	0.1
Amortized prior service credit	**(0.4)**	(0.4)	**(1.2)**	(1.2)
Net periodic benefit cost	**$ 2.6**	$ 2.9	**$ 7.6**	$ 8.8

The noncurrent liabilities associated with our pension and other postretirement benefit plans are classified as Postretirement benefits and other long-term liabilities on our Condensed Consolidated Balance Sheets. As of September 30, 2020 and December 31, 2019, we have a noncurrent pension liability of $105.4 million and $118.2 million, respectively. As of September 30, 2020 and December 31, 2019, we have a noncurrent other postretirement benefits liability of $515.7 million and $520.0 million, respectively.

Due to the availability of our pre-funded pension balances (previous contributions in excess of prior required pension contributions) related to certain of our U.S. pension plans, we expect our regulatory pension funding requirements in 2020 to be approximately $1.5 million. We expect our cash payments for other postretirement benefit obligations in 2020, net of GM cost sharing, to be approximately $17 million.

9. 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 actions taken to improve product quality and minimize warranty claims. We continuously evaluate these estimates and our customers' administration of their warranty programs. We monitor actual warranty claim data and adjust the liability, as necessary, on a quarterly basis.

The following table provides a reconciliation of changes in the product warranty liability:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	**2020**	2019
	(in millions)			
Beginning balance	**$ 63.9**	$ 55.7	**$ 62.0**	$ 57.7
Accruals	**4.4**	5.3	**9.2**	14.7
Payments	**(3.8)**	(0.9)	**(5.8)**	(8.2)
Adjustment to prior period accruals	**(0.1)**	0.7	**(0.6)**	(3.6)
Foreign currency translation	**0.2**	(0.5)	**(0.2)**	(0.3)
Ending balance	**$ 64.6**	$ 60.3	**$ 64.6**	$ 60.3

10. INCOME TAXES

We adjust our effective tax rate each quarter based on our estimated annual effective tax rate. We also record the tax impact of certain discrete, unusual or infrequently occurring items, including changes in judgment about valuation allowances and effects of changes in tax laws or rates, in the interim period in which they occur. In addition, jurisdictions with a projected loss for the year or a year-to-date loss where no tax benefit can be recognized are excluded from the estimated annual effective tax rate. The impact of such an exclusion could result in a higher or lower effective tax rate during a particular quarter, based upon the mix and timing of actual earnings versus annual projections.

Income tax was a benefit of $22.5 million for the three months ended September 30, 2020, an effective income tax rate of (23.8)%, as compared to a benefit of $40.4 million for the three months ended September 30, 2019, an effective income tax rate of 24.6%. Income tax was a benefit of $63.1 million for the nine months ended September 30, 2020, an effective income tax rate of 9.6%, as compared to a benefit of $37.4 million for the nine months ended September 30, 2019, an effective income tax rate of 55.7%.

In accordance with the guidance in ASC 740 - *Income Taxes*, we review the likelihood that we will realize the benefit of deferred tax assets and estimate whether recoverability of our deferred tax assets is "more likely than not" based on the available evidence. During the previous three month period ended June 30, 2020, we determined that a portion of our deferred tax assets related to U.S. interest expense carryforwards were not more likely than not to be realized and, as such, we recorded a valuation allowance resulting in tax expense of approximately $36.0 million during the second quarter of 2020.

As enacted under the TCJA on December 22, 2017, and as amended by the the CARES Act, section 163(j) of the Internal Revenue Code generally limits the deductibility of net business interest expense to 30% (or for certain years as provided under the CARES Act, 50%) of “adjusted taxable income” for taxable years beginning after December 31, 2017. On July 28, 2020, the Internal Revenue Service and the U.S. Department of Treasury issued final regulations (the Final Regulations) and concurrently issued new proposed regulations (the New Proposed Regulations) under section 163(j) that provide a number of important additional changes and clarifications to the Final Regulations. Based upon the Final Regulations and New Proposed Regulations, which were issued during the three months ended September 30, 2020, as well as the amendments to section 163(j) made by the CARES Act, we have determined that our deferred tax assets related to U.S. interest expense carryforwards are more likely than not to be realized and, as such, we have released the valuation allowance recorded during the second quarter of 2020 resulting in approximately $36.0 million of income tax benefit during the three month period ended September 30, 2020.

Due to the uncertainty associated with the extent and ultimate impact of COVID-19 on global automotive production volumes, we may experience lower than projected earnings in certain jurisdictions in future periods, and it is reasonably possible that changes in valuation allowances could be recognized in the next twelve months as a result.

During the nine months ended September 30, 2020, we finalized an advance pricing agreement in a foreign jurisdiction, which resulted in a tax benefit of approximately $6.8 million, and we recognized a tax benefit of approximately $7.0 million related to our ability to carry back projected current year losses under the CARES Act to years with the previous 35% tax rate. This is in addition to a net tax benefit of approximately $7.5 million that we recognized in the first quarter of 2020 related to our ability to carry back losses from prior years under the CARES Act. See Note 1 - Organization and Basis of Presentation for additional detail regarding the CARES Act.

Our effective income tax rates for the three and nine months ended September 30, 2020 vary from our effective income tax rates for the three and nine months ended September 30, 2019, as a result of the items discussed above. Further, our effective income tax rate for the nine months ended September 30, 2020 varies from our effective income tax rate for the nine months ended September 30, 2019 as a result of the impact of the goodwill impairment charge recorded during the first nine months of 2020, which had no corresponding income tax benefit. In addition, in the first nine months of 2019, we recognized an income tax benefit of $9.3 million related to final regulations issued by the Department of Treasury and Internal Revenue Service in the first quarter of 2019. The final regulations changed the manner in which we were required to compute the one-time transition tax under the TCJA that was imposed on certain foreign earnings for which U.S. income tax was previously deferred.

For the three and nine months ended September 30, 2020 and 2019, our effective income tax rates vary from the U.S. federal statutory rate primarily due to favorable foreign tax rates, the impact of tax credits, and the effect of the items described above.

We operate in multiple jurisdictions throughout the world and the income tax returns of several subsidiaries in various tax jurisdictions are currently under examination. We are currently under a U.S. federal income tax examination for the years 2015 through 2018. Generally, we are no longer subject to U.S. federal, state and local, or non-U.S. income tax examinations by tax authorities for years prior to 2013. In the second quarter of 2020, we finalized an advance pricing agreement in a foreign jurisdiction, which resulted in a cash payment to the tax authorities of $18.5 million and a reduction of our liability for unrecognized tax benefits and related interest and penalties of $25.3 million.

Based on the status of ongoing tax 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. We will continue to monitor the progress and conclusions of all ongoing audits and other communications with tax authorities, and will adjust our estimated liability as necessary. As of September 30, 2020 and December 31, 2019, we have recorded a liability for unrecognized income tax benefits and related interest and penalties of $23.3 million and $52.6 million, respectively.

11. EARNINGS (LOSS) 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 non-forfeitable 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):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	**2019**	**2020**	**2019**
	(in millions, except per share data)			
Numerator				
Net income (loss) attributable to AAM	**$ 117.2**	$ (124.2)	**$ (597.3)**	$ (30.1)
Less: Net income attributable to participating securities	**(5.1)**	—	**—**	—
Net income (loss) attributable to common shareholders - Basic and Dilutive	**$ 112.1**	$ (124.2)	**$ (597.3)**	$ (30.1)
Denominators				
Basic common shares outstanding -				
Weighted-average shares outstanding	**118.4**	115.8	**117.7**	115.6
Less: Participating securities	**(5.1)**	(3.3)	**(4.7)**	(3.3)
Weighted-average common shares outstanding	**113.3**	112.5	**113.0**	112.3
Effect of dilutive securities -				
Dilutive stock-based compensation	**—**	—	**—**	—
Diluted shares outstanding -				
Adjusted weighted-average shares after assumed conversions	**113.3**	112.5	**113.0**	112.3
Basic EPS	**$ 0.99**	$ (1.10)	**$ (5.28)**	$ (0.27)
Diluted EPS	**$ 0.99**	$ (1.10)	**$ (5.28)**	$ (0.27)

12. RECLASSIFICATIONS OUT OF ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) (AOCI)

Reclassification adjustments and other activity impacting accumulated other comprehensive income (loss) during the three months ended September 30, 2020 and September 30, 2019 are as follows *(in millions)*:

	Defined Benefit Plans	Foreign Currency Translation Adjustments	Unrecognized Gain (Loss) on Cash Flow Hedges	Total
Balance at June 30, 2020	**$ (256.6)**	**$ (144.9)**	**$ (41.7)**	**$ (443.2)**
Other comprehensive income (loss) before reclassifications	**—**	**14.0**	**(7.8)**	**6.2**
Income tax effect of other comprehensive income (loss) before reclassifications	**—**	**—**	**2.6**	**2.6**
Amounts reclassified from accumulated other comprehensive loss	**2.1** (a)	**—**	**14.7** (b)	**16.8**
Income taxes reclassified into net income	**(0.4)**	**—**	**(2.8)**	**(3.2)**
Net change in accumulated other comprehensive loss	**1.7**	**14.0**	**6.7**	**22.4**
Balance at September 30, 2020	**$ (254.9)**	**$ (130.9)**	**$ (35.0)**	**$ (420.8)**

	Defined Benefit Plans	Foreign Currency Translation Adjustments	Unrecognized Gain (Loss) on Cash Flow Hedges	Total
Balance at June 30, 2019	$ (239.8)	$ (94.2)	$ (19.4)	$ (353.4)
Other comprehensive income (loss) before reclassifications	(2.9)	(37.1)	(0.7)	(40.7)
Income tax effect of other comprehensive income (loss) before reclassifications	0.6	—	(0.1)	0.5
Amounts reclassified from accumulated other comprehensive loss	1.3 (a)	—	(6.8) (b)	(5.5)
Income taxes reclassified into net income	(0.3)	—	1.2	0.9
Net change in accumulated other comprehensive loss	(1.3)	(37.1)	(6.4)	(44.8)
Balance at September 30, 2019	$ (241.1)	$ (131.3)	$ (25.8)	$ (398.2)

(a) *These amounts were reclassified from AOCI to Other income (expense), net for the three months ended September 30, 2020 and September 30, 2019.*

(b) *The amounts reclassified from AOCI included $1.3 million in cost of goods sold (COGS), $4.1 million in interest expense and $9.3 million in Other income (expense), net for the three months ended September 30, 2020 and $(0.9) million in COGS, $1.7 million in interest expense and $(7.6) million in Other income (expense), net for the three months ended September 30, 2019.*

Reclassification adjustments and other activity impacting accumulated other comprehensive income (loss) during the nine months ended September 30, 2020 and September 30, 2019 are as follows *(in millions)*:

	Defined Benefit Plans	Foreign Currency Translation Adjustments	Unrecognized Gain (Loss) on Cash Flow Hedges	Total
Balance at December 31, 2019	**$ (259.9)**	**$ (101.2)**	**$ (15.7)**	**$ (376.8)**
Other comprehensive income (loss) before reclassifications	—	**(29.7)**	**(42.6)**	**(72.3)**
Income tax effect of other comprehensive income (loss) before reclassifications	—	—	**5.7**	**5.7**
Amounts reclassified from accumulated other comprehensive loss	**6.2** (a)	—	**21.7** (b)	**27.9**
Income taxes reclassified into net income	**(1.2)**	—	**(4.1)**	**(5.3)**
Net change in accumulated other comprehensive loss	**5.0**	**(29.7)**	**(19.3)**	**(44.0)**
Balance at September 30, 2020	**$ (254.9)**	**$ (130.9)**	**$ (35.0)**	**$ (420.8)**

	Defined Benefit Plans	Foreign Currency Translation Adjustments	Unrecognized Gain (Loss) on Cash Flow Hedges	Total
Balance at December 31, 2018	$ (213.9)	$ (96.6)	$ (1.1)	$ (311.6)
Other comprehensive income (loss) before reclassifications	(30.8) (c)	(34.7)	(22.4)	(87.9)
Income tax effect of other comprehensive income (loss) before reclassifications	0.6	—	5.7	6.3
Amounts reclassified from accumulated other comprehensive income (loss)	3.8 (a)	—	(9.6) (b)	(5.8)
Income taxes reclassified into net income	(0.8)	—	1.6	0.8
Net change in accumulated other comprehensive income (loss)	(27.2)	(34.7)	(24.7)	(86.6)
Balance at September 30, 2019	$ (241.1)	$ (131.3)	$ (25.8)	$ (398.2)

(a) *These amounts were reclassified from AOCI to Other income (expense), net for the nine months ended September 30, 2020 and September 30, 2019.*

(b) *The amounts reclassified from AOCI included $2.3 million in COGS, $10.1 million in interest expense and $9.3 million in Other income (expense), net for the nine months ended September 30, 2020 and $(1.8) million in COGS, $(0.2) million in interest expense and $(7.6) million in Other income (expense), net for the nine months ended September 30, 2019.*

(c) *ASU 2018-02 became effective on January 1, 2019, and we elected to reclassify the stranded tax effects caused by the 2017 Tax Cuts and Jobs Act, resulting in a decrease in Accumulated other comprehensive income (loss) of $27.7 million at January 1, 2019.*

13. REVENUE FROM CONTRACTS WITH CUSTOMERS

Net sales recognized from contracts with customers, disaggregated by segment and geographical location, are presented in the following table for the three and nine months ended September 30, 2020 and 2019. Net sales are attributed to regions based on the location of production. Intersegment sales have been excluded from the table.

In the fourth quarter of 2019, we completed the Casting Sale. The Casting Sale did not include the entities that conduct AAM's casting operations in El Carmen, Mexico, which are now included in our Driveline segment. The Casting Sale did not qualify for classification as discontinued operations, as it did not represent a strategic shift in our business that has had, or will have, a major effect on our operations and financial results. As such, we continue to present Casting as a segment in the table below for the three and nine months ended September 30, 2019, and the reported amounts are now comprised entirely of the U.S. casting operations that were included in the sale. The amounts previously reported in our Casting segment for the retained operations in El Carmen, Mexico have been reclassified to our Driveline segment for the three and nine months ended September 30, 2019.

	Three Months Ended September 30, 2020			
	Driveline	**Metal Forming**	**Casting**	**Total**
North America	**$ 870.8**	**$ 252.1**	**$ —**	**$ 1,122.9**
Asia	**116.7**	**12.2**	**—**	**128.9**
Europe	**94.1**	**53.4**	**—**	**147.5**
South America	**12.3**	**2.5**	**—**	**14.8**
Total	**$ 1,093.9**	**$ 320.2**	**$ —**	**$ 1,414.1**

	Three Months Ended September 30, 2019			
	Driveline	**Metal Forming**	**Casting**	**Total**
North America	$ 917.0	$ 296.9	$ 155.4	$ 1,369.3
Asia	131.0	10.3	—	141.3
Europe	77.9	61.1	—	139.0
South America	26.5	1.3	—	27.8
Total	$ 1,152.4	$ 369.6	$ 155.4	$ 1,677.4

	Nine Months Ended September 30, 2020			
	Driveline	**Metal Forming**	**Casting**	**Total**
North America	**$ 1,922.5**	**$ 597.4**	**$ —**	**$ 2,519.9**
Asia	**307.9**	**28.3**	**—**	**336.2**
Europe	**239.3**	**139.1**	**—**	**378.4**
South America	**32.7**	**5.7**	**—**	**38.4**
Total	**$ 2,502.4**	**$ 770.5**	**$ —**	**$ 3,272.9**

	Nine Months Ended September 30, 2019			
	Driveline	**Metal Forming**	**Casting**	**Total**
North America	$ 2,688.9	$ 903.7	$ 509.1	$ 4,101.7
Asia	419.3	25.7	—	445.0
Europe	270.3	201.0	—	471.3
South America	78.2	4.7	—	82.9
Total	$ 3,456.7	$ 1,135.1	$ 509.1	$ 5,100.9

Contract Assets and Liabilities

The following table summarizes our beginning and ending balances for accounts receivable and contract liabilities associated with our contracts with customers:

	Accounts Receivable, Net	Contract Liabilities (Current)	Contract Liabilities (Long-term)
December 31, 2019	$ 815.4	$ 18.9	$ 83.7
September 30, 2020	900.8	22.8	75.6
Increase/(decrease)	$ 85.4	$ 3.9	$ (8.1)

Contract liabilities relate to deferred revenue associated with various settlements and commercial agreements for which we have a future performance obligation to the customer. We recognize this deferred revenue into revenue over the life of the associated program as we satisfy our performance obligations to the customer. We do not have contract assets as defined in ASC 606. During the three and nine months ended September 30, 2020, we amortized $5.4 million and $17.3 million, respectively, of previously recorded contract liabilities into revenue as we satisfied performance obligations with our customers.

14. SEGMENT REPORTING

Our business is organized into Driveline and Metal Forming segments, with each representing a reportable segment under ASC 280 *Segment Reporting*. In the fourth quarter of 2019, we completed the Casting Sale, which did not include the entities that conduct AAM's casting operations in El Carmen, Mexico, which are now included in our Driveline segment. The Casting Sale did not qualify for classification as discontinued operations, as it did not represent a strategic shift in our business that has had, or will have, a major effect on our operations and financial results. As such, we continue to present Casting as a segment in the table below for the three and nine months ended September 30, 2019, and the reported amounts are now comprised entirely of the U.S. casting operations that were included in the sale. The amounts previously reported in our Casting segment for the retained operations in El Carmen, Mexico have been reclassified to our Driveline segment for the three and nine months ended September 30, 2019.

