

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

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**FORM 10-Q**

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

For the quarterly period ended September 30, 2018  
OR

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

Commission File No. 001-35456

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**ALLISON TRANSMISSION HOLDINGS, INC.**

(Exact Name of Registrant as Specified In Its Charter)



Delaware  
(State of Incorporation)

26-0414014  
(I.R.S. Employer  
Identification Number)

One Allison Way  
Indianapolis, IN  
(Address of Principal Executive Offices)

46222  
(Zip Code)

(317) 242-5000

(Registrant's Telephone Number, Including Area Code)

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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 the 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

As of October 15, 2018, there were 129,638,240 shares of Common Stock outstanding.

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**PART I. FINANCIAL INFORMATION**

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**ITEM 1. Financial Statements**

**Allison Transmission Holdings, Inc.**  
**Condensed Consolidated Balance Sheets**  
**(unaudited, dollars in millions, except per share data)**

	September 30, 2018	December 31, 2017
<b>ASSETS</b>		
Current Assets		
Cash and cash equivalents	\$ 221	\$ 199
Accounts receivable – net of allowance for doubtful accounts of \$1 and \$0, respectively	335	221
Inventories	166	154
Income taxes receivable	18	33
Other current assets	24	25
Total Current Assets	764	632
Property, plant and equipment, net	448	448
Intangible assets, net	1,087	1,153
Goodwill	1,941	1,941
Other non-current assets	45	31
<b>TOTAL ASSETS</b>	<b>\$ 4,285</b>	<b>\$ 4,205</b>
<b>LIABILITIES</b>		
Current Liabilities		
Accounts payable	\$ 198	\$ 159
Product warranty liability	26	22
Current portion of long-term debt	—	12
Deferred revenue	35	41
Other current liabilities	189	183
Total Current Liabilities	448	417
Product warranty liability	41	33
Deferred revenue	89	75
Long-term debt	2,522	2,534
Deferred income taxes	322	276
Other non-current liabilities	179	181
<b>TOTAL LIABILITIES</b>	<b>3,601</b>	<b>3,516</b>
Commitments and contingencies (see NOTE O)		
<b>STOCKHOLDERS' EQUITY</b>		
Common stock, \$0.01 par value, 1,880,000,000 shares authorized, 129,638,240 shares issued and outstanding and 139,990,865 shares issued and outstanding, respectively	1	1
Non-voting common stock, \$0.01 par value, 20,000,000 shares authorized, none issued and outstanding	—	—
Preferred stock, \$0.01 par value, 100,000,000 shares authorized, none issued and outstanding	—	—
Paid in capital	1,784	1,758
Accumulated deficit	(1,075)	(1,055)
Accumulated other comprehensive loss, net of tax	(26)	(15)
<b>TOTAL STOCKHOLDERS' EQUITY</b>	<b>684</b>	<b>689</b>
<b>TOTAL LIABILITIES &amp; STOCKHOLDERS' EQUITY</b>	<b>\$ 4,285</b>	<b>\$ 4,205</b>

The accompanying notes are an integral part of the condensed consolidated financial statements.

**Allison Transmission Holdings, Inc.**  
**Condensed Consolidated Statements of Comprehensive Income**  
**(unaudited, dollars in millions, except per share data)**

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Net sales	\$ 692	\$ 595	\$ 2,066	\$ 1,674
Cost of sales	324	293	982	831
<b>Gross profit</b>	<b>368</b>	<b>302</b>	<b>1,084</b>	<b>843</b>
Selling, general and administrative	89	78	274	245
Engineering — research and development	33	26	94	74
<b>Operating income</b>	<b>246</b>	<b>198</b>	<b>716</b>	<b>524</b>
Interest expense, net	(30)	(26)	(90)	(78)
Other income (expense), net	2	(2)	5	(3)
<b>Income before income taxes</b>	<b>218</b>	<b>170</b>	<b>631</b>	<b>443</b>
Income tax expense	(51)	(59)	(139)	(154)
<b>Net income</b>	<b>\$ 167</b>	<b>\$ 111</b>	<b>\$ 492</b>	<b>\$ 289</b>
<b>Basic earnings per share attributable to common stockholders</b>	<b>\$ 1.28</b>	<b>\$ 0.75</b>	<b>\$ 3.66</b>	<b>\$ 1.91</b>
<b>Diluted earnings per share attributable to common stockholders</b>	<b>\$ 1.27</b>	<b>\$ 0.75</b>	<b>\$ 3.64</b>	<b>\$ 1.90</b>
<b>Dividends declared per common share</b>	<b>\$ 0.15</b>	<b>\$ 0.15</b>	<b>\$ 0.45</b>	<b>\$ 0.45</b>
<b>Comprehensive income, net of tax</b>	<b>\$ 168</b>	<b>\$ 116</b>	<b>\$ 481</b>	<b>\$ 300</b>