The results of each segment are regularly reviewed by the chief operating decision maker to assess the performance of the segment and make decisions regarding the allocation of resources to the segments.

Our product offerings by segment are as follows:

- Driveline products consist primarily of front and rear axles, driveshafts, differential assemblies, clutch modules, balance shaft systems, disconnecting driveline technology, and electric and hybrid driveline products and systems for light trucks, sport utility vehicles (SUVs), crossover vehicles, passenger cars and commercial vehicles; and
- Metal Forming products consist primarily of axle and transmission shafts, ring and pinion gears, differential gears and assemblies, connecting rods and variable valve timing products for Original Equipment Manufacturers and Tier 1 automotive suppliers.

We use Segment Adjusted EBITDA as the measure of earnings to assess the performance of each segment and determine the resources to be allocated to the segments. We define EBITDA to be earnings before interest expense, income taxes, depreciation and amortization. Segment Adjusted EBITDA is defined as EBITDA for our reportable segments excluding the impact of restructuring and acquisition-related costs, debt refinancing and redemption costs, gain (loss) on the sale of a business, impairment charges, pension settlements and non-recurring items.

The following tables represent information by reportable segment for the three months ended September 30, 2020 and 2019 *(in millions)*:

	Three Months Ended September 30, 2020			
	Driveline	**Metal Forming**	**Casting**	**Total**
Sales	**$ 1,094.5**	**$ 433.2**	**$ —**	**$ 1,527.7**
Less: intersegment sales	**0.6**	**113.0**	**—**	**113.6**
Net external sales	**$ 1,093.9**	**$ 320.2**	**$ —**	**$ 1,414.1**
Segment Adjusted EBITDA	**$ 207.4**	**$ 89.7**	**$ —**	**$ 297.1**

	Three Months Ended September 30, 2019			
	Driveline	**Metal Forming**	**Casting**	**Total**
Sales	$ 1,186.8	$ 476.6	$ 168.4	$ 1,831.8
Less: intersegment sales	34.4	107.0	13.0	154.4
Net external sales	$ 1,152.4	$ 369.6	$ 155.4	$ 1,677.4
Segment Adjusted EBITDA	$ 181.0	$ 79.3	$ 5.5	$ 265.8

The following tables represent information by reportable segment for the nine months ended September 30, 2020 and 2019 *(in millions)*:

	Nine Months Ended September 30, 2020			
	Driveline	**Metal Forming**	**Casting**	**Total**
Sales	**$ 2,529.9**	**$ 1,005.8**	**$ —**	**$ 3,535.7**
Less: intersegment sales	**27.5**	**235.3**	**—**	**262.8**
Net external sales	**$ 2,502.4**	**$ 770.5**	**$ —**	**$ 3,272.9**
Segment Adjusted EBITDA	**$ 315.5**	**$ 142.8**	**$ —**	**$ 458.3**

	Nine Months Ended September 30, 2019			
	Driveline	**Metal Forming**	**Casting**	**Total**
Sales	$ 3,534.6	$ 1,444.1	$ 541.6	$ 5,520.3
Less: intersegment sales	77.9	309.0	32.5	419.4
Net external sales	$ 3,456.7	$ 1,135.1	$ 509.1	$ 5,100.9
Segment Adjusted EBITDA	$ 485.9	$ 250.2	$ 40.7	$ 776.8

The following table represents a reconciliation of Total Segment Adjusted EBITDA to consolidated income (loss) before income taxes for the three and nine months ended September 30, 2020 and 2019 *(in millions)*:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	**2019**	**2020**	**2019**
Total segment adjusted EBITDA	**$ 297.1**	$ 265.8	**$ 458.3**	$ 776.8
Interest expense	**(53.9)**	(54.3)	**(160.0)**	(163.9)
Depreciation and amortization	**(125.0)**	(134.2)	**(393.7)**	(411.5)
Restructuring and acquisition-related costs	**(9.7)**	(11.7)	**(38.6)**	(36.0)
Loss on sale of business	**—**	—	**(1.0)**	—
Debt refinancing and redemption costs	**(5.2)**	(5.1)	**(6.7)**	(7.5)
Impairment charges	**—**	(225.0)	**(510.0)**	(225.0)
Non-recurring items:				
Malvern Fire charges, net of recoveries	**(8.6)**	—	**(8.6)**	—
Income (loss) before income taxes	**$ 94.7**	$ (164.5)	**$ (660.3)**	$ (67.1)

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

This management's discussion and analysis (MD&A) should be read in conjunction with the unaudited condensed consolidated financial statements and notes appearing elsewhere in this Quarterly Report and our Annual Report on Form 10-K for the year ended December 31, 2019.

Unless the context otherwise requires, references to "we," "our," "us" or "AAM" shall mean collectively (i) American Axle & Manufacturing Holdings, Inc. (Holdings), a Delaware corporation, (ii) American Axle & Manufacturing, Inc. (AAM, Inc.), a Delaware corporation, and its direct and indirect subsidiaries, and, (iii) Metaldyne Performance Group, Inc. (MPG) and its direct and indirect subsidiaries. AAM Inc. and MPG are wholly-owned subsidiaries of Holdings.

COMPANY OVERVIEW

We are a global Tier 1 supplier to the automotive industry. We design, engineer and manufacture driveline and metal forming products that are making the next generation of vehicles smarter, lighter, safer and more efficient. We employ approximately 20,000 associates, operating at nearly 80 facilities in 17 countries, to support our customers on global and regional platforms with a focus on quality, operational excellence and technology leadership.

Major Customers

We are a primary supplier of driveline components to General Motors Company (GM) for its full-size rear-wheel drive (RWD) light trucks, sport utility vehicles (SUVs), and crossover vehicles manufactured in North America, supplying a significant portion of GM's rear axle and four-wheel drive and all-wheel drive (4WD/AWD) axle requirements for these vehicle platforms. We also supply GM with various products from our Metal Forming segment. Sales to GM were approximately 40% of our consolidated net sales in the first nine months of 2020, 38% in the first nine months of 2019, and 37% for the full year 2019.

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. In addition, we sell various products to FCA from our Metal Forming segment. Sales to FCA were approximately 18% of our consolidated net sales in the first nine months of 2020, 16% in the first nine months of 2019, and 17% for the full year 2019.

We are also a supplier to Ford Motor Company (Ford) for driveline system products on certain vehicle programs, and we sell various products to Ford from our Metal Forming segment. Sales to Ford were approximately 12% of our consolidated net sales in the first nine months of 2020, and were approximately 9% for both the first nine months of 2019 and the full year of 2019.

No other customer represented 10% or more of consolidated net sales during these periods.

Impact of Novel Coronavirus (COVID-19)

COVID-19 Operational Impact and AAM Actions

In March of 2020, COVID-19 was designated by the World Health Organization as a pandemic illness and began to significantly disrupt global automotive production. In an effort to mitigate the spread of COVID-19, many governmental and public health agencies in locations in which we operate implemented shelter-in-place orders or similar measures. The majority of our customers temporarily ceased or significantly reduced production near the end of March, which continued into the second half of the second quarter. As a result, substantially all of our manufacturing facilities either temporarily suspended production or experienced significant reductions in volumes during this period.

At AAM, safety is our top responsibility and that includes the health and wellness of our associates globally. In response to COVID-19, we instituted several operational measures to ensure the safety of our associates, which included the following:

- Assembled a COVID-19 Task Force comprised of AAM's senior leadership working closely with associates across several functions and regions to coordinate decision making and communication related to actions taken by AAM to mitigate the impact of COVID-19;
- Suspended or reduced production at manufacturing facilities and directed associates who could do so to work remotely;
- Maintained communication with customers, including planning for business resumption and monitoring announcements regarding new program deferrals or other changes;
- Initiated thorough cleaning and decontamination procedures at many of our manufacturing facilities in preparation for resuming production; and
- Designed additional safety measures to further protect associates as production is restored and our associates resume working in our global facilities.

By the end of the first quarter of 2020, our manufacturing locations in Asia, which were impacted by COVID-19 earlier than other global regions, were beginning to stabilize and return to more normalized levels of production. We restarted operations in North America and Europe in May 2020, and we have continued to ramp up production, along with our customers and supply base, through the third quarter of 2020. Continuing to maintain more normalized levels of production will depend on future developments, including the potential extension of shelter-in-place orders and increased levels of production by our customers, which are outside of our control. We continue to monitor the impact of COVID-19 on our suppliers, as well as on our customers and their suppliers.

Financial Impact of COVID-19

We estimate that the impact of COVID-19 on net sales was approximately $87 million and $1,203 million for the three and nine months ended September 30, 2020, respectively. Further, we estimate that the impact to gross profit of this reduction in net sales was approximately $16 million and $362 million for the three and nine months ended September 30, 2020, respectively. Due to the significant uncertainty associated with the extent of the impact of COVID-19, including the possibility of a resurgence of COVID-19 cases and our ability to sustain more normalized levels of production, we cannot estimate the ultimate impact of COVID-19 on our results of operations and financial condition.

In order to mitigate the financial impact of COVID-19, we have continued our emphasis on cost management, and have implemented additional measures to adjust to our customers’ revised production schedules, including:

- Continuing to flex our variable cost structure;
- Continuing to manage our controllable expenses, net of costs to ensure the health and safety of our associates;
- Reducing the annual cash retainer for each non-employee director by 40% through September 30, 2020;
- Reducing salaries for executive officers by 30% and for certain other associates by various percentages depending on level through September 30, 2020;
- Reducing our projected capital expenditures for the year;
- Amending our Credit Agreement to, among other things, revise our financial maintenance covenants to provide additional financial flexibility; and
- Pursuing options to defer and reduce tax payments through the CARES Act and similar global initiatives.

The measures we are taking to address the impact of COVID-19 are expected to remain in place until further clarity can be achieved regarding the recovery and stabilization of the global economy, as well as the resulting impact of COVID-19 on the global automotive industry. We expect to adjust our use of these measures, to the extent possible, based on production volumes and customer demand.

RESULTS OF OPERATIONS — THREE MONTHS ENDED SEPTEMBER 30, 2020 AS COMPARED TO THREE MONTHS ENDED SEPTEMBER 30, 2019

Net Sales Net sales were $1,414.1 million in the third quarter of 2020, as compared to $1,677.4 million in the third quarter of 2019. Our change in sales in the third quarter of 2020, as compared to the third quarter of 2019, primarily reflects an estimated reduction of approximately $87 million associated with the decline in global automotive production as a result of COVID-19, and a reduction of approximately $155 million as a result of the sale of the U.S. operations of our Casting business that was completed in the fourth quarter of 2019 (the Casting Sale). Net sales in the third quarter of 2020, as compared to the third quarter of 2019, also decreased by approximately $15 million associated with the effect of metal market pass-throughs to our customers and the impact of foreign exchange related to translation adjustments.

Cost of Goods Sold Cost of goods sold was $1,164.3 million in the third quarter of 2020, as compared to $1,428.7 million in the third quarter of 2019. The change in cost of goods sold principally reflects an estimated reduction of approximately $71 million associated with the decline in global automotive production as a result of COVID-19, and a reduction of $153 million as a result of the Casting Sale. Cost of goods sold was also impacted by a decrease of approximately $15 million related to metal market pass-through costs and the impact of foreign exchange, as well as the impact of improved operating performance and lower launch costs and our emphasis on cost management, including the additional measures that we implemented in response to the impact of COVID-19.

For the three months ended September 30, 2020, material costs were approximately 58% of total cost of goods sold, as compared to approximately 55% for the three months ended September 30, 2019.

Gross Profit Gross profit was $249.8 million in the third quarter of 2020, as compared to $248.7 million in the third quarter of 2019. Gross margin was 17.7% in the third quarter of 2020, as compared to 14.8% in the third quarter of 2019. Gross profit and gross margin were impacted by the factors discussed in Net Sales and Cost of Goods Sold above.

Selling, General and Administrative Expenses (SG&A) SG&A (including research and development (R&D)) was $66.5 million or 4.7% of net sales in the third quarter of 2020, as compared to $92.7 million or 5.5% of net sales in the third quarter of 2019. R&D expense, net of customer engineering, design and development (ED&D) recoveries, was approximately $18.0 million in the third quarter of 2020, as compared to $37.4 million in the third quarter of 2019. The decrease in SG&A expense in the three months ended September 30, 2020, as compared to the three months ended September 30, 2019, was primarily attributable to lower net R&D expense, which includes a customer ED&D recovery of approximately $15 million. The decrease in SG&A also reflects lower compensation-related expense due, in part, to our restructuring initiatives and the impact of our emphasis on cost management, including the additional measures that we implemented in response to the impact of COVID-19.

Amortization of Intangible Assets Amortization expense related to intangible assets was $21.6 million for the three months ended September 30, 2020 and $23.7 million for the three months ended September 30, 2019. The reduction in amortization expense related to intangible assets reflects the Casting Sale and the disposal of the intangible assets associated with this business.

Impairment Charge In conjunction with the Casting Sale, the assets and liabilities associated with this business met the criteria to be classified as held-for-sale in our Condensed Consolidated Balance Sheet as of September 30, 2019. Upon reclassification to held-for-sale in the third quarter of 2019, we recorded a pre-tax impairment charge of $225.0 million to reduce the carrying value of this business to fair value less cost to sell.

Restructuring and Acquisition-Related Costs Restructuring and acquisition-related costs were $9.7 million in the third quarter of 2020 and $11.7 million in the third quarter of 2019. See Note 2 - Restructuring and Acquisition-Related Costs for additional detail.

Operating Income (Loss) Operating income was $152.0 million in the third quarter of 2020, as compared to operating loss of $104.4 million in the third quarter of 2019. Operating margin was 10.7% in the third quarter of 2020, as compared to (6.2)% in the third quarter of 2019. The changes in operating income (loss) and operating margin were primarily due to factors discussed in Net Sales, Cost of Goods Sold, SG&A and Impairment Charge above.

Interest Expense and Interest Income Interest expense was $53.9 million in the third quarter of 2020, as compared to $54.3 million in the third quarter of 2019. Interest income was $3.4 million in the third quarter of 2020, as compared to $2.2 million in the third quarter of 2019. The weighted-average interest rate of our long-term debt outstanding was 5.6% in the third quarter of 2020 and 5.8% in the third quarter of 2019.

Debt Refinancing and Redemption Costs In the third quarter of 2020, we voluntarily redeemed the remaining portion of our 6.625% Notes due 2022, which resulted in a principal payment of $350 million and the payment of $5.7 million in accrued interest. We expensed approximately $1.3 million for the write-off of the unamortized debt issuance costs that we had been amortizing over the expected life of the borrowing, and approximately $3.9 million for the payment of an early redemption premium.

In the third quarter of 2019, Holdings, AAM, Inc., and certain subsidiaries of Holdings entered into the First Amendment to the Credit Agreement. As a result, we expensed $5.1 million for the write-off of the unamortized debt issuance costs related to the existing Term Loan A Facility and a portion of the unamortized debt issuance costs related to our Term Loan B Facility that we had been amortizing over the expected life of the borrowings.

Other Expense, Net Other expense, net includes the net effect of foreign exchange gains and losses, our proportionate share of earnings from equity in unconsolidated subsidiaries, and all components of net periodic pension and postretirement benefit costs other than service cost. Other expense, net was $1.6 million in the third quarter of 2020, as compared to $2.9 million in the third quarter of 2019.

Income Tax Benefit Income tax was a benefit of $22.5 million for the three months ended September 30, 2020, as compared to a benefit of $40.4 million for the three months ended September 30, 2019. Our effective income tax rate was (23.8)% in the third quarter of 2020, as compared to 24.6% in the third quarter of 2019.

We review the likelihood that we will realize the benefit of deferred tax assets and estimate whether recoverability of our deferred tax assets is "more likely than not" based on the available evidence. During the previous three month period ended June 30, 2020, we determined that a portion of our deferred tax assets related to U.S. interest expense carryforwards were not more likely than not to be realized and, as such, we recorded a valuation allowance resulting in tax expense of approximately $36.0 million during the second quarter of 2020.

As enacted under the Tax Cuts and Jobs Act (TCJA), on December 22, 2017, and as amended by the Coronavirus Aid, Relief, and Economic Security Act (the CARES Act), section 163(j) of the Internal Revenue Code generally limits the deductibility of net business interest expense to 30% (or for certain years as provided under the CARES Act, 50%) of “adjusted taxable income” for taxable years beginning after December 31, 2017. On July 28, 2020, the Internal Revenue Service and the U.S. Department of Treasury issued final regulations (the Final Regulations) and concurrently issued new proposed regulations (the New Proposed Regulations) under section 163(j) that provide a number of important additional changes and clarifications to the Final Regulations. Based upon the Final Regulations and New Proposed Regulations, which were issued during the three months ended September 30, 2020, as well as the amendments to section 163(j) made by the CARES Act, we have determined that our deferred tax assets related to U.S. interest expense carryforwards are more likely than not to be realized and, as such, we have released the valuation allowance recorded during the second quarter of 2020 resulting in approximately $36.0 million in tax benefit during the three month period ended September 30, 2020.

Due to the uncertainty associated with the extent and ultimate impact of COVID-19 on global automotive production volumes, we may experience lower than projected earnings in certain jurisdictions in future periods, and it is reasonably possible that changes in valuation allowances could be recognized in the next twelve months as a result.

Our effective income tax rate for the three months ended September 30, 2020 varies from our effective income tax rate for the three months ended September 30, 2019 as a result of the items described above. For the three months ended September 30, 2020 and 2019, our effective income tax rates vary from the U.S. federal statutory rate of 21% primarily due to favorable foreign tax rates, as well as the impact of tax credits and the effect of the items described above.

Net Income (Loss) Attributable to AAM and Earnings (Loss) Per Share (EPS) Net income (loss) attributable to AAM was income of $117.2 million in the third quarter of 2020, as compared to a loss of $124.2 million in the third quarter of 2019. Diluted earnings per share was $0.99 in the third quarter of 2020, as compared to diluted loss per share of $1.10 in the third quarter of 2019. Net income (loss) attributable to AAM and EPS for the third quarters of 2020 and 2019 were primarily impacted by the factors discussed above.

RESULTS OF OPERATIONS — NINE MONTHS ENDED SEPTEMBER 30, 2020 AS COMPARED TO NINE MONTHS ENDED SEPTEMBER 30, 2019

Net Sales Net sales were $3,272.9 million in the first nine months of 2020 as compared to $5,100.9 million in the first nine months of 2019. Our change in sales in the first nine months of 2020, as compared to the first nine months of 2019, primarily reflects an estimated reduction of approximately $1,203 million associated with the decline in global automotive production as a result of COVID-19, and a reduction of $509 million as a result of the Casting Sale. Net sales for the first nine months of 2020, as compared to the first nine months of 2019, also decreased by approximately $88 million associated with the effect of metal market pass-throughs to our customers and the impact of foreign exchange related to translation adjustments.

Cost of Goods Sold Cost of goods sold was $2,926.7 million in the first nine months of 2020 as compared to $4,381.7 million in the first nine months of 2019. The change in cost of goods sold principally reflects an estimated reduction of approximately $841 million associated with the decline in global automotive production as a result of COVID-19, and a reduction of $492 million as a result of the Casting Sale. Cost of goods sold was also impacted by a decrease of approximately $88 million related to metal market pass-through costs and the impact of foreign exchange, as well as the impact of improved operating performance and lower launch costs and our emphasis on cost management, including the additional measures that we implemented in response to the impact of COVID-19.

For the nine months ended September 30, 2020, material costs were approximately 54% of total costs of goods sold as compared to approximately 56% for the nine months ended September 30, 2019. Material costs as a percentage of cost of goods sold declined as a result of lower product shipments caused by COVID-19, which drove lower material costs and caused fixed costs to be a greater component of cost of goods sold.

Gross Profit Gross profit was $346.2 million in the first nine months of 2020 as compared to $719.2 million in the first nine months of 2019. Gross margin was 10.6% in the first nine months of 2020 as compared to 14.1% in the first nine months of 2019. Gross profit and gross margin were impacted by the factors discussed in Net Sales and Cost of Goods Sold above. While we were able to significantly reduce our variable costs during the nine months ended September 30, 2020, the sharp decline in sales that began during the first quarter and extended into the second quarter, as well as the magnitude of the decline in sales, resulted in a reduction of both gross profit and gross margin.

SG&A SG&A (including R&D) was $230.6 million or 7.0% of net sales in the first nine months of 2020 as compared to $274.7 million or 5.4% of net sales in the first nine months of 2019. R&D expense, net of ED&D recoveries, was approximately $86.3 million in the first nine months of 2020 as compared to $104.9 million in the first nine months of 2019. The decrease in SG&A in the first nine months of 2020, as compared to the first nine months of 2019, was primarily attributable to lower net R&D expense, which includes a customer ED&D recovery of approximately $15 million. The decrease in SG&A also reflects lower compensation-related expense due, in part, to our restructuring initiatives and the impact of our emphasis on cost management, including the additional measures that we implemented in response to the impact of COVID-19.

The increase in SG&A as a percentage of sales during the nine months ended September 30, 2020, as compared to the nine months ended September 30, 2019, was primarily attributable to the decline in sales as a result of COVID-19.

Amortization of Intangible Assets Amortization expense related to intangible assets for the nine months ended September 30, 2020 was $65.0 million as compared to $73.6 million for the nine months ended September 30, 2019. The reduction in amortization expense related to intangible assets reflects the Casting Sale and the disposal of the intangible assets associated with this business.

Impairment Charges In the first nine months of 2020, the reduction in global automotive production volumes caused by the impact of COVID-19 represented an indicator to test our goodwill for impairment. As a result of this goodwill impairment test, we determined that the carrying values of our Driveline and Metal Forming reporting units were greater than their respective fair values. As such, we recorded a total goodwill impairment charge of $510.0 million in the first nine months of 2020. See Note 3 - Goodwill and Other Intangible Assets for further detail.

In conjunction with the Casting Sale, the assets and liabilities associated with this business met the criteria to be classified as held-for-sale in our Condensed Consolidated Balance Sheet as of September 30, 2019. Upon reclassification to held-for-sale in the third quarter of 2019, we recorded a pre-tax impairment charge of $225.0 million to reduce the carrying value of this business to fair value less cost to sell.

Restructuring and Acquisition-Related Costs Restructuring and acquisition-related costs were $38.6 million for the nine months ended September 30, 2020, as compared to $36.0 million for the nine months ended September 30, 2019. We expect to incur approximately $70 million to $80 million of total restructuring charges in 2020 and we expect to incur integration charges of $10 million to $15 million in 2020 as we finalize the integration of ERP systems at legacy MPG locations. See Note 2 - Restructuring and Acquisition-Related Costs for additional detail regarding our restructuring and integration activity.

Loss on Sale of Business In the first nine months of 2020, we finalized certain customary post-closing calculations associated with the Casting Sale, resulting in an additional loss on sale of $1.0 million.

Operating Income (Loss) Operating income (loss) was a loss of $499.0 million in the first nine months of 2020 as compared to income of $109.9 million in the first nine months of 2019. Operating margin was (15.2)% in the first nine months of 2020 as compared to 2.2% in the first nine months of 2019. The changes in operating income (loss) and operating margin were due primarily to the factors discussed in Net Sales, Cost of Goods Sold, Gross Profit, SG&A, and Impairment Charges above.

Interest Expense and Interest Income Interest expense was $160.0 million in the first nine months of 2020 as compared to $163.9 million in the first nine months of 2019. Interest income was $9.2 million in the first nine months of 2020 as compared to $3.4 million in the first nine months of 2019. The weighted-average interest rate of our long-term debt outstanding was 5.6% for the nine months ended September 30, 2020 and 5.9% for the nine months ended September 30, 2019. We expect our interest expense for the full year 2020 to be approximately $205 million to $215 million.

Debt Refinancing and Redemption Costs In the first quarter of 2020, we voluntarily redeemed $100 million of our 6.625% Notes due 2022. As a result, we expensed approximately $0.4 million for the write-off of the unamortized debt issuance costs that we had been amortizing over the expected life of the borrowing, and approximately $1.1 million for the payment of an early redemption premium.

In the third quarter of 2020, we voluntarily redeemed the remaining portion of our 6.625% Notes due 2022, which resulted in a principal payment of $350 million and the payment of $5.7 million in accrued interest. We expensed approximately $1.3 million for the write-off of the unamortized debt issuance costs that we had been amortizing over the expected life of the borrowing, and approximately $3.9 million for the payment of an early redemption premium.

In the first nine months of 2019, Holdings, AAM, Inc., and certain subsidiaries of Holdings entered into the First Amendment to the Credit Agreement. As a result, we expensed $5.1 million for the write-off of the unamortized debt issuance costs related to the existing Term Loan A Facility and a portion of the unamortized debt issuance costs related to our Term Loan B Facility that we had been amortizing over the expected life of the borrowings.

Also in the first nine months of 2019, we voluntarily redeemed the remaining balance outstanding under our 7.75% Notes due 2019. This resulted in a principal payment of $100 million and $0.3 million in accrued interest. We expensed approximately $0.1 million for the write-off of the unamortized debt issuance costs that we had been amortizing over the expected life of the borrowing, and approximately $2.2 million for an early redemption premium.

Other Expense, Net Other expense, net includes the net effect of foreign exchange gains and losses, our proportionate share of earnings from equity in unconsolidated subsidiaries, and all components of net periodic pension and postretirement benefit costs other than service cost. Other expense, net was $3.8 million in the first nine months of 2020 as compared to $9.0 million in the first nine months of 2019.

Income Tax Benefit Income tax was a benefit of $63.1 million for the nine months ended September 30, 2020 as compared to a benefit of $37.4 million for the nine months ended September 30, 2019. Our effective income tax rate was 9.6% in the first nine months of 2020 as compared to 55.7% in the first nine months of 2019.

During the nine months ended September 30, 2020, we recognized the impact of the items discussed under Income Tax Benefit in the "Results of Operations - Three Months Ended September 30, 2020 as Compared to Three Months Ended September 30, 2019" section of this MD&A. Additionally, we recognized a tax benefit in the second quarter of 2020 of approximately $7.0 million related to our ability to carry back projected current year losses under the CARES Act to years with the previous 35% tax rate. Further, during the nine months ended September 30, 2020, we recognized a net tax benefit of approximately $7.5 million related to our ability to carry back losses from prior years under the CARES Act and finalized an advance pricing agreement in a foreign jurisdiction, which resulted in a tax benefit of approximately $6.8 million.

Our effective income tax rate for the nine months ended September 30, 2020 varies from our effective income tax rate for the nine months ended September 30, 2019, as a result of the items described above, and also as a result of the impact of the goodwill impairment charge recorded during the first nine months of 2020, which had no corresponding income tax benefit. In addition, in the first nine months of 2019, we recognized an income tax benefit of $9.3 million related to final regulations issued by the Department of Treasury and Internal Revenue Service in the first quarter of 2019. The final regulations changed the manner in which we were required to compute the one-time transition tax under the Tax Cuts and Jobs Act that was imposed on certain foreign earnings for which U.S. income tax was previously deferred.

For the nine months ended September 30, 2020 and 2019, our effective income tax rates vary from the U.S. federal statutory rate of 21% primarily due to favorable foreign tax rates, as well as the impact of tax credits and the effect of the items described above.

Net Income (Loss) Attributable to AAM and Earnings (Loss) Per Share (EPS) Net income (loss) attributable to AAM was a loss of $597.3 million in the first nine months of 2020 as compared to a loss of $30.1 million in the first nine months of 2019. Diluted EPS was a loss of $5.28 per share in the first nine months of 2020 as compared to a loss of $0.27 per share in the first nine months of 2019. Net income (loss) attributable to AAM and EPS for the first nine months of 2020 and 2019 were primarily impacted by the factors discussed above.

SEGMENT REPORTING

Our business is organized into Driveline and Metal Forming segments, with each representing a reportable segment under ASC 280 *Segment Reporting*. In the fourth quarter of 2019, we completed the Casting Sale. The Casting Sale did not include the entities that conduct AAM's casting operations in El Carmen, Mexico, which are now included in our Driveline segment. The Casting Sale did not qualify for classification as discontinued operations, as it did not represent a strategic shift in our business that has had, or will have, a major effect on our operations and financial results. As such, we continue to present Casting as a segment in the tables below for the periods prior to the sale, and the reported amounts are now comprised entirely of the U.S. casting operations that were included in the sale. The amounts previously reported in our Casting segment for the retained operations in El Carmen, Mexico have been reclassified to our Driveline segment for the periods presented.

The results of each segment are regularly reviewed by the chief operating decision maker to assess the performance of the segment and make decisions regarding the allocation of resources to the segments.

Our product offerings by segment are as follows:

- Driveline products consist primarily of front and rear axles, driveshafts, differential assemblies, clutch modules, balance shaft systems, disconnecting driveline technology, and electric and hybrid driveline products and systems for light trucks, SUVs, crossover vehicles, passenger cars and commercial vehicles; and
- Metal Forming products consist primarily of axle and transmission shafts, ring and pinion gears, differential gears and assemblies, connecting rods and variable valve timing products for Original Equipment Manufacturers and Tier 1 automotive suppliers.

The following table represents sales by reportable segment for the three and nine months ended September 30, 2020 and 2019 *(in millions)*:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	**2019**	**2020**	**2019**
Driveline	**$ 1,094.5**	$ 1,186.8	**$ 2,529.9**	$ 3,534.6
Metal Forming	**433.2**	476.6	**1,005.8**	1,444.1
Casting	**—**	168.4	**—**	541.6
Eliminations	**(113.6)**	(154.4)	**(262.8)**	(419.4)
Net Sales	**$ 1,414.1**	$ 1,677.4	**$ 3,272.9**	$ 5,100.9

The change in Driveline sales for the three and nine months ended September 30, 2020, as compared to the three and nine months ended September 30, 2019, primarily reflects estimated reductions of approximately $73 million and $992 million, respectively, associated with the impact of the decline in global automotive production as a result of COVID-19. These estimated reductions include approximately $73 million and $934 million, respectively, related to external customers. The change in Driveline sales also reflects a reduction of approximately $11 million and $47 million, respectively, associated with the effect of metal market pass-throughs to our customers and the impact of foreign exchange related to translation adjustments.

The change in net sales in our Metal Forming segment in the three and nine months ended September 30, 2020, as compared to the three and nine months ended September 30, 2019, primarily reflects estimated reductions of approximately $15 million and $380 million, respectively, associated with the impact of the decline in global automotive production as a result of COVID-19. These estimated reductions include approximately $14 million and $269 million, respectively, related to external customers. Also for the three and nine months ended September 30, 2020, as compared to the three and nine months ended September 30, 2019, Metal Forming sales were impacted by a reduction of approximately $4 million and $41 million, respectively, associated with the effect of metal market pass-throughs to our customers and the impact of foreign exchange related to translation adjustments.

The change in net sales in our Casting segment in the three and nine months ended September 30, 2020, as compared to the three and nine months ended September 30, 2019, is the result of the Casting Sale that was completed in the fourth quarter of 2019 as AAM no longer operates in this business.

We use Segment Adjusted EBITDA as the measure of earnings to assess the performance of each segment and determine the resources to be allocated to the segments. We define EBITDA to be earnings before interest expense, income taxes, depreciation and amortization. Segment Adjusted EBITDA is defined as EBITDA for our reportable segments excluding the impact of restructuring and acquisition-related costs, debt refinancing and redemption costs, gain (loss) on the sale of a business, impairment charges, pension settlements, and non-recurring items.

The amounts for Segment Adjusted EBITDA for the three and nine months ended September 30, 2020 and 2019 are as follows *(in millions)*:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	**2019**	**2020**	**2019**
Driveline	**$ 207.4**	$ 181.0	**$ 315.5**	$ 485.9
Metal Forming	**89.7**	79.3	**142.8**	250.2
Casting	**—**	5.5	**—**	40.7
Total segment adjusted EBITDA	**$ 297.1**	$ 265.8	**$ 458.3**	$ 776.8

For the three months ended September 30, 2020, as compared to the three months ended September 30, 2019, the increase in Segment Adjusted EBITDA for the Driveline segment was primarily attributable to improved operating performance and lower launch costs, as well as the impact of a customer ED&D recovery of approximately $15 million during the third quarter of 2020. The increase in Driveline Segment Adjusted EBITDA also reflects our continued emphasis on cost management, and the additional measures that we implemented in response to COVID-19. These favorable factors were partially offset by lower net global automotive production volumes as a result of COVID-19.

For the nine months ended September 30, 2020, as compared to the nine months ended September 30, 2019, the change in Segment Adjusted EBITDA for the Driveline segment was primarily attributable to lower net global automotive production volumes as a result of the impact of COVID-19. This was partially offset by improved operating performance and lower launch costs, as well as the impact of a customer ED&D recovery of approximately $15 million. The change in Driveline Segment Adjusted EBITDA also reflects the impact of our continued emphasis on cost management, and the additional measures that we implemented in response to the impact of COVID-19.

The increase in Metal Forming Segment Adjusted EBITDA for the three months ended September 30, 2020, as compared to the three months ended September 30, 2019, was primarily attributable to improved operating performance, as well as the impact of our continued emphasis on cost management, and the additional measures that we implemented in response to COVID-19. These favorable factors were partially offset by lower net global automotive production volumes as a result of COVID-19.

The change in Metal Forming Segment Adjusted EBITDA for the nine months ended September 30, 2020, as compared to the nine months ended September 30, 2019, was primarily attributable to the impact of the decline in global automotive production as a result of the impact of COVID-19. This was partially offset by improved operating performance, as well as the impact of our continued emphasis on cost management, and the additional measures that we implemented in response to the impact of COVID-19.

The change in Segment Adjusted EBITDA for our Casting segment in the three and nine months ended September 30, 2020, as compared to the three and nine months ended September 30, 2019, was the result of the Casting Sale that was completed in the fourth quarter of 2019 as AAM no longer operates in this business.

Reconciliation of Non-GAAP and GAAP Information

In addition to results reported in accordance with accounting principles generally accepted in the United States of America (GAAP) in this MD&A, we have provided certain non-GAAP financial measures such as EBITDA and Total Segment Adjusted EBITDA. Such information is reconciled to its closest GAAP measure in accordance with Securities and Exchange Commission rules below.