The accompanying notes are an integral part of the condensed consolidated financial statements.

**Allison Transmission Holdings, Inc.**  
**Condensed Consolidated Statements of Cash Flows**  
**(unaudited, dollars in millions)**

	Nine months ended September 30,	
	2018	2017
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income	\$ 492	\$ 289
Adjustments to reconcile net income to net cash provided by operating activities:		
Amortization of intangible assets	66	67
Depreciation of property, plant and equipment	58	60
Deferred income taxes	46	72
Stock-based compensation	9	8
Amortization of deferred financing costs	5	4
Unrealized gain on derivatives	—	(10)
Other	7	5
Changes in assets and liabilities:		
Accounts receivable	(117)	(71)
Inventories	(15)	(28)
Accounts payable	29	56
Other assets and liabilities	25	40
Net cash provided by operating activities	<u>605</u>	<u>492</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Additions of long-lived assets	(52)	(40)
Investments in technology-related initiatives	—	(3)
Net cash used for investing activities	<u>(52)</u>	<u>(43)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Repurchases of common stock	(456)	(778)
Dividend payments	(61)	(68)
Payments on long-term debt	(28)	(9)
Proceeds from exercise of stock options	21	14
Taxes paid related to net share settlement of equity awards	(4)	(1)
Debt financing fees	(1)	(5)
Borrowings on revolving credit facility	—	415
Repayments on revolving credit facility	—	(415)
Issuance of long-term debt	—	400
Net cash used for financing activities	<u>(529)</u>	<u>(447)</u>
Effect of exchange rate changes on cash	(2)	3
Net increase in cash and cash equivalents	<u>22</u>	<u>5</u>
Cash and cash equivalents at beginning of period	199	205
Cash and cash equivalents at end of period	<u>\$ 221</u>	<u>\$ 210</u>
Supplemental disclosures:		
Interest paid	\$ 68	\$ 71
Income taxes paid	\$ 80	\$ 65

The accompanying notes are an integral part of the condensed consolidated financial statements.

**Allison Transmission Holdings, Inc.**  
**Notes to Condensed Consolidated Financial Statements**  
**(UNAUDITED)**

**NOTE A. OVERVIEW**

*Overview*

Allison Transmission Holdings, Inc. and its subsidiaries (“Allison” or the “Company”) design and manufacture commercial and defense fully automatic transmissions. The business was founded in 1915 and has been headquartered in Indianapolis, Indiana since inception. Allison was an operating unit of General Motors Corporation from 1929 until 2007, when Allison once again became a stand-alone company. In March 2012, Allison began trading on the New York Stock Exchange under the symbol, “ALSN”.

The Company has approximately 2,700 employees and 13 different transmission product lines. Although approximately 79% of revenues were generated in North America in 2017, the Company has a global presence by serving customers in Europe, Asia, South America and Africa. The Company serves customers through an independent network of approximately 1,400 independent distributor and dealer locations worldwide.

**NOTE B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

*Basis of Presentation and Principles of Consolidation*

The condensed consolidated financial statements have been prepared in accordance with accounting principles for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, the condensed consolidated financial statements do not include all information and footnotes required by accounting principles generally accepted in the United States of America (“GAAP”) for complete financial statements. The information herein reflects all normal recurring material adjustments, which are, in the opinion of management, necessary for the fair statement of the results for the periods presented. The condensed consolidated financial statements herein consist of all wholly-owned domestic and foreign subsidiaries with all significant intercompany transactions eliminated.