We define EBITDA to be earnings before interest expense, income taxes, depreciation and amortization. Total Segment Adjusted EBITDA is defined as EBITDA for our reportable segments excluding the impact of restructuring and acquisition-related costs, debt refinancing and redemption costs, gain (loss) on the sale of a business, impairment charges, pension settlements, and non-recurring items. We believe that EBITDA and Total Segment Adjusted EBITDA are meaningful measures of performance as they are commonly utilized by management and investors to analyze operating performance and entity valuation. Our management, the investment community and the banking institutions routinely use EBITDA and Total Segment Adjusted EBITDA, together with other measures, to measure our operating performance relative to other Tier 1 automotive suppliers and to assess the relative mix of Adjusted EBITDA by segment. We also believe that Total Segment Adjusted EBITDA is a meaningful measure as it is used for operational planning and decision-making purposes. These non-GAAP financial measures are not and should not be considered a substitute for any GAAP measure. Additionally, non-GAAP financial measures as presented by AAM may not be comparable to similarly titled measures reported by other companies.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	**2019**	**2020**	**2019**
Net income (loss)	**$ 117.2**	$ (124.1)	**$ (597.2)**	$ (29.7)
Interest expense	**53.9**	54.3	**160.0**	163.9
Income tax benefit	**(22.5)**	(40.4)	**(63.1)**	(37.4)
Depreciation and amortization	**125.0**	134.2	**393.7**	411.5
EBITDA	**$ 273.6**	$ 24.0	**$ (106.6)**	$ 508.3
Restructuring and acquisition-related costs	**9.7**	11.7	**38.6**	36.0
Debt refinancing and redemption costs	**5.2**	5.1	**6.7**	7.5
Impairment charges	**—**	225.0	**510.0**	225.0
Loss on sale of business	**—**	—	**1.0**	—
Non-recurring items:				
Malvern Fire charges, net of recoveries	**8.6**	—	**8.6**	—
Total segment adjusted EBITDA	**$ 297.1**	$ 265.8	**$ 458.3**	$ 776.8

LIQUIDITY AND CAPITAL RESOURCES

Our primary liquidity needs are to fund debt service obligations, capital expenditures and working capital requirements, in addition to advancing our strategic initiatives. We believe that operating cash flow, available cash and cash equivalent balances and available borrowing capacity under our Senior Secured Credit Facilities and foreign credit facilities will be sufficient to meet these needs.

COVID-19 Considerations Related to Liquidity and Capital Resources

In order to mitigate the financial impact of COVID-19, we have implemented measures to conserve cash and protect our liquidity position, including:

- Continuing to flex our variable cost structure;
- Continuing to manage our controllable expenses, net of costs to ensure the health and safety of our associates;
- Reducing the annual cash retainer for each non-employee director by 40% through September 30, 2020;
- Reducing salaries for executive officers by 30% and for certain other associates by various percentages depending on level through September 30, 2020;
- Reducing our projected capital expenditures for the year;
- Amending our Credit Agreement to, among other things, revise our financial maintenance covenants to provide additional financial flexibility; and
- Pursuing options to defer and reduce tax payments through the CARES Act and similar global initiatives.

At September 30, 2020, we had nearly $1.5 billion of liquidity consisting of approximately $537 million of cash and cash equivalents, approximately $891 million of available borrowings under our Revolving Credit Facility and approximately $55 million of available borrowings under foreign credit facilities. We have no significant debt maturities before 2024. Based on our cash and cash equivalents, together with available borrowings under credit facilities, and the measures we are taking to conserve cash, we believe that our current liquidity position and projected operating cash flows will be sufficient to meet our primary cash needs for the next 12 months.

Operating Activities In the first nine months of 2020, net cash provided by operating activities was $246.4 million as compared to $378.6 million in the first nine months of 2019. The following factors impacted cash from operating activities in the first nine months of 2020, as compared to the first nine months of 2019:

Impact of COVID-19 We experienced lower earnings and cash flows from operating activities as a result of the significant reduction in production volumes during the nine months ended September 30, 2020 due to the impact of COVID-19.

Income taxes Income taxes paid (refunds received), net was a refund of $5.2 million in the first nine months of 2020 as compared to taxes paid of $45.7 million in the first nine months of 2019. During the third quarter of 2020, we received an income tax refund of approximately $31 million related to the utilization of net operating losses under the provisions of the CARES Act. See Note 1 - Organization and Basis of Presentation for additional detail regarding the CARES Act.

Also in the first nine months of 2020, we finalized an advance pricing agreement in a foreign jurisdiction, which resulted in a cash payment to the tax authorities of $18.5 million, and a reduction of our liability for unrecognized tax benefits and related interest and penalties of $25.3 million. As of September 30, 2020 and December 31, 2019, we have recorded a liability for unrecognized income tax benefits and related interest and penalties of $23.3 million and $52.6 million, respectively.

Restructuring and acquisition-related costs For the full year 2020, we expect restructuring and acquisition-related payments in cash flows from operating activities to be between $55 million and $70 million, and we expect the timing of cash payments to approximate the timing of charges incurred.

Pension and other postretirement benefits Due to the availability of our pre-funded pension balances (previous contributions in excess of prior required pension contributions) related to certain of our U.S. pension plans, we expect our regulatory pension funding requirements in 2020 to be approximately $1.5 million. We expect our cash payments for other postretirement benefit obligations in 2020, net of GM cost sharing, to be approximately $17 million.

Investing Activities In the first nine months of 2020, net cash used in investing activities was $149.2 million as compared to $335.5 million for the nine months ended September 30, 2019. Capital expenditures were $146.3 million in the first nine months of 2020 as compared to $335.3 million in the first nine months of 2019. We expect our capital spending in 2020 to be up to $250 million.

Financing Activities In the first nine months of 2020, net cash used in financing activities was $87.6 million, as compared to $140.1 million in the first nine months of 2019. The following factors impacted cash from financing activities in the first nine months of 2020 as compared to the first nine months of 2019:

Senior Secured Credit Facilities In 2019, Holdings, AAM, Inc., and certain subsidiaries of Holdings entered into the First Amendment (First Amendment) to the Credit Agreement. The First Amendment, among other things, established $340 million in incremental term loan A commitments with a maturity date of July 29, 2024 (Term Loan A Facility due 2024), reduced the availability under the Revolving Credit Facility from $932 million to $925 million and extended the maturity date of the Revolving Credit Facility from April 6, 2022 to July 29, 2024, and modified the applicable margin with respect to interest rates under the Term Loan A Facility due 2024 and interest rates and commitment fees under the Revolving Credit Facility. The applicable margin and the maturity date for the Term Loan B Facility remained unchanged. The proceeds of $340 million were used to repay all of the outstanding loans under the existing Term Loan A Facility and a portion of the outstanding Term Loan B Facility, resulting in no additional indebtedness. This also satisfies all payment requirements under the Term Loan B Facility until maturity in 2024.

In April 2020, Holdings, AAM, Inc., and certain subsidiaries of Holdings entered into the Second Amendment (Second Amendment) to the Credit Agreement. For the period from April 1, 2020 through March 31, 2022 (the Amendment Period), the Second Amendment, among other things, replaced the total net leverage ratio covenant with a new senior secured net leverage ratio covenant, reduced the minimum levels of the cash interest expense coverage ratio covenant, and modified certain covenants restricting the ability of Holdings, AAM and certain subsidiaries of Holdings to create, incur, assume or permit to exist certain additional indebtedness and liens and to make certain restricted payments, voluntary payments and distributions. The Second Amendment also increased the maximum levels of the total net leverage ratio covenant after the Amendment Period, modified the applicable margin with respect to interest rates under the Term Loan A Facility due 2024 and interest rates and commitment fees under the Revolving Credit Facility, and increased the minimum adjusted London Interbank Offered Rate for Eurodollar-based loans under the Term Loan A Facility due 2024 and Revolving Credit Facility. The applicable margin for the Term Loan B Facility remains unchanged. We paid debt issuance costs of $4.6 million in the nine months ended September 30, 2020 related to the Second Amendment.

The Senior Secured Credit Facilities provide back-up liquidity for our foreign credit facilities. We intend to use the availability of long-term financing under the Senior Secured Credit Facilities 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 Condensed Consolidated Balance Sheet.

At September 30, 2020, we had $891.4 million available under the Revolving Credit Facility. This availability reflects a reduction of $33.6 million for standby letters of credit issued against the facility. The borrowings under the Revolving Credit Facility are used for general corporate purposes.

6.875% Notes due 2028 In June 2020, we issued $400 million in aggregate principal amount of 6.875% senior notes due 2028 (the 6.875% Notes). Proceeds from the 6.875% Notes were used primarily to fund the redemption of the remaining $350 million of 6.625% senior notes due 2022 described below and for general corporate purposes. We paid debt issuance costs of $6.4 million in the nine months ended September 30, 2020 related to the 6.875% Notes.

Redemption of 6.625% Notes due 2022 In the first quarter of 2020, we voluntarily redeemed a portion of our 6.625% Notes due 2022. This resulted in a principal payment of $100.0 million and $2.0 million in accrued interest. We expensed approximately $0.4 million for the write-off of the unamortized debt issuance costs that we had been amortizing over the expected life of the borrowing, and approximately $1.1 million for the payment of an early redemption premium.

In the third quarter of 2020, we voluntarily redeemed the remaining portion of our 6.625% Notes due 2022, which resulted in a principal payment of $350 million and the payment of $5.7 million in accrued interest. We expensed approximately $1.3 million for the write-off of the unamortized debt issuance costs that we had been amortizing over the expected life of the borrowing, and approximately $3.9 million for the payment of an early redemption premium.

Redemption of 7.75% Notes due 2019 In May 2019, we voluntarily redeemed the remaining balance outstanding under our 7.75% Notes due 2019. This resulted in a principal payment of $100 million and $0.3 million in accrued interest. We expensed approximately $0.1 million for the write-off of the unamortized debt issuance costs that we had been amortizing over the expected life of the borrowing, and approximately $2.2 million for an early redemption premium.

Foreign credit facilities We utilize local currency credit facilities to finance the operations of certain foreign subsidiaries. At September 30, 2020, $104.5 million was outstanding under our foreign credit facilities, as compared to $106.0 million at December 31, 2019. At September 30, 2020, an additional $54.7 million was available under our foreign credit facilities.

Treasury stock Treasury stock increased by $2.7 million in the first nine months of 2020 to $212.0 million as compared to $209.3 million at year-end 2019, due to the withholding and repurchase of shares of AAM stock to satisfy employee tax withholding obligations due upon the vesting of performance shares and restricted stock units.

Subsidiary Guarantees of Registered Debt Securities Our 6.875% Notes, 6.50% Notes, 6.25% Notes (due 2026), and 6.25% Notes (due 2025) (collectively, the Notes) are senior unsecured obligations of AAM, Inc. (Issuer); all of which are fully and unconditionally guaranteed, on a joint and several basis, by Holdings and substantially all domestic subsidiaries of AAM, Inc. and MPG Inc (Subsidiary Guarantors). Holdings has no significant assets other than its 100% ownership in AAM, Inc. and MPG Inc., and no direct subsidiaries other than AAM, Inc. and MPG Inc.

Each guarantee by Holdings and/or any of the Subsidiary Guarantors is:

- a senior obligation of the relevant Subsidiary Guarantors;
- the unsecured and unsubordinated obligation of the relevant Subsidiary Guarantors; and
- of equal rank with all other existing and future unsubordinated and unsecured indebtedness of the relevant Subsidiary Guarantors.

Each guarantee by a Subsidiary Guarantor provides by its terms that it will be automatically, fully and unconditionally released and discharged upon:

- Any sale, exchange or transfer (by merger or otherwise) of the Capital Stock of such Subsidiary Guarantor, or the sale or disposition of all the assets of such Subsidiary Guarantor, which sale, exchange, transfer or disposition is made in compliance with the applicable provisions of the indentures;
- the exercise by the Issuer of its legal defeasance option or covenant defeasance option or the discharge of the Issuer’s obligations under the indentures in accordance with the terms of the indentures;
- the election of the Issuer to affect such a release following the date that such guaranteed Notes have an investment grade rating from both Standard & Poor's Ratings Group, Inc, and Moody's Investors Service, Inc.

The following represents summarized financial information of AAM Holdings, AAM Inc. and the Subsidiary Guarantors (collectively, the Combined Entities). The information has been prepared on a combined basis and excludes any investments of AAM Holdings, AAM Inc., or the Subsidiary Guarantors in non-guarantor subsidiaries. Intercompany transactions and amounts between Combined Entities have been eliminated.

Statement of Operations Information	*(in millions)*	
	Nine Months Ended September 30, 2020	**Year Ended December 31, 2019**
Net sales	$ 2,538.9	$ 3,043.3
Gross profit	157.6	192.0
Loss from operations	(486.3)	(793.3)
Net loss	(528.8)	(718.0)

Balance Sheet Information	*(in millions)*	
	September 30, 2020	**December 31, 2019**
Current assets	$ 1,177.9	$ 699.5
Noncurrent assets	2,780.1	3,120.4
Current liabilities	1,099.4	551.9
Noncurrent liabilities	4,253.5	4,281.3
Redeemable preferred stock	—	—
Noncontrolling interest	—	—

At September 30, 2020 and December 31, 2019, amounts owed by the Combined Entities to non-guarantor entities totaled approximately $640 million and $125 million, respectively, and amounts owed to the Combined Entities from non-guarantor entities totaled approximately $710 million and $630 million, respectively.

CRITICAL ACCOUNTING ESTIMATES

Subsequent to the goodwill impairment charge that was recorded for our Driveline reporting unit in the first quarter of 2020, the fair value of this reporting unit approximated its carrying value. Fair value of the reporting unit is estimated based on a combination of discounted cash flows and the use of pricing multiples derived from an analysis of comparable public companies multiplied against historical and/or anticipated financial metrics of the reporting unit. These calculations contain uncertainties as they require management to make assumptions including, but not limited to, market comparables, future cash flows of the reporting unit, and appropriate discount and long-term growth rates.

A decline in the actual cash flows of the Driveline reporting unit in future periods, as compared to the projected cash flows used in the valuation, could result in the carrying value of this reporting unit exceeding its fair value. Further, a change in market comparables, discount rate or long-term growth rate, as a result of a change in economic conditions or otherwise, including those resulting from the impact of COVID-19, could result in the carrying value of this reporting unit exceeding its fair value, which would result in an additional impairment charge.

AAM's critical accounting estimates are included in our Annual Report on Form 10-K for the year ended December 31, 2019 and did not materially change during the nine months ended September 30, 2020.

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. Typically, our business is also moderately seasonal as our major OEM customers historically have an extended shutdown of operations (normally 1-2 weeks) in conjunction with their model year changeover and an approximate one-week shutdown in December. Our major OEM customers also occasionally have longer shutdowns of operations (up to six weeks) for program changeovers. Accordingly, our quarterly results may reflect these trends.

LITIGATION AND ENVIRONMENTAL MATTERS

We are involved in, or potentially subject to, various legal proceedings or claims incidental to our business. These include, but are not limited to, matters arising out of product warranties, tax or contractual matters, and environmental obligations. Although the outcome of these matters cannot be predicted with certainty, at this time 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 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 anticipate continuing to make, capital and other expenditures (including recurring administrative costs) to comply with environmental requirements at our current and former facilities. Such expenditures were not significant in the third quarter of 2020.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

MARKET RISK

Our business and financial results are affected by fluctuations in global 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 relating to certain foreign currencies. At September 30, 2020, we had currency forward contracts with a notional amount of $155.8 million outstanding. 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 September 30, 2020 and was approximately $16.5 million at December 31, 2019.

In 2019, we entered into a fixed-to-fixed cross-currency swap to reduce the variability of functional currency equivalent cash flows associated with changes in exchange rates on certain Euro-based intercompany loans. In the first quarter of 2020, we discontinued this cross-currency swap, which was in an asset position of $9.8 million on the date that it was discontinued. Also in the first quarter of 2020, we entered into a new fixed-to-fixed cross-currency swap to reduce the variability of functional currency equivalent cash flows associated with changes in exchange rates on certain Euro-based intercompany loans. At September 30, 2020, the notional amount of the fixed-to-fixed cross-currency swap was $234.4 million. The potential decrease in fair value of the fixed-to-fixed cross-currency swap, assuming a 10% adverse change in the foreign currency exchange rates, would be approximately $23.4 million at September 30, 2020 and was approximately $22.4 million at December 31, 2019.

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 natural 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. In 2019, we entered into a variable-to-fixed interest rate swap to reduce the variability of cash flows associated with interest payments on our variable rate debt. We have the following notional amounts hedged in relation to our variable-to-fixed interest rate swap: $900.0 million through May 2021, $750.0 million through May 2022, $600.0 million through May 2023 and $500.0 million through May 2024.

The pre-tax earnings and cash flow impact of a one-percentage-point increase in interest rates (approximately 18% of our weighted-average interest rate at September 30, 2020) on our long-term debt outstanding, would be approximately $7.3 million at September 30, 2020 and was approximately $6.3 million at December 31, 2019, on an annualized basis.

Item 4. 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 September 30, 2020.

Changes in Internal Control over Financial Reporting

On January 1, 2019, we began the implementation of our global enterprise resource planning (ERP) systems at certain of the locations that were acquired as part of the MPG acquisition. As part of these implementations, we have modified the design and documentation of our internal controls processes and procedures, where appropriate. We will continue to implement these ERP systems at certain locations into 2021.

As a result of temporarily closing certain of our global facilities due to the impact of COVID-19, a significant number of our associates have continued to work remotely during the third quarter of 2020. This has not had a material effect on our internal control over financial reporting as we have maintained our existing controls and procedures over financial reporting during this period.

Except as described above with regard to implementation of ERP systems at certain legacy MPG locations, there were no changes in our internal control over financial reporting during the quarter ended September 30, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1A. Risk Factors

In addition to the risk factors that are included in Item 1A "Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2019 and in Item 1A "Risk Factors" in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2020 and June 30, 2020, the following was identified as a significant risk to AAM during the nine months ended September 30, 2020.

Our business and financial condition have been, and may continue to be, adversely affected by the impact of COVID-19.