These condensed consolidated financial statements present the financial position, results of comprehensive income and cash flows of the Company. The condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements included in the Company’s Form 10-K for the year ended December 31, 2017 as filed with the Securities and Exchange Commission (“SEC”) on February 15, 2018. The interim period financial results for the three and nine month periods presented are not necessarily indicative of results to be expected for any other interim period or for the entire year.

*Use of Estimates*

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities and the reported amounts of revenue and expenses. Estimates include, but are not limited to, sales allowances, government price adjustments, fair market values and future cash flows associated with goodwill, indefinite life intangibles, long-lived asset impairment tests, useful lives for depreciation and amortization, warranty liabilities, environmental liabilities, determination of discount and other assumptions for pension and other post-retirement benefit expense, income taxes and deferred tax valuation allowances, derivative valuation and contingencies. The Company’s accounting policies involve the application of judgments and assumptions made by management that include inherent risks and uncertainties. Actual results could differ materially from these estimates. Changes in estimates are recorded in results of operations in the period that the events or circumstances giving rise to such changes occur.

***Recently Adopted Accounting Pronouncements***

In August 2017, the Financial Accounting Standards Board (“FASB”) issued authoritative accounting guidance on accounting for derivative and hedge instruments. Among other things, the guidance allows the initial hedge effectiveness assessment to be performed by the end of the quarter in which the hedge is designated, permits a qualitative assessment for certain hedges if an expectation of high effectiveness can be supported throughout the term of the hedge, and removes the requirement to record ineffectiveness on cash flow hedges immediately through earnings when the hedge is highly effective. The guidance was early adopted by the Company effective April 1, 2018 and applied upon entering into interest rate swaps designated as cash flow hedges during the second quarter of 2018. When adopted in an interim period, the guidance is required to be reflected as of the beginning of the year of adoption. The Company has not previously designated any derivative instruments as hedging instruments, and thus, the adoption of this guidance did not have a material impact on the Company’s consolidated financial statements.

In May 2017, the FASB issued authoritative accounting guidance on accounting for modifications to the terms of employee stock compensation. The guidance clarifies which changes to terms or conditions of share-based payment awards require the entity to apply modification accounting. The guidance was adopted by the Company effective January 1, 2018 and did not have a material impact on the Company’s consolidated financial statements.

In March 2017, the FASB issued authoritative accounting guidance on the presentation of net periodic pension costs and net periodic post-retirement benefit costs. The guidance clarifies the presentation of component costs within an employer’s financial statements and restricts component costs eligible for capitalization to the service cost component. The guidance was adopted by the Company effective January 1, 2018 and did not have a material impact on the Company’s consolidated financial statements.

In August 2016, the FASB issued authoritative accounting guidance on the presentation and classification of certain cash receipts and cash payments on the statement of cash flows. The guidance specifically addresses cash flow issues with the objective of reducing the diversity in practice. The guidance was adopted by the Company effective January 1, 2018 and did not have a material impact on the Company’s consolidated financial statements.

In May 2014, the FASB issued authoritative accounting guidance on a company’s accounting for revenue from contracts with customers, which guidance was subsequently amended. The guidance applies to all companies that enter into contracts with customers to transfer goods, services or nonfinancial assets. The guidance requires these companies to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The guidance also requires disclosures regarding the nature, timing, amount and uncertainty of revenue that is recognized. The guidance was adopted by the Company effective January 1, 2018 on a modified retrospective basis. See Note C, “Revenue” for information regarding the impact of the adoption of this guidance.

***Recently Issued Accounting Pronouncements***

In August 2018, the FASB issued authoritative accounting guidance on accounting for implementation costs in hosting arrangements to align these costs with existing guidance for internally developed software. The stage of implementation must be assessed to determine if costs should be capitalized or expensed, and capitalized costs should be expensed during the noncancellable term of the agreement. The guidance will be effective for the Company in fiscal year 2020, but early adoption is permitted. Management is currently evaluating the impact of this guidance on the Company’s consolidated financial statements.