Our business is subject to risks associated with public health issues, including pandemics such as COVID-19. During the nine months ended September 30, 2020, COVID-19 has disrupted global economic markets and has led to significant reductions in global automotive production volumes. As a result of COVID-19, governmental and public health officials in substantially all of the locations in which we operate had mandated certain precautions to mitigate the spread of the disease, including shelter-in-place orders or similar measures. As such, we temporarily suspended production, or experienced a significant reduction in production volumes, in substantially all of our manufacturing facilities during this period.

Our results of operations and financial condition have been, and may continue to be, adversely impacted by the actions taken to contain the impact of COVID-19, and the ultimate extent of such impact will depend on future developments, such as the duration and extent of the pandemic, the imposition or reimposition of shelter-in-place or similar measures and its impact on: consumers and sales of the vehicles we support, our customers and our and their suppliers, how quickly economic conditions and our and our customers' operations can return to more normalized levels, and sustain such levels, and whether the pandemic leads to recessionary conditions and the duration of any such recession. In addition, government sponsored economic stimulus programs in response to the pandemic may not be available to our customers, our suppliers or us, or be expanded, renewed or otherwise sufficient to achieve their economic goals. Our supply chain also may be disrupted due to supplier closures or bankruptcies. Our operations may also be impacted by interruptions due to the direct impact of, or precautionary measures associated with, COVID-19 at our locations or those of our customers or suppliers.

Further, COVID-19 could exacerbate other risks disclosed in Item 1A. "Risk Factors" as included in our Annual Report on Form 10-K for the year ended December 31, 2019. These risks include, but are not limited to, dependency on certain customers, dependency on certain global automotive market segments, risks and uncertainties associated with our company's global operations, dependency on certain key manufacturing facilities, cyclicality in the automotive industry, disruptions in our supply chain and our customers' supply chain, and compliance with our debt covenants.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

The following table provides information about our equity security purchases during the quarter ended September 30, 2020:

ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares (or Units) Purchased	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
				(in millions)
July 1 - July 31, 2020	—	$ —	—	$ —
August 1 - August 31, 2020	—	—	—	—
September 1 - September 30, 2020	—	—	—	—
Total	—	$ —	—	$ —

Item 6. Exhibits

Number	Description of Exhibit
*10.1	American Axle & Manufacturing Holdings, Inc. Executive Officer Severance Plan
*10.2	American Axle & Manufacturing Holdings, Inc. Executive Retirement Savings Plan
*22	Subsidiary Guarantors and Issuers of Guaranteed Securities
*31.1	Certification of David C. Dauch, Chairman of the Board & Chief Executive Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act
*31.2	Certification of Christopher J. May, Vice President & Chief Financial Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act
*32	Certifications of David C. Dauch, Chairman of the Board & Chief Executive Officer and Christopher J. May, Vice President & Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
**101.SCH	XBRL Taxonomy Extension Schema Document
**101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
**101.LAB	XBRL Taxonomy Extension Label Linkbase Document
**101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
**101.DEF	XBRL Taxonomy Extension Definition Linkbase Document

* Filed herewith

** Submitted electronically with this Report.

SIGNATURES

Pursuant to the requirements 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/ James G. Zaliwski
James G. Zaliwski
Chief Accounting Officer
October 30, 2020

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.

Executive Officer Severance Plan

1. Purpose. The purpose of the American Axle & Manufacturing Holdings, Inc. Executive Officer Severance Plan (the "*Plan*") is to advance the interests of American Axle & Manufacturing Holdings, Inc. (the "*Company*," and together with its subsidiaries, the "*Company Group*") and its shareholders by providing financial protection to selected executive officers and certain other employees as determined by the Administrator in its sole discretion from time to time upon termination of a participant's employment in specific circumstances and to attract and retain talent.

2. Definitions. For purposes of the Plan, the following words and phrases have the meanings specified below:

2.1 "*Accountants*" has the meaning set forth in Section 9.2.

2.2 "*Administrator*" has the meaning set forth in Section 3.

2.3 "*Base Salary*" with respect to a Participant means the rate of annual base salary paid to the Participant by the Company Group immediately preceding the Participant's Date of Separation. However, any base salary reductions in effect at the Participant's Date of Separation that are part of a broad-based program will be excluded for purposes of determining Base Salary.

2.4 "*Benefit Continuation*" has the meaning set forth in Section 6.2(d).

2.5 "*Board*" means the Board of Directors of the Company.

2.6 "*Bonus*" with respect to a Participant means the target annual bonus amount for the year in which the Participant's Date of Separation occurs. However, any reductions in target annual bonus in effect at the Participant's Date of Separation that are part of a broad-based program will be excluded for purposes of determining Bonus.

2.7 "*Cause*" means with respect to a Participant, unless otherwise defined in the employment agreement of the Participant, any of the following: (a) the Participant's willful and continued failure or refusal to perform the duties reasonably required of him or her to the Company Group; (b) the Participant's conviction of, or plea of nolo contendere to any felony or another crime involving dishonesty or moral turpitude or which reflects negatively upon the Company Group or otherwise impairs or impedes its operations; (c) the Participant's engagement in any willful misconduct, gross negligence, act of dishonesty, violence or threat of violence (including any violation of federal securities laws) that is injurious to the Company Group; (d) the Participant's material breach of any applicable agreement with or policy of the Company Group; (e) the Participant's material failure to comply with any applicable laws and regulations or professional standards relating to the business of the Company Group; or (f) any other misconduct by the Participant that is injurious to the financial condition or business reputation of the Company Group.

2.8 "*Code*" means the Internal Revenue Code of 1986, as it may be amended from time to time and as interpreted by regulations and rulings issued pursuant to the Code. Any references to a specific provision shall be deemed to include references to any successor Code provision.

2.9 "*Committee*" means the Compensation Committee of the Board.

2.10 "*Covered Payments*" has the meaning set forth in Section 9.1.

2.11 "*Date of Separation*" means, with respect to a Participant, the date on which a Participant incurs a termination of employment that is a "separation from service" within the meaning of Section 409A of the Code.

2.12 "*Effective Date*" has the meaning set forth in Section 17.

2.13 "*Exchange Act*" means the Securities Exchange Act of 1934, as amended from time to time, or any successor act thereto.

2.14 "*Excise Tax*" has the meaning set forth in Section 9.1.

2.15 "*Good Reason*" means any one or more of the following actions or omissions:

(a) any material reduction in a Participant's annual base salary or bonus opportunity as in effect immediately prior to the reduction other than as part of a broad-based program applicable to other Participants; or

(b) the relocation (other than by mutual agreement) of the office at which the Participant is to perform the majority of his or her duties to a location more than 50 miles from the location at which the Participant performed such duties prior to the relocation;

provided, *however*, that the Participant must provide the Company with (a) 45 days advance notice of termination in writing and (b) notice of the conduct that is the basis for the potential Good Reason termination in writing within 90 days of its initial existence, and such notice shall describe the conduct the Participant believes to constitute Good Reason. The Company shall have 30 days to cure such conduct upon receipt of the notice of termination from the Participant. If the Company cures the conduct that is the basis for the potential termination for Good Reason within such 30-day period, the Participant's notice of termination shall be deemed withdrawn. If the Participant does not give notice to the Company as described in this Section 2.15 within 90 days after an event giving rise to Good Reason, the Participant's right to claim Good Reason termination on the basis of such event shall be deemed waived.

2.16 "*Participant*" has the meaning set forth in Section 4.

2.17 "*Plan*" means this Executive Officer Severance Plan, as described in this document and as amended from time to time.

2.18 "*Release*" has the meaning set forth in Section 7.

2.19 "*Severance Multiple*" means the number applicable to a Participant's position as set forth on Exhibit A, as amended from time to time.

2.20 "*Severance Period*" has the meaning set forth in Section 6.2.

3. Administration. The Plan shall be administered by the Committee (the "Administrator"). Subject to the provisions of the Plan, the Administrator shall have exclusive authority to interpret and administer the Plan, to establish, amend and rescind appropriate rules and regulations relating to the Plan, to delegate some or all of its authority under the Plan to the extent permitted by law, and to take all such steps and make all such determinations in connection with the Plan and the benefits granted pursuant to the Plan as it may deem necessary or advisable. Any decision of the Administrator in the interpretation and administration of the Plan, as described herein, shall lie within its sole and absolute discretion and shall be final, conclusive and binding on all parties concerned. Except to the extent it would violate applicable law or rules, the Administrator may delegate all or a portion of its authority for administering the Plan to an officer or officers of the Company. To the extent so delegated, the term "Administrator" hereunder shall be deemed to refer to such officer or officers. The Administrator shall take such actions it deems necessary or desirable to ensure that such officer or officers have sufficient and appropriate authority for carrying out the intent and purpose of the Plan.

4. Eligibility. The participants under the Plan shall be limited to (i) executive officers of the Company, other than those executive officers who have an employment agreement or other separate arrangement providing for severance benefits upon a termination of employment (the *"Executive Officer Participants"*) and (ii) certain other employees of the Company Group as determined by the Administrator in its sole discretion from time to time (the *"Associate Participants"* and, together with the Executive Officer Participants, the *"Participants"*). Individuals who qualify under the definition of Executive Officer Participant under this Section 4 shall automatically, without any independent action by the Administrator, become eligible to and shall participate in the Plan as Participants as of such date. In the event that an individual no longer meets the definition of Executive Officer Participant, he or she shall automatically, without any independent action by the Administrator, no longer be eligible to participate in the Plan and such individual's participation shall automatically, without any independent action by the Administrator, be terminated as of such date, subject to Section 15 of the Plan; *provided*, that for the avoidance of doubt, the Administrator may in its sole discretion elect to designate such individual as an Associate Participant. The Administrator from time to time in its sole discretion shall select and notify any employees of the Company who will participate as Participants in the Plan. Individuals who are designated by the Administrator as Associate Participants in accordance with this Section 4 and who undergo a change in title or job grade other than for reason of a promotion shall automatically, without any independent action by the Administrator, no longer be eligible to participate in the Plan and such individual's participation shall automatically, without any independent action by the Administrator, be terminated as of such date, subject to Section 15 of the Plan; *provided*, that for the avoidance of doubt, the Administrator may in its sole discretion elect to treat any such individual differently in accordance with the terms of the Plan.

5. No Effect on Equity Awards. The Plan does not alter or amend any vesting or other terms and conditions of any equity-based compensation awards under the Company's equity incentive compensation plans (including, but not limited to, the Company's 2012 Omnibus Incentive Plan

or 2018 Omnibus Incentive Plan), which shall be governed by the terms and conditions set forth in the equity incentive compensation plans and separate written grant agreements.

6. Severance Benefits.

6.1 No severance benefits shall be payable under the Plan unless the Participant's employment with the Company is involuntarily terminated by the Company without Cause or by the Participant's resignation with Good Reason (a "*Qualifying Event*"). For the avoidance of doubt, if in connection with a transaction or series or combination of transactions (i) a Participant's employment transfers to an acquiror or its affiliate or (ii) a Participant is offered a comparable position with an acquiror or its affiliate with a level of compensation no less than and benefits comparable to that enjoyed by the Participant immediately prior to the closing of the applicable transaction, then a termination from the Company Group shall not constitute a Qualifying Event for purposes of the Plan. In the event of a Change in Control (as defined in the Company Change in Control Plan), the Company Change in Control Plan or, if applicable, the terms provided under the Participant's employment agreement, shall apply.

6.2 Upon a Qualifying Event, subject to the provisions of the Plan (including compliance with the Restrictive Covenants) and timely execution and nonrevocation of a Release, the Participant shall receive the following benefits:

(a) Severance. A cash amount equal to the Participant's Base Salary plus Bonus multiplied by the applicable Severance Multiple, payable in a lump sum on the 60th day following the Date of Separation;

(b) Annual Bonus. Any unpaid annual bonus for any completed performance year immediately preceding the year in which the Qualifying Event occurs as determined based on actual performance, payable to the Participant on the date such bonus would have been paid had the Participant remained employed with the Company, but in no event later than March 15th of the year in which the Qualifying Event occurs, notwithstanding anything to the contrary in an applicable plan or award document;

(c) Pro rata Annual Bonus. A cash amount equal to the annual bonus for the performance year in which the Qualifying Event occurs, determined based on actual performance and then prorated based on the number of days in such performance year elapsed through the date of the Qualifying Event, payable to the Participant on the date such bonus would have been paid had the Participant remained employed with the Company, but in no event later than March 15th of the year following the year in which the Qualifying Event occurs, notwithstanding anything to the contrary in an applicable plan or award document;

(d) Medical Coverage. Upon a Qualifying Event, the Participant (and his or her eligible dependents) shall be entitled to continued participation in the Company's medical plans, as in effect from time to time, at then-existing participation and coverage levels for active similarly situated employees (the "*Benefit Continuation*") for the number of months equal to 12 multiplied by the applicable

Severance Multiple (the "*Severance Period")*. In the event that such Benefit Continuation is not permitted or advisable or the Company, in its sole discretion, elects, in lieu of Benefit Continuation, the Company shall pay to the Participant a cash amount (in the Company's determination) equal to the then-current difference between the Participant's monthly medical insurance cost immediately prior to the applicable Qualifying Event and the monthly cost for COBRA multiplied by the number of months remaining in the Severance Period, payable in three separate semi-annual installments. Any obligation to provide Benefit Continuation or payment in lieu of such Benefit Continuation shall cease upon the earlier of (i) the Participant becoming eligible to receive group health benefits under a program of a subsequent employer or (ii) the Participant not complying with the provisions of this Plan. For the avoidance of doubt, the Participant (and his or her eligible dependents) shall be responsible for paying all employee contributions, deductibles and other cost-sharing items under such plans. Nothing in this Section 6.2 shall be construed to impair or reduce a Participant's rights under COBRA or other applicable law.

(e) Outplacement. The Participant shall be entitled to reimbursement for outplacement service costs incurred (which shall include appropriate itemization and substantiation of expenses incurred) during the period from the Participant's Date of Separation through the end of the applicable Severance Period, subject to a maximum amount of $20,000; *provided*, that such claims for reimbursement are submitted to the Company within 90 days following the date of invoice.

All payments under this Section 6.2 are subject to the Participant executing the Release and the Release becoming effective and irrevocable in its entirety. If the Release does not become effective and irrevocable prior to the 60th day following the Date of Separation, the Company shall have no obligation to make any payments or provide benefits pursuant to the Plan.

6.3 General. Nothing in this Section 6 shall be construed to impair or reduce a Participant's right to any other accrued but unpaid compensation or benefits nor create a right or entitlement to any additional senior executive retirement benefit.

7. Release and Restrictive Covenant.

7.1 Release. A Participant shall only be entitled to receive the payments and benefits pursuant to Section 6 if he or she shall have executed and delivered (and not revoked) a release of claims against the Company (and its officers, directors, employees, affiliates, stockholders, etc.) substantially in the form attached hereto as Exhibit B (the *"Release"*), and such Release is in full force and effect by the 60th day following the Date of Separation. Should the Participant revoke all or any portion of the Release within any allowed revocation period, then the Participant will be treated hereunder as if he or she did not execute the Release.

7.2 Restrictive Covenant. During the Severance Period, the Participant shall not, without the prior written consent of the Company, directly or indirectly, and whether as principal or investor or as an employee, officer, director, manager, partner, consultant, agent or otherwise, alone or in association with any other person, firm, corporation or other business organization, carry on a business competitive with the Company in any geographic area in which the Company Group has engaged in business, or is reasonably expected to engage in business during such Severance Period (including, without limitation, any area in which any customer of the Company Group may be located); *provided*, *however*, that nothing herein shall limit the Participant's right to own not more than 1% of any of the debt or equity securities of any business organization that is then filing reports with the Securities and Exchange Commission pursuant to Section 13 or 15(d) of the Exchange Act (the *"Restrictive Covenant"*). For the avoidance of doubt, (i) amounts payable pursuant to Section 6.2 are consideration for the Participant's compliance with this Restrictive Covenant and (ii) the Restrictive Covenant shall be effective for the full Severance Period irrespective of whether any payments under Section 6.2 are terminated prior to the end of the Severance Period.

7.3 Breach. If a Participant breaches any provision of the Release or the Restrictive Covenant, the Administrator may determine that the Participant (i) will forfeit any unpaid portion of the payments provided pursuant to the Plan and (ii) will repay to the Company any amounts previously paid to him or her pursuant to the Plan.

8. No Funding. Nothing herein contained shall require or be deemed to require the Company to segregate, earmark or otherwise set aside any funds or other assets to provide for any payments made hereunder. The rights of any Participant under the Plan shall be solely those of a general creditor of the Company. However, in the event the Company foresees payment under the Plan, the Company may deposit cash or property, or both, equal in value to all or a portion of the benefits anticipated to be payable hereunder for any or all Participants into a trust, the assets of which are to be distributed at such times as are otherwise provided for in the Plan and are subject to the rights of the general creditors of the Company.

9. Section 280G.

9.1 Notwithstanding any other provision of the Plan or any other plan, arrangement or agreement to the contrary, if any of the payments or benefits provided or to be provided by the Company or its affiliates to a Participant or for the Participant's benefit pursuant to the terms of the Plan or otherwise (*"Covered Payments"*) constitute parachute payments within the meaning of Section 280G of the Code and would, but for this Section 9, be subject to the excise tax imposed under Section 4999 of the Code (or any successor provision thereto) or any similar tax imposed by state or local law or any interest or penalties with respect to such taxes (collectively, the *"Excise Tax"*), then the Covered Payments shall be payable either (i) in full or (ii) reduced to the minimum extent necessary to ensure that no portion of the Covered Payments is subject to the Excise Tax, whichever of the foregoing (i) or (ii) results in the Participant's receipt on an after-tax basis of the greatest amount of payments and benefits after taking into account the applicable federal, state, local and foreign income, employment and excise taxes (including the Excise Tax). Any such reduction shall be made by the Company in its sole discretion consistent with the requirements of Section 409A of the Code.

9.2 Any determination required under this Section 9 shall be made in writing in good faith by the accounting firm that was the Company's independent auditor immediately before the Qualifying Event (the *"Accountants"*). The Company and the Participant shall provide the Accountants with such information and documents as the Accountants may reasonably request in order to make a determination under this Section 9. The Company shall be responsible for all fees and expenses of the Accountants.

10. Section 409A. Notwithstanding anything to the contrary contained in the Plan, the payments and benefits provided under the Plan are intended to comply with or be exempt from Section 409A of the Code, and the provisions of the Plan shall be interpreted or construed consistently with that intent. The Administrator may modify the payments and benefits under the Plan at any time solely as necessary to avoid adverse tax consequences under Section 409A; *provided*, *however*, that this Section 10 shall not create any obligation on the part of the Administrator to make such modifications or take any other action.

10.1 It is intended that the terms "termination" and "termination of employment" as used herein shall constitute a "separation from service" within the meaning of Section 409A.

10.2 Anything in the Plan to the contrary notwithstanding, each payment of compensation made to a Participant shall be treated as a separate and distinct payment from all other such payments for purposes of Section 409A.

10.3 In no event may a Participant be permitted to control the year in which any payment occurs.

10.4 Anything in the Plan to the contrary notwithstanding, if a Participant is a "specified employee" (within the meaning of Treasury Regulation Section 1.409A-1(i)) on the date of the Participant's termination of employment, then any payment or benefit which would be considered "nonqualified deferred compensation" within the meaning of Section 409A that the Participant is entitled to receive upon the Participant's termination of employment and which otherwise would be payable during the six-month period immediately following the Participant's termination of employment will instead be paid or made available on the first day of the seventh month following the Participant's termination of employment (or, if earlier, the date of the Participant's death).

10.5 With regard to any provision herein that provides for reimbursement of costs and expenses or in-kind benefits, except as permitted by Section 409A: (i) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit; (ii) the amount of expenses eligible for reimbursement, or in-kind benefits, provided during any taxable year shall not affect the expenses eligible for reimbursement, or in-kind benefits to be provided, in any other taxable year; and (iii) such payments shall be made on or before the last day of the Participant's taxable year following the taxable year in which the expense occurred, or such earlier date as required hereunder.

11. Clawback. Any amounts payable under the Plan are subject to any policy providing for clawback, recoupment or recovery of amounts that were paid to the Participant as established from time to time by the Committee. The Company shall make any determination for clawback, recoupment or recovery in its sole discretion and in accordance with any such policy and applicable law or regulation.

12. Withholding. The Company shall be entitled to withhold from payments to or on behalf of the Participant taxes and other authorized deductions.

13. Governing Law. The Plan shall be construed, interpreted and governed in accordance with the laws of the State of Michigan, without giving effect to the principles of conflicts of law.

14. Effect on Other Plans. The Plan supersedes in all respects any other severance benefit plans, arrangements or policies of the Company that apply to Participants upon a Qualifying Event, but does not supersede (i) employment agreements between an employee and the Company Group and (ii) to the extent applicable, the Company Executive Officer Change in Control Plan. No Participant shall be eligible to receive severance benefits under more than one severance arrangement of the Company (whether through an employment agreement or a benefit plan) at any time. Notwithstanding the foregoing, the Company and the Board reserve the right to adhere to other policies and practices that may be in effect for other groups of employees.

15. Amendment, Modification and Termination. The Plan (including Exhibit A) may be modified, amended or terminated at any time by the Administrator without notice to Participants.

16. No Employment Rights. Neither the Plan nor the benefits hereunder shall be a term of the employment of any employee, and the Company Group shall not be obligated in any way to continue the Plan. The terms of the Plan shall not give any employee the right to be retained in the employment of the Company Group.

17. Effective Date and Term. The Plan shall become effective as of April 10, 2018 (the *"Effective Date"*).

Exhibit A

Severance Multiples

Participants	**Applicable Severance Multiple**
Business Unit Presidents VP/CFO VP-HR VP- Controller	1.5
Other Executive Officer Participants	1

For any Executive Officer Participant whose role is not identified above or employee designated as an Associate Participant by the Administrator, the Administrator shall determine the applicable Severance Multiple at the time such employee becomes eligible to participate in this Plan.

For the avoidance of doubt, notwithstanding an employee's title being listed on the chart, such employee is not eligible to participate in this Plan if he or she is subject to an employment agreement providing for severance benefits.

Exhibit B

Form of Release

FORM OF WAIVER AND MUTUAL RELEASE

This Waiver and Mutual Release, dated as of _________ (this "Release"), by and between [NAME] (the "Participant") and American Axle & Manufacturing Holdings, Inc., a Delaware corporation (the "Company").

WHEREAS, the Participant participates in the Company's Executive Officer Severance Plan (the "Plan"); and

WHEREAS, pursuant to Section 7 of the Plan, the Participant has agreed to execute and deliver a release and waiver of claims of the type and nature set forth herein as a condition to his or her entitlement to certain payments and benefits upon a Qualifying Event (as defined in the Plan), effective as of _________ (the "Termination Date").

NOW, THEREFORE, in consideration of the premises and mutual promises herein contained and for other good and valuable consideration received or to be received in accordance with the terms of the Plan, the Participant and the Company agree as follows:

1. Return of Property. On or prior to the Termination Date, the Participant represents and warrants that he or she will return all property made available to him in connection with his or her service to the Company, including, without limitation, credit cards, any and all records, manuals, reports, papers and documents kept or made by the Participant in connection with his or her employment as an officer or employee of the Company and its subsidiaries and affiliates, all computer hardware or software, cellular phones, files, memoranda, correspondence, vendor and customer lists, financial data, keys and security access cards.

2. Participant Release.

(a) In consideration of the payments and benefits provided to the Participant under the Plan and after consultation with counsel, the Participant and each of the Participant's respective heirs, executors, administrators, representatives, agents, successors and assigns (collectively, the "Participant Parties") hereby irrevocably and unconditionally release and forever discharge the Company and its subsidiaries and affiliates and each of their respective officers, employees, directors, shareholders and agents ("Company Parties") from any and all claims, actions, causes of action, rights, judgments, obligations, damages, demands, accountings or liabilities of whatever kind or character (collectively, "Claims"), including, without limitation, any Claims under any federal, state, local or foreign law, that the Participant Parties may have, or in the future may possess, arising out of (i) the Participant's employment relationship with and service as an employee, officer or director of the Company, and the termination of such relationship or service, and (ii) any event, condition, circumstance or obligation that occurred, existed or arose on or prior to the date hereof; provided, however, that the Participant does not release, discharge or waive (w) any rights to payments and benefits provided under the Plan that are contingent upon the execution by the Participant of this Release, (x) any right the Participant may have to enforce this Release or the Plan, (y) the Participant's eligibility for indemnification in accordance with the Company's certificate of incorporation, bylaws or other corporate governance document, or any applicable insurance policy, with respect to any liability he or she incurred or might incur as an employee, officer or director of the Company, or (z) any claims for accrued, vested benefits under any long-term incentive, employee benefit or retirement plan of the Company subject to the terms and conditions of such plan and applicable law including, without limitation, any such claims under the Employee Retirement Income Security Act of 1974, as amended. This Section 2(a) does not apply to any Claims that the Participant Parties may have as of the date the Participant signs this Release arising under the Federal Age Discrimination in Employment Act of 1967, as amended, and the applicable rules and regulations promulgated thereunder ("ADEA"). Claims arising under ADEA are addressed in Section 2(b) of this Release.

(b) Participant's Specific Release of ADEA Claims. In further consideration of the payments and benefits provided to the Participant under the Plan, the Participant Parties hereby unconditionally release and forever discharge the Company Parties from any and all Claims that the Participant Parties may have as of the date the Participant signs this Release arising under ADEA. By signing this Release, the Participant hereby acknowledges and confirms the following: (i) the Participant was advised by the Company in connection with his or her termination to consult with an attorney of his or her choice prior to signing this Release and to have such attorney explain to the Participant the terms of this Release, including, without limitation, the terms relating to the Participant's release of claims arising under ADEA, and the Participant has in fact consulted with an attorney; (ii) the Participant was given a period of not fewer than [21 days][45 days, to the extent required by ADEA,] to consider the terms of this Release and to consult with an attorney of his or her choosing with respect thereto; and (iii) the Participant knowingly and voluntarily accepts the terms of this Release. The Participant also understands that he or she has seven days following the date on which he or she signs this Release (the "Revocation Period") within which to revoke the release contained in this paragraph, by providing the Company a written notice of his or her revocation of the release and waiver contained in this paragraph. No such revocation by the Participant shall be effective unless it is in writing and signed by the Participant and received by the Company prior to the expiration of the Revocation Period.

3. Company Release. The Company, for itself and on behalf of the Company Parties, hereby irrevocably and unconditionally releases and forever discharges the Participant Parties from any and all Claims, including, without limitation, any Claims under any federal, state, local or foreign law, that the Company Parties may have, or in the future may possess, arising out of (a) the Participant's employment relationship with and service as an employee, officer or director of the Company, and the termination of such relationship or service, and (b) any event, condition, circumstance or obligation that occurred, existed or arose on or prior to the date hereof, excepting any Claim which would constitute or result from conduct by the Participant that would constitute a crime under applicable state or federal law; *provided*, *however*, notwithstanding the generality of the foregoing, nothing herein shall be deemed to release the Participant Parties from (x) any rights or claims of the Company arising out of or attributable to (A) the Participant's actions or omissions involving or arising from fraud, deceit, theft or intentional or grossly negligent violations of law, rule or statute while employed by the Company and (B) the Participant's actions or omissions taken or not taken in bad faith with respect to the Company; and (y) the Participant or any other Participant Party's obligations under this Release or the Plan.

4. No Assignment. The parties represent and warrant that they have not assigned any of the Claims being released under this Release.

5. Proceedings.

(a) General Agreement Relating to Proceedings. The parties represent and warrant that they have not filed, and they agree not to initiate or cause to be initiated on their behalf, any complaint, charge, or claim against the other party before any local, state or federal agency, court or other body relating to the Participant's employment or the termination thereof, other than with respect to any claim that is not released hereunder including with respect to the obligations of the Company to the Participant and the Participant to the Company under the Plan (each, individually, a "Proceeding"), and each party agrees not to participate voluntarily in any Proceeding. The parties waive any right they may have to benefit in any manner from any relief (whether monetary or otherwise) arising out of any Proceeding.

(b) Proceedings Under ADEA. Section 5(a) shall not preclude the Participant from filing any complaint, charge or claim challenging the validity of the Participant's waiver of Claims arising under ADEA (which is set forth in Section 2(b) of this Release). However, both the Participant and the Company confirm their belief that the Participant's waiver of claims under ADEA is valid and enforceable, and that their intention is that all claims under ADEA will be waived.

(c) Certain Administrative Proceedings. In addition, Section 5(a) shall not preclude the Participant from filing a charge with or participating in any administrative investigation or proceeding by the Equal Employment Opportunity Commission or another Fair Employment Practices agency. The Participant is, however, waiving his or her right to recover money in connection with any such charge or investigation. The Participant is also waiving his or her right to recover money in connection with any charge filed by any other entity or individual, or by any federal, state or local agency.

6. Remedies.

(a) Each of the parties understands that by entering into this Release such party will be limiting the availability of certain remedies that such party may have against the other party and such party's ability to pursue certain claims against the other party.

(b) Each of the parties acknowledges and agrees that the remedies at law available to such party for breach of any of the obligations under this Release would be inadequate and that damages flowing from such a breach may not readily be susceptible to being measured in monetary terms. Accordingly, each of the parties acknowledges, consents and agrees that, in addition to any other rights or remedies that such party may have at law or in equity, such party shall be entitled to seek a temporary restraining order or a preliminary or permanent injunction, or both, without bond or security, restraining the other party from breaching its obligations under this Release. Such injunctive relief in any court shall be available to the relevant party, in lieu of, or prior to or pending determination in, any arbitration proceeding.

7. Cooperation. From and after the Termination Date, the Participant shall cooperate in all reasonable respects with the Company, its affiliates and subsidiaries and their respective directors, officers, attorneys and experts in connection with the conduct of any action, proceeding, investigation or litigation involving the Company or any of its affiliates or subsidiaries, including any such action, proceeding, investigation or litigation in which the Participant is called to testify.

8. Unfavorable Comments.

(a) Public Comments by the Participant. The Participant agrees to refrain from making, directly or indirectly, now or at any time in the future, whether in writing, orally or electronically: (i) any derogatory comment concerning the Company, its affiliates or subsidiaries or any of their current or former directors, officers, employees or shareholders, or (ii) any other comment that could reasonably be expected to be detrimental to the business or financial prospects or reputation of the Company or any of its affiliates or subsidiaries.

(b) Public Comments by the Company. The Company agrees to instruct its directors and employees to refrain from making, directly or indirectly, now or at any time in the future, whether in writing, orally or electronically: (i) any derogatory comment concerning the Participant, or (ii) any other comment that could reasonably be expected to be detrimental to the Participant's business or financial prospects or reputation.

9. Severability Clause. In the event any provision or part of this Release is found to be invalid or unenforceable, only that particular provision or part so found, and not the entire Release, will be inoperative.

10. Non-admission. Nothing contained in this Release will be deemed or construed as an admission of wrongdoing or liability on the part of the Company or the Participant.

11. Governing Law. All matters affecting this Release, including the validity thereof, are to be governed by, and interpreted and construed in accordance with, the laws of the State of Michigan applicable to contracts executed in and to be performed in that State.

THE PARTICIPANT ACKNOWLEDGES THAT HE OR SHE HAS READ THIS RELEASE, THAT HE OR SHE HAS REVIEWED IT WITH AND OBTAINED THE ADVICE OF COUNSEL AND THAT HE OR SHE FULLY KNOWS, UNDERSTANDS AND APPRECIATES ITS CONTENTS, AND THAT HE OR SHE HEREBY EXECUTES THE SAME AND MAKES THIS RELEASE AND THE RELEASES PROVIDED FOR HEREIN VOLUNTARILY AND OF HIS OR HER OWN FREE WILL.

IN WITNESS WHEREOF, the parties have executed this Release as of the date first set forth above.

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.

By:

PARTICIPANT

By:

AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.

EXECUTIVE RETIREMENT SAVINGS PLAN

Effective as of January 1, 2019

ARTICLE I - <u>PURPOSE; EFFECTIVE DATE</u>

1.1. **<u>Purpose</u>**. The purpose of this Executive Retirement Savings Plan (the "<u>Plan</u>") is to provide a select group of highly compensated employees of American Axle & Manufacturing Holdings, Inc. (the "<u>Company</u>," and together with its subsidiaries, the "<u>Company Group</u>") and its selected subsidiaries the opportunity to defer the receipt of income that would otherwise be payable to them. It is intended that the Plan, by providing these eligible persons with these benefits and the deferral of income tax recognition of these benefits, will assist in retaining and attracting individuals of exceptional ability.

1.2. **<u>Effective Date</u>**. It is the intent that all of the amounts contributed under the Plan and benefits provided hereunder will be subject to the terms of Section 409A of the Code, and the Plan shall be effective as of January 1, 2019.

1.3. **<u>Plan Type</u>**. For purposes of Section 409A of the Code, the Plan shall be considered a nonelective account balance plan as defined in Treas. Reg. §1.409A-1(c)(2)(i)(B), or as otherwise provided by the Code.

1. ARTICLE II - <u>DEFINITIONS</u>

For the purpose of the Plan, the following terms shall have the meanings indicated, unless the context clearly indicates otherwise:

2.1. **<u>401(k) Plan</u>**. "401(k) Plan" means the Company's 401(k) Savings Plan.

2.2. **<u>Account</u>**. "Account" means the account or accounts maintained on the books of the Company used solely to calculate the amount payable to each Participant under the Plan and shall not constitute a separate fund of assets. An Account shall be deemed to exist from the time amounts are first credited to an Account until such time that the entire Account balance has been distributed in accordance with the Plan.

2.3. **<u>Administrator</u>**. "Administrator" means the Management Benefits Committee acting through the Company's Human Resources Department in the administration of the Plan pursuant to Section 7.2.

2.4. **<u>Beneficiary</u>**. "Beneficiary" means the person, persons or entity as designated by the Participant, or who is otherwise entitled under Article VI, to receive any Plan benefits payable after the Participant's death.

2.5. **<u>Board</u>**. "Board" means the Board of Directors of the Company, or any successor thereto.

2.6. **<u>Cause</u>**. "Cause" means with respect to a Participant, unless otherwise defined in the employment agreement of the Participant, any of the following: (a) the Participant's willful and continued failure or refusal to perform the duties reasonably required of him or her to the Company Group; (b) the Participant's conviction of, or plea of *nolo contendere* to any felony or another crime involving dishonesty or moral turpitude or which reflects negatively upon the Company or its Subsidiaries or affiliates or otherwise impairs or impedes its operations; (c) the Participant's engagement in any willful misconduct, gross negligence, act of dishonesty, violence or threat of violence (including any violation of federal securities laws) that is injurious to the Company Group; (d) the Participant's material breach of any applicable agreement with or policy of the

Company Group; (e) the Participant's material failure to comply with any applicable laws and regulations or professional standards relating to the business of the Company Group; or (f) any other misconduct by the Participant that is injurious to the financial condition or business reputation of the Company Group.