In August 2018, the FASB issued authoritative accounting guidance amending disclosure requirements for the Company’s defined benefit pension plans and other postretirement benefit plan. The guidance will be effective for the Company in fiscal year 2021, but early adoption is permitted. Management is currently evaluating the impact of this guidance on the Company’s consolidated financial statements.

In August 2018, the FASB issued authoritative accounting guidance amending disclosure requirements for certain assets subject to fair value measurement. The guidance allows the Company to reduce the amount of disclosure on transfers between Level 1 and Level 2 assets. The guidance will be effective for the Company in fiscal year 2020, but early adoption is permitted. Management is currently evaluating the impact of this guidance on the Company’s consolidated financial statements.

In June 2018, the FASB issued authoritative accounting guidance on accounting for nonemployee awards for goods or services received by a company. The guidance will be effective for the Company in fiscal year 2019, and the Company does not plan to early adopt. Management is currently evaluating the impact of this guidance on the Company’s consolidated financial statements.

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In February 2018, the FASB issued authoritative accounting guidance on transfers of stranded balances in accumulated other comprehensive loss to retained earnings. The passage of the U.S. Tax Cuts and Jobs Act by the U.S. federal government in December 2017 and existing GAAP requirements to adjust deferred tax assets and liabilities for changes in tax laws or rates created stranded balances in accumulated other comprehensive loss on deferred tax assets and liabilities previously recorded as a component to accumulated other comprehensive loss. The guidance applies to companies affected by these stranded balances and allows a reclassification of these balances to retained earnings. The guidance will be effective for the Company in fiscal year 2019, but early adoption is permitted. The guidance can be applied either in the period of adoption or retrospectively to each period in which the effect of the change in the U.S. federal corporate income tax rate in the U.S. Tax Cuts and Jobs Act is recognized. Management is currently evaluating the adoption method the Company will implement; however, Management does not expect the adoption of this guidance to have a material impact on the Company's consolidated financial statements under either adoption method.

In February 2016, the FASB issued authoritative accounting guidance on lease accounting. The guidance requires lessees to present right-of-use assets and lease liabilities on the balance sheet for all leases not considered short-term leases. Short-term leases are leases with a lease term of 12 months or less as long as the leases do not include options to purchase the underlying assets that the lessee is reasonably certain to exercise. The guidance also introduces new disclosure requirements for leasing arrangements. The guidance will be effective for the Company in fiscal year 2019 and the Company does not plan to early adopt. In July 2018, the FASB issued additional authoritative guidance on this topic giving lessees an optional adoption approach under which the impact of the adoption of the guidance would be shown as of the date of adoption. Management has elected to adopt the guidance using this modified retrospective approach. Management is currently evaluating the Company's lease contracts, assessing the impact of the adoption of policy elections and practical expedients prescribed by the guidance and evaluating qualitative information relevant to new disclosure requirements. Management does not expect the adoption of this guidance to have a material impact on the Company's consolidated financial statements.

### **NOTE C. REVENUE**

#### ***Adoption of New Revenue Guidance***

New authoritative accounting guidance for revenue was adopted by the Company effective January 1, 2018 using the modified retrospective approach. Current period results are presented in conformity with the new authoritative accounting guidance, while prior period results are presented in conformity with prior accounting guidance.

In accordance with the modified retrospective approach, the Company recorded a one-time adjustment related to sales of Extended Transmission Coverage ("ETC") contracts open as of the date of adoption, which increased opening retained earnings by \$5 million, net of tax, and decreased current deferred revenue by \$2 million and non-current deferred revenue by \$4 million as of January 1, 2018.

During the three months ended September 30, 2018, neither net sales nor deferred revenue were impacted by the application of this guidance. During the nine months ended September 30, 2018, the Company increased net sales by \$1 million, and decreased non-current deferred revenue by \$1 million, compared to prior accounting guidance, as a result of how the Company allocates revenue to the ETC performance obligation in certain contracts under the new authoritative accounting guidance for revenue.