2.7. **Code**. "Code" means the Internal Revenue Code of 1986, as it may be amended from time to time and as interpreted by regulations and rulings issued pursuant to the Code. Any references to a specific provision shall be deemed to include references to any successor Code provision.

2.8. **Company**. "Company" means American Axle & Manufacturing Holdings, Inc. and any successor.

2.9. **Compensation Committee**. "Compensation Committee" means the Compensation Committee of the Board.

2.10. **Determination Date**. "Determination Date" means any business day on which the New York Stock Exchange is open for trading.

2.11. **Disability**. "Disability" shall mean either of the following: (a) inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than 12 months; or (b) by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than 12 months, receiving income replacement benefits for a period of not less than three months under an accident and health plan covering employees of the Company Group.

2.12. **Distribution Election**. "Distribution Election" means the form prescribed by the Management Benefits Committee and completed by the Participant, indicating the chosen form of payment for benefits payable from the Participant's Account, as elected by the Participant.

2.13. **Eligible Person**. "Eligible Person" means (a) US-based executives of the Company Group having the title of Vice President and above and (b) any other US-based employee of the Company Group designated by the Compensation Committee consistent with Section 10.1.

2.14. **ERSP Contribution**. "ERSP Contribution" means the Company contribution credited to a Participant's Account under Section 4.4.

2.15. **Executive Officer**. "Executive Officer" means any executive whose compensation must be reviewed and approved by the Compensation Committee.

2.16. **Interest**. "Interest" means the amount credited to or debited against a Participant's Account on a Determination Date, which shall be based on the Valuation Funds chosen by the Participant pursuant to Section 4.3, in order to reflect the increase or decrease in value of the Account in accordance with the provisions of the Plan.

2.17. **Management Benefits Committee**. "Management Benefits Committee" means the committee appointed by the Compensation Committee to govern and monitor the administration of the Plan pursuant to Section 7.1.

2.18. **Management Investment Committee**. “Management Investment Committee” means the committee appointed by the Compensation Committee to govern and monitor all Plan assets and investments.

2.19. **Participant**. “Participant” means (i) any Eligible Person identified in Section 2.13(a) and (ii) any Eligible Person designated by the Compensation Committee in accordance with Section 2.13(b).

2.20. **Plan**. “Plan” means this Executive Retirement Savings Plan, as amended from time to time.

2.21. **Plan Year**. “Plan Year” shall mean a calendar year (January 1-December 31).

2.22. **Retirement**. “Retirement” means a Participant’s voluntary resignation at any time (a) after attaining age 65, (b) after attaining age 55 but prior to age 65 with ten or more years of continuous service with the Company Group, or (c) after attaining age 60 but prior to age 65 with five or more years of continuous service with the Company Group.

2.23. **Termination**. “Termination”, “terminates employment” or any other similar such phrase means the Participant’s “separation from service” with the Company Group, for any reason, within the meaning of Section 409A of the Code.

2.24. **Unforeseeable Emergency**. “Unforeseeable Emergency” means an event that results in a severe financial hardship to the Participant resulting from (a) an illness or accident of the Participant, the Participant’s spouse, the Participant’s beneficiary or a dependent of the Participant, (b) loss of the Participant’s property due to casualty or (c) other similar extraordinary and unforeseeable circumstances as a result of events beyond the control of the Participant, in each case in compliance with Section 409A of the Code.

2.25. **Valuation Funds**. “Valuation Funds” means one or more of the independently established funds or indices that are approved by the Management Investment Committee. These Valuation Funds are used solely to calculate the Interest that is credited to each Participant’s Account in accordance with Article IV, and the term “Valuation Funds” does not represent, nor should it be interpreted to convey, any beneficial interest on the part of the Participant in any asset or other property of the Company or any member of the Company Group. The determination of the increase or decrease in the performance of each Valuation Fund shall be made by the Management Investment Committee in its reasonable discretion. The Management Investment Committee shall select the various Valuation Funds available to the Participants and may add or remove any Valuation Funds on a prospective basis at any time in its sole discretion.

ARTICLE III - ELIGIBILITY AND PARTICIPATION

3.1. **Eligibility and Participation**.

a) **Eligibility**. All US-based executives of the Company Group having the title of Vice President and above shall be Eligible Persons. With respect to other employees of the Company, the Compensation Committee shall designate those employees of the Company Group who are Eligible Persons.

b) **Participation**. An individual’s participation in the Plan shall be effective upon the date such individual becomes an Eligible Person.

3.2. **Participant Elections**. No more than 30 days after a Participant is first designated as a Participant as set forth in Section 3.1(b) (or if such Participant was prior to such designation participating in another nonelective account balance plan of the Company Group, the first date on which such Participant may make such election in compliance with Section 409A of the Code), the Participant may submit the following forms to the Administrator:

a) **Distribution Election**. The Participant may submit a Distribution Election, on which the Participant shall elect a form of payment to be made with respect to the Participant's Account. The Participant may submit a new Distribution Election at any time prior to the end of the 30-day period referenced in this Section 3.2, and the Distribution Election most recently filed at the end of such 30-day period shall be irrevocable. In the event that a Participant does not timely submit a properly completed Distribution Election, the form of payment deemed to be elected will be a lump sum.

b) **Allocation Election**. The Participant may submit an allocation form, which shall provide instructions on how the ERSP Contributions credited to the Participant's Account shall be allocated among the various available Valuation Funds. In the event that a Participant does not submit a timely and properly completed allocation form, the Administrator shall allocate the ERSP Contributions to the default Valuation Fund designated by the Management Benefits Committee until a properly completed allocation form is submitted.

3.3. **Subsequent Distribution Election**. Except to the extent otherwise required or permitted under Section 409A of the Code, the Participant shall not be permitted to change or revoke the form of payment with respect to his or her Account on or after the date on which such election would otherwise be irrevocable under Section 3.2(a) unless all of the following requirements are satisfied with respect to such Participant's subsequent election to change the form of payment: (i) such election shall not take effect until 12 months after the date on which the election is made; (ii) such election shall not apply to any scheduled distribution date that occurs 12 months or less after the date on which the election is made; and (iii) except in the case of a payment due to death, as described in Section 5.2, or Disability, as described in Section 5.3, the payment with respect to which such election is made must be deferred for a period of five years from the date such payment would otherwise have been paid (or in the case of annual installment payments, five years from the date the first annual installment payment would otherwise have been scheduled to be paid). A Participant may only make one subsequent Distribution Election under this Section 3.3, with respect to his or her Account.

ARTICLE IV - DEFERRED COMPENSATION ACCOUNT

4.1. **Accounts**. The ERSP Contributions and Interest thereon shall be credited to the Participant's Account as otherwise provided in this Article IV. The Participant's Account shall be used solely to calculate the amount payable to the Participant under the Plan and shall not constitute a separate fund of assets.

4.2. **Timing of Credits; Withholding**. Any ERSP Contributions shall be credited to a Participant's Account as of a time and in a manner provided by the Administrator, but typically as soon as practicable in the first quarter of the calendar year following the Plan Year to which such ERSP Contribution relates. Any taxes with respect to the ERSP Contribution credited to a Participant's Account that are required to be withheld under local, state or federal law shall be payable by the Participant at the time the credit is made in any manner specified by the Management Benefits

Committee. Any Participant who has a Retirement shall receive any final ERSP Contribution prior to the initial benefit payment under Section 5.1(b).

4.3. **Valuation Funds**. A Participant shall be permitted to designate one or more Valuation Funds for the sole purpose of determining the amount of Interest to be credited or debited to the Participant's Account. Such election shall designate how each ERSP Contribution shall be allocated among the available Valuation Fund(s). A Participant shall also be permitted to reallocate the balance in the Participant's Account among the available Valuation Funds. The manner in which such elections shall be made and the frequency with which such elections may be changed and the manner in which such elections shall become effective shall be determined in accordance with the procedures adopted by the Management Investment Committee from time to time.

4.4. **ERSP Contributions**. A Participant's Account shall be credited with an ERSP Contribution in accordance with this Section 4.4.

a) **Contribution Amount**. The amount of the ERSP Contribution for any Participant shall be stated as (i) a flat dollar amount, (ii) a percentage of the Participant's base salary and annual incentive compensation paid while the Participant was an Eligible Person during the applicable Plan Year less the maximum eligible Company matching and non-elective contributions to the 401(k) Plan during the Plan Year (irrespective of whether the Participant maximized the Company contributions or not) or (iii) a formula as determined by the Compensation Committee in its sole discretion (together, the "ERSP Contribution Formula").

If a Participant was not an Eligible Person for the entire Plan Year due to one of the following circumstances: (x) a Participant has a Retirement during the Plan Year, which, for the avoidance of doubt, after such Retirement the Participant ceases to be an Eligible Person; (y) a Participant becomes an Eligible Person in the Plan Year; or (z) a vested Participant ceases to be an Eligible Person in the Plan Year but continues to be employed by a member of the Company Group, the Participant may receive a partial contribution for the applicable Plan Year. In such a circumstance, if the ERSP Contribution Formula is stated as a flat dollar amount, it will be prorated (calculated as the flat dollar amount determined by the Compensation Committee or Management Benefits Committee (as applicable) for the applicable Participant multiplied by a fraction, the numerator of which is the Months of the applicable Plan Year during which the applicable Participant was an Eligible Person and the denominator of which is 12).

The Compensation Committee, in its sole discretion, shall determine the maximum amount of the ERSP Contribution that may be made for a Participant, and may consider any factors it deems relevant in making such determination. The Management Benefits Committee, in its sole discretion, shall determine the actual amount of the ERSP Contribution to be allocated to a Participant's Account for each year (or portion thereof), if any, up to the maximum amount approved by the Compensation Committee, except for the Executive Officers, for whom such decision will be made by the Compensation Committee.

Once established, the ERSP Contribution Formula for any Participant shall remain the same for each succeeding year, unless changed by either the Management Benefits Committee or the Compensation Committee pursuant to their respective authority indicated herein. Any such changes must be made no later than December 31 and shall apply to the ERSP Contribution made with respect to services performed in the following Plan Year.

b) **Special Contributions**. By way of further clarity, notwithstanding the provisions of Section 4.4(a), the Compensation Committee may make, in its complete and sole discretion, a special contribution on behalf of a Participant to such Participant's Account with respect to a particular Plan Year in any amount as determined by the Compensation Committee. Such special contribution may be in addition to or in lieu of any other contribution with respect to the particular Plan Year, as determined by the Compensation Committee in its complete and sole discretion.

c) **No Guarantee of Future Contributions**. The designation of any Participant as being eligible to receive an ERSP Contribution in any year shall not be a guarantee of future contributions, and the crediting of any particular level of ERSP Contribution in any year shall not be a guarantee of that level in future years.

4.5. **Determination of Accounts**. Each Participant's Account on a Determination Date shall consist of the balance of the Account as of the immediately preceding Determination Date, adjusted as follows:

a) **ERSP Contributions**. Each Account shall be increased by any ERSP Contribution credited since such prior Determination Date as set forth in Section 4.4.

b) **Distributions**. Each Account shall be reduced by the amount of each benefit payment made from that Account since the prior Determination Date. Distributions shall be deemed to have been made proportionally from each of the Valuation Funds maintained within such Account based on the proportion that such Valuation Fund bears to the sum of all Valuation Funds maintained within the Account for that Participant as of the Determination Date immediately preceding the date of payment.

c) **Interest**. Each Account shall be increased or decreased by the Interest credited or debited to such Account as though the balance of that Account was invested in the applicable Valuation Funds chosen by the Participant.

4.6. **Vesting of Accounts**. Except as otherwise specified by the Management Benefits Committee (with respect to non-Executive Officer Participants) or the Compensation Committee (with respect to Executive Officer Participants) in writing, or as set forth in Section 4.7, each Participant shall be 100% vested in the Participant's Account, including any Interest thereon, upon the earliest of: (a) death; (b) Disability; or (c) (i) after attainment of age 65, (ii) after attainment of age 55 but prior to age 65 with ten or more years of continuous service with the Company Group, or (iii) after attainment of age 60 but prior to age 65 with five or more years of continuous service with the Company Group.

4.7. **Forfeiture of Accounts**. Any Participant who Terminates employment or ceases to be an Eligible Person other than due to a termination of employment before becoming fully vested in the Participant's Account shall immediately forfeit the unvested balance of his or her Account. Any Participant whose employment is terminated for Cause, or whose employment is terminated for any reason at a time when such termination could have been for Cause, shall immediately forfeit the balance of his or her Account, including any vested amounts. In addition, if a

Participant's employment is not terminated for Cause, but the Management Benefits Committee (with respect to non-Executive Officer Participants) or the Compensation Committee (with respect to Executive Officer Participants) later determines that such termination could have been for Cause if all the facts had been known at the time of such termination, then any unpaid portion of the Participant's Account shall be immediately forfeited as of the date of such Committee's determination. For the avoidance of doubt, the Management Benefits Committee (with respect to non-Executive Officer Participants) or the Compensation Committee (with respect to Executive Officer Participants) may determine, in its sole discretion, to not effectuate these forfeitures and provide for alternative vesting or forfeiture terms.

4.8. **Statement of Accounts**. To the extent that the Company does not arrange for a Participant's Account balance to be accessible online by the Participant, the Administrator shall provide to each Participant a statement showing the balance in the Participant's Account no less frequently than annually.

ARTICLE V - PLAN BENEFITS

5.1. **A Participant's Account**. The Participant's vested Account balance shall be distributable to the Participant upon the Participant's Termination as follows:

a) **Form of Payment**. The form of benefit payment shall be that form selected by the Participant in his or her Distribution Election made (or deemed made) pursuant to Section 3.2(a) (as may be amended in accordance with a subsequent Distribution Election under Section 3.3), and as permitted pursuant to Section 5.5.

b) **Timing of Payment**. Benefits payable from a Participant's Account shall be paid (if a lump sum) or commence (if installments) as soon as administratively possible after the first Determination Date that occurs on or following the six-month anniversary of the Participant's Termination date but no later than December 31 of the calendar year in which such Determination Date occurs. If installments, each subsequent payment shall occur in the next calendar year following the initial benefit payment.

5.2. **Death Benefit**. Upon the death of a Participant prior to the commencement of distributions from the Participant's Account, the Company shall pay to the Participant's Beneficiary an amount equal to the Participant's vested Account balance in the form of a lump sum payment as soon as administratively practicable (but in no event more than 90 days) after the Participant's death. In the event of the death of the Participant after the commencement of distributions from the Participant's Account, the remaining unpaid balance of the Participant's Account shall be paid to the Participant's Beneficiary in the form of a lump sum as soon as administratively possible (but in no event more than 90 days) after the Participant's death. If the Participant's Beneficiary, estate or legal representative fails to notify the Management Benefits Committee of the death of the Participant in the manner specified in Section 10.9, such that the Company is unable to make timely payment hereunder, then the Company shall not be treated as in breach of the Plan and shall not be liable to the Beneficiary, estate or legal representative for any losses, damages, or other claims resulting from such late payment.

5.3. **Disability Distributions**. Upon a finding by the Management Benefits Committee that a Participant has suffered a Disability, the Company shall make a full distribution of the Participant's Account. The payment of such distribution shall be made in the form of a lump sum in an amount equal to the Participant's vested Account balance as soon as administratively practical (but in no event more than 90 days) after the date of such Disability.

5.4. **Permitted Acceleration of Payments**. To the extent permitted by Section 409A of the Code, the Management Benefits Committee may, in its sole discretion, accelerate the time or schedule of a distribution under the Plan, such as accelerated distributions to address the payment of employment taxes or early income inclusion that may occur for a Participant's Account balance.

5.5. **Form of Payment**. Unless otherwise specified in this Article V, the benefits payable from a Participant's Account shall be paid in the form of benefit as provided below, and specified by the Participant in the Distribution Election or as otherwise set forth in Section 3.2(a). The permitted forms of benefit payments are:

a) A lump sum amount that is equal to the Participant's vested Account balance; and

b) Annual installments for a period of up to 10 years where the annual payment shall be equal to the Participant's vested Account balance immediately prior to the payment, multiplied by a fraction, the numerator of which is one and the denominator of which commences at the number of annual payments initially chosen and is reduced by one in each succeeding year. Interest on the unpaid balance shall be based on the most recent allocation among the available Valuation Funds chosen by the Participant, made in accordance with Section 4.3.

5.6. **Small Account**. If the Participant's vested Account balance as of the time the payments are to commence is less than $50,000, then such Account shall be paid in a lump sum, notwithstanding any election by the Participant to the contrary.

5.7. **Unforeseeable Emergency Distribution**. The Management Benefits Committee may at any time, upon written request of a Participant, cause to be paid to such Participant, an amount equal to all or any part of the Participant's vested Account balance if the Management Benefits Committee determines, based on such reasonable evidence that it shall require, that such a payment is necessary for the purpose of alleviating the consequences of an Unforeseeable Emergency. Payments of amounts because of an Unforeseeable Emergency may not exceed the amount necessary to satisfy the Unforeseeable Emergency plus amounts necessary to pay taxes or penalties reasonably anticipated as a result of the distribution after taking into account the extent to which the Unforeseeable Emergency is or may be relieved through reimbursement or compensation from insurance or otherwise, or by liquidation of the Participant's assets (to the extent the liquidation of such assets would not itself cause severe financial hardship). The amount of a Participant's Account shall be reduced by the amount of any Unforeseeable Emergency distribution to the Participant.