Under the new authoritative accounting guidance, revenue is recognized as each distinct performance obligation within a contract is satisfied. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. The Company enters into long-term supply agreements ("LTSAs") and distributor agreements with certain customers. The LTSAs and distributor agreements do not include committed volumes until underlying purchase orders are issued; therefore, the Company determined that purchase orders are the contract with a customer. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when the performance obligation is satisfied, as there is no right of return.

Many of the Company's contracts have a single performance obligation, as the promise to transfer the individual good or service is not separately identifiable from other promises in the contracts and is, therefore, not distinct. Some of our contracts have multiple performance obligations, most commonly the sale of both a transmission and ETC. For contracts with multiple performance obligations, the Company allocates the contract's transaction price to each performance obligation using a ratable allocation based on the standalone selling price of each distinct good or service in the contract.

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The Company may also use volume based discounts and rebates as marketing incentives in the sales of both transmissions and service parts, which are accounted for as variable consideration. The Company records the impact of the incentives as a reduction to revenue when it is determined that the adjustment is not likely to reverse, historically on a quarterly basis. Due to the typically short duration of purchase orders and minimal number of open contracts with variable consideration at any point in time, the impact of variable consideration is immaterial. If it were to become material, the Company would explain the methods, assumptions and estimates used to determine the consideration allocated to each performance obligation. The Company estimates the impact of all other incentives based on the related sales and market conditions in the end market vocation.

Net sales are made on credit terms, generally 30 days, based on an assessment of the customer's creditworthiness. For certain goods or services, the Company receives consideration prior to satisfying the related performance obligation. Such consideration is recorded as a contract liability in current and non-current Deferred Revenue as of September 30, 2018 and December 31, 2017. See Note J, "Deferred Revenue" for more information including the amount of revenue earned during the three and nine months ended September 30, 2018 that had been previously deferred. The Company does not have contract assets.

#### ***Disaggregated Revenue***

The Company has one operating segment and reportable segment. The Company is in one line of business, which is the manufacture and distribution of fully automatic transmissions. The following presents disaggregated revenue by categories that best depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors (dollars in millions):

	Three months ended September 30, 2018	Nine months ended September 30, 2018
North America On-Highway	\$ 332	\$ 1,014
North America Off-Highway	12	76
Defense	42	122
Outside North America On-Highway	96	288
Outside North America Off-Highway	46	82
Service Parts, Support Equipment and Other	164	484
Total Net Sales	<u>\$ 692</u>	<u>\$ 2,066</u>

Disaggregated revenue by end market is further described as follows:

#### ***North America On-Highway***

Revenue from the North America On-Highway end market is driven by the sale of transmissions to original equipment manufacturers ("OEMs"), distributors and dealers that install the transmission into Class 4-5, Class 6-7 and Class 8 straight trucks and metro tractors, conventional transit, shuttle and coach buses, school buses and motorhome applications. Revenue from the North America On-Highway end market also includes the sale of electric hybrid-propulsion systems for transit bus. Revenue is recognized at the point in time when control passes to the customer, which is based on shipping terms when the order is fulfilled by the Company.

#### ***North America Off-Highway***

Revenue from the North America Off-Highway end market is driven by sales of transmissions to OEMs and distributors that serve end users who operate vehicles and auxiliary equipment in energy, mining and construction applications. Revenue is recognized at the point in time when control passes to the customer, which is based on shipping terms when the order is fulfilled by the Company.

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### *Defense*

Revenue from the Defense end market is driven by sales of transmissions to the U.S. Government or its contractors and sales to certain government contractors outside of the U.S. for use in both wheeled and tracked defense vehicle applications. Revenue is recognized at the point in time when control passes to the customer, which is based on shipping terms when the order is fulfilled by the Company.

Periodically, the Company and the U.S. Government will enter into a bill-and-hold arrangement where a completed transmission physically remains at the Company's facility at the request of the U.S. Government. Revenue is recognized at the point in time when it is determined that the U.S. Government accepts the transmission and is able to direct its use.

### *Outside