5.8. **Withholding; Payroll Taxes**. The Company or the applicable member of the Company Group shall withhold from any payment made pursuant to the Plan any taxes required to be withheld from such payments under local, state or federal law.

5.9. **Payments in Connection with a Domestic Relations Order**. Notwithstanding anything herein to the contrary, the Company may make distributions to someone other than the Participant if such payment is necessary to comply with a domestic relations order, as defined in Section 414(p)(1)(B) of the Code, involving the Participant.

5.10. **Payment to Guardian**. If a Plan benefit is payable to a minor or a person declared incompetent or to a person incapable of handling the disposition of the property, then the Management Benefits Committee may direct payment to the guardian, legal representative or person having the care and custody of such minor, incompetent or person. The Management Benefits Committee may require proof of incompetency, minority, incapacity or guardianship as it may deem appropriate prior to distribution. Such distribution shall completely discharge the Management Benefits Committee and the Company from all liability with respect to such benefit.

5.11. **Effect of Payment**. The full payment of the applicable benefit under this Article V shall completely discharge all obligations on the part of the Company to the Participant (and the Participant's Beneficiary) with respect to the operation of the Plan, and the Participant's (and the Participant's Beneficiary's) rights under the Plan shall terminate.

5.12. **Amount of Payment**. Notwithstanding anything herein to the contrary, the amount payable from a Participant's vested Account balance may be determined and valued within a period of up to 10 business days preceding the date of actual payment.

ARTICLE VI - BENEFICIARY DESIGNATION

6.1. **Beneficiary Designation**. Each Participant shall have the right, at any time, to designate one or more persons or entity as a Beneficiary (both primary as well as secondary) to whom benefits under the Plan shall be paid in the event of the Participant's death prior to complete distribution of the Participant's vested Account balance. Each Beneficiary designation shall be in the form prescribed by the Administrator, including through an online designation system, and shall be effective only when filed with the Administrator during the Participant's lifetime.

6.2. **Changing Beneficiary**. Except in instances when the listed Beneficiary is the spouse of the Participant, a Participant may change the Beneficiary designation without the consent of the previously named Beneficiary by filing a new Beneficiary designation with the Administrator during the Participant's lifetime. If the listed Beneficiary is the spouse of the Participant, the Participant shall obtain such Beneficiary's consent by the execution of a spousal consent form provided by the Company.

6.3. **No Beneficiary Designation**. If any Participant fails to designate a Beneficiary in the manner provided above, if the designation is void, or if the Beneficiary designated by a deceased Participant dies before the Participant or before complete distribution of the Participant's benefits, and the Beneficiary designation form does not specify to whom payments should be made in such event, then the Participant's Beneficiary shall be the Participant's estate.

6.4. **Effect of Payment**. Payment to the Beneficiary shall completely discharge the Company's obligations under the Plan.

ARTICLE VII - ADMINISTRATION

7.1. **Management Benefits Committee**. The Compensation Committee shall appoint a Management Benefits Committee for the Plan.

a) **Appointment and Removal of Management Benefits Committee**. The Management Benefits Committee shall consist of three or more individuals appointed by, and serving at the discretion of, the Compensation Committee. A member of the Management Benefits Committee may (i) resign upon 30 days' written notice to the Compensation

Committee, or (ii) be removed from the Management Benefits Committee at any time at the discretion of the Compensation Committee.

b) **Decisions by Management Benefits Committee**. The Management Benefits Committee shall act by majority vote either at a meeting of the Management Benefits Committee or by written consent. Meetings may be attended telephonically.

c) **Authority**. The Management Benefits Committee shall: (i) monitor the performance of the Plan to ensure that the Plan is administered in accordance with its terms and in compliance with applicable law or regulation; (ii) have full and exclusive discretionary authority to determine all questions arising in the administration, application and interpretation of the Plan including the authority to correct any defect or reconcile any inconsistency or ambiguity in the Plan and the authority to determine a Participant's eligibility to receive a benefit from the Plan and the amount of that benefit; (iii) determine all Claims appeals as set forth in Section 8.1 of the Plan and shall have the authority to determine all questions of fact relating to such an appeal, and any determination by the Management Benefits Committee pursuant to this Section 7.1(c) or Section 8.1 shall be binding and conclusive on all parties; and (iv) have the authority to make Plan amendments as long as such amendments do not have a significant cost impact to the Company. The Management Benefits Committee may also provide for the adoption of the Plan by an affiliated employer pursuant to such terms and conditions as the Management Benefits Committee, in its discretion, may determine. The Management Benefits Committee shall have the right to remove an affiliated employer as a Plan sponsor if, in its discretion, it deems such removal to be appropriate.

d) **Liability**. No member of the Management Benefits Committee or any other committee to which Plan administrative authority has been delegated, shall be personally liable by reason of any action taken by him or her in good faith or on his or her behalf as the Management Benefits Committee, nor for any mistake in judgment made in good faith.

7.2. **Administrator**. The Company shall be the Plan Administrator. The Administrator shall act on its behalf and perform the duties of the Plan Administrator as set forth herein. The Administrator shall administer the Plan in accordance with all applicable laws and regulations and, except as otherwise expressly provided to the contrary herein, shall have all powers and discretionary authority to carry out that obligation. Specifically, but not by way of limitation, the Administrator shall:

a) **Procedures and Forms**. Establish such administrative procedures and prepare, or cause to be prepared, such forms, as may be necessary or desirable for the proper administration of the Plan;

b) **Advisors**. Retain the services of such consultants and advisors as may be appropriate to the administration of the Plan;

c) **Payment of Benefits**. Direct, or establish procedures for, the payment of benefits from the Plan; and

d) **Plan Records**. Maintain, or cause to be maintained, all documents and records necessary or appropriate to the maintenance of the Plan.

7.3. **Binding Effect of Decisions**. The decision or action of any member of the Management Benefits Committee with respect to any question arising out of or in connection with the administration, interpretation and application of the Plan and the rules and regulations promulgated hereunder shall be final, conclusive and binding upon all persons having any interest in the Plan.

7.4. **Indemnity of Members of the Management Benefits Committee**. The Company shall indemnify and hold harmless the members of the Management Benefits Committee against any and all claims, loss, damage, expense or liability arising from any action or failure to act with respect to the Plan on account of such member's service for the Management Benefits Committee, except in the case of gross negligence or willful misconduct.

ARTICLE VIII - CLAIMS PROCEDURE

8.1. **Claim**. Any person or entity claiming a benefit, or requesting an interpretation, ruling, or information under the Plan, shall present the request in writing to the Management Benefits Committee within one year following the date that such person or entity knew or, exercising reasonable care, should have known of such claim in accordance with Company policy. All decisions on review shall be final and bind all parties concerned.

ARTICLE IX - AMENDMENT AND TERMINATION OF PLAN

9.1. **Amendment**. The Board or its appointed delegates may at any time amend the Plan by written instrument, notice of which is given to all the Participants and to each Beneficiary receiving installment payments who are affected by such amendment, except that no amendment shall reduce the amount vested or accrued in any Participant's Account as of the date the amendment is adopted. In addition, any amendment which adds a distribution event to the Plan shall not be affective with respect to any Participant's Account that is already established as of the time of such amendment. Notwithstanding anything in the Plan to the contrary, the Board or its appointed delegates shall have the unilateral right to amend the Plan to comply with Section 409A of the Code.

9.2. **Company's Right to Terminate**. The Board may, in its sole discretion, terminate the entire Plan and require distribution of all benefits due under the Plan or portion thereof, provided that:

a) The termination of the Plan does not occur proximate to a downturn in the financial health, as determined by the Management Benefits Committee, of the Company and all entities considered to be part of the same controlled group under Treas. Reg. §1.409A-1(g) (the "AAM Controlled Group");

b) The AAM Controlled Group also terminates all other plans or arrangements which are considered to be of a similar type as defined in Treas. Reg. §1.409A-1(c)(2)(i), or as otherwise provided by the Code;

c) No payments made in connection with the termination of the Plan occur earlier than 12 months following the Plan termination date other than payments the Plan would have made irrespective of Plan termination;

d) All payments made in connection with the termination of the Plan are completed within 24 months following the Plan termination date;

e) The AAM Controlled Group does not establish a new plan of a similar type as defined in Treas. Reg. §1.409A-1(c)(2)(i), within three years following the Plan termination date; and

f) The AAM Controlled Group meets any other requirements deemed necessary to comply with provisions of the Code and applicable regulations which permit the acceleration of the time and form of payment made in connection with plan terminations and liquidations.

ARTICLE X - MISCELLANEOUS

10.1. **Unfunded Plan**. The Plan is an unfunded plan maintained primarily to provide deferred compensation benefits for a select group of "management or highly-compensated employees" within the meaning of Sections 201, 301, and 401 of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), and therefore is exempt from the provisions of Parts 2, 3 and 4 of Title I of ERISA.

10.2. **Unsecured General Creditor**. The Plan constitutes an unsecured promise by the Company to pay benefits in the future. Notwithstanding any other provision of the Plan, all Participants and each Participant's Beneficiary shall be unsecured general creditors, with no secured or preferential rights to any assets of the Company or any other party for payment of benefits under the Plan. The Plan is unfunded for Federal tax purposes and for purposes of Title I of the Employee Retirement Income Security Act of 1974. Any property held by the Company for the purpose of generating the cash flow for benefit payments shall remain its general, unpledged and unrestricted assets. The Company's obligation under the Plan shall be an unfunded and unsecured promise to pay money in the future. No other member of the Company Group shall have any obligations or liabilities under the Plan. Any obligations on the Plan are solely those of the Company.

10.3. **Trust Fund**. The Company shall be responsible for the payment of all benefits provided under the Plan. At its discretion, the Company may establish one or more trusts, with such trustees as the Board may approve, for the purpose of assisting in the payment of such benefits. The assets of any such trust shall be held for payment of all the Company's general creditors in the event of insolvency. To the extent any benefits provided under the Plan are paid from any such trust, the Company shall have no further obligation to pay them. If not paid from the trust, such benefits shall remain the obligation of the Company.

10.4. **Compliance with Section 409A of the Code**. It is intended that the Plan comply with the provisions of Section 409A of the Code, so as to prevent the inclusion in gross income of any amounts deferred hereunder in a taxable year that is prior to the taxable year or years in which such amounts would otherwise actually be paid or made available to the Participants or Beneficiaries. The Plan shall be construed, administered, and governed in a manner that affects such intent. Neither the Company, any other member of the Company Group nor any Committee guarantees or provides any warranties with respect to the tax treatment of amounts deferred under the Plan. Neither the Company, any other member of the Company Group, the Board, any director, officer, employee and advisor, nor any Committee (nor its designee) shall be held liable for any taxes, interest, penalties or other monetary amounts owed by any Participant, Beneficiary or other taxpayer as a result of the Plan. For purposes of the Plan, the phrase "permitted by Section 409A of the Code," or words or phrases of similar import, shall mean that the event or circumstance shall only be permitted to the extent it would not cause an amount deferred or payable under the Plan to be includible in the gross income of a Participant or Beneficiary under Section 409A(a)(1) of the Code.

10.5. **Nonassignability and Offset**.

a) **Nonassignability**. Neither a Participant nor any other person shall have any right to commute, sell, assign, transfer, pledge, anticipate, mortgage or otherwise encumber, transfer, hypothecate or convey in advance of actual receipt the amounts, if any, payable hereunder, or any part thereof, which are, and all rights to which are, expressly declared to be unassignable and non-transferable, other than (i) to a Participant's Beneficiary pursuant to Article VI, (ii) pursuant to a domestic relations order deemed legally sufficient by the Management Benefits Committee, or (iii) by will or the laws of descent and distribution. No part of the amounts payable shall, prior to actual payment, be subject to seizure or sequestration for the payment of any debts, judgments, alimony or separate maintenance owed by a Participant or any other person, nor be transferable by operation of law in the event of a Participant's or any other person's bankruptcy or insolvency.

b) **Offset**. If, at the time a payment is due hereunder, the Company determines that the Participant is indebted or obligated to the Company or any other member of the Company Group (including, but not limited to, for amounts owed as a result of the Participant's breach of his or her fiduciary duty owed to, or breach of any restrictive covenant in effect with, the Company Group), then the payment to be made to or with respect to such Participant (including a payment to the Participant's Beneficiary) may, at the discretion of the Company, be reduced by the amount of such indebtedness or obligation; provided, however, that an election by the Company to not reduce any such payment shall not constitute a waiver of its claim for such indebtedness or obligation.

10.6. **Not a Contract of Employment**. The Plan shall not constitute a contract of employment between the Company Group and the Participant. Nothing in the Plan shall give a Participant the right to be retained in the service of the Company Group or to interfere with the right of the Company Group to discipline or discharge a Participant at any time.

10.7. **Protective Provisions**. A Participant will cooperate with the Company by furnishing any and all information requested by the Company, in order to facilitate the payment of benefits hereunder, and by taking such physical examinations as the Company may deem necessary and taking such other action as may be requested by the Company.

10.8. **Governing Law**. The provisions of the Plan shall be construed and interpreted according to the laws of the State of Michigan, without giving effect to any choice of law or conflict of law provision or rule, except as preempted by federal law.

10.9. **Validity**. If any provision of the Plan shall be held illegal or invalid for any reason, said illegality or invalidity shall not affect the remaining parts hereof, but the Plan shall be construed and enforced as if such illegal and invalid provision had never been inserted herein.

10.10. **Notice**. Any notice required or permitted under the Plan shall be sufficient if in writing and sent by (i) registered, certified mail, or (ii) electronic mail at benefits@aam.com (with a simultaneous confirmation copy sent by first class mail properly addressed and postage prepaid). Such notice shall be deemed given as of the date of delivery or, if delivery is made by mail, as of the date shown on the postmark on the receipt for registration or certification. Mailed notice shall be directed to “Administrator: ERSP, Attention Human Resources Department” at the Company’s headquarters address. Mailed notice to a Participant or Beneficiary shall be directed to the individual’s last known address in the Company’s records.

10.11. **Successors**. The provisions of the Plan shall bind and inure to the benefit of the Company and its successors and assigns. The term successors as used herein shall include any corporate or other business entity which shall, whether by merger, consolidation, purchase or otherwise acquire all or substantially all of the business and assets of the Company, and successors of any such corporation or other business entity.

EXHIBIT 22 - SUBSIDIARY GUARANTORS AND ISSUERS OF GUARANTEED SECURITIES
AMERICAN AXLE & MANUFACTURING HOLDINGS, INC.

Our 6.875% Notes, 6.50% Notes, 6.25% Notes (due 2026) and 6.25% Notes (due 2025) are senior unsecured obligations of American Axle & Manufacturing, Inc., all of which are fully and unconditionally guaranteed, on a joint and several basis, by American Axle & Manufacturing Holdings, Inc. and substantially all domestic subsidiaries of American Axle & Manufacturing, Inc. and Metaldyne Performance Group, Inc. The table below defines these entities.

Entity	Organized Under Laws of
Parent Entity	
American Axle & Manufacturing Holdings, Inc.	Delaware
Issuing Entity	
American Axle & Manufacturing, Inc.	Delaware
Guarantor Entities	
AAM International Holdings, Inc.	Delaware
Auburn Hills Manufacturing, Inc.	Delaware
Oxford Forge, Inc.	Delaware
MSP Industries Corporation	Michigan
Colfor Manufacturing, Inc.	Delaware
Accugear, Inc.	Delaware
Rochester Manufacturing, LLC	Indiana
Metaldyne Performance Group, Inc.	Delaware
MPG Holdco I Inc.	Delaware
Metaldyne BSM, LLC	Delaware
Metaldyne M&A Bluffton, LLC	Delaware
Metaldyne Powertrain Components, Inc.	Delaware
Metaldyne Sintered Ridgway, LLC	Delaware
Metaldyne SinterForged Products, LLC	Delaware
Punchcraft Machining and Tooling, LLC	Delaware
HHI FormTech, LLC	Delaware
Jernberg Industries, LLC	Delaware
Impact Forge Group, LLC	Delaware
ASP HHI Holdings, Inc.	Delaware
ASP HHI Acquisition Co., Inc.	Delaware
ASP MD Holdings, Inc.	Delaware
MD Investors Corporation	Delaware
Metaldyne, LLC	Delaware
Gear Design and Manufacturing, LLC	Delaware
AAM Powder Metal Components, Inc.	Ohio
ASP Grede Intermediate Holdings LLC	Delaware
HHI Holdings, LLC	Delaware
AAM Casting Corp.	Delaware

EXHIBIT 31.1 - CERTIFICATION PURSUANT TO RULE 13a-14(a)
OF THE SECURITIES EXCHANGE ACT

I, David C. Dauch, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of American Axle & Manufacturing Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 30, 2020

/s/ David C. Dauch
David C. Dauch
Chairman of the Board & Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2 - CERTIFICATION PURSUANT TO RULE 13a-14(a)
OF THE SECURITIES EXCHANGE ACT

I, Christopher J. May, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of American Axle & Manufacturing Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 30, 2020

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

EXHIBIT 32 - CERTIFICATIONS PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of American Axle & Manufacturing Holdings, Inc. (Issuer) on Form 10-Q for the period ending September 30, 2020 as filed with the Securities and Exchange Commission on the date hereof (Report), I, David C. Dauch, Chairman of the Board & Chief Executive Officer of the Issuer, and I, Christopher J. May, Vice President & Chief Financial Officer of the Issuer, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Issuer.

/s/ David C. Dauch	/s/ Christopher J. May
David C. Dauch	Christopher J. May
Chairman of the Board &	Vice President &
Chief Executive Officer	Chief Financial Officer
October 30, 2020	October 30, 2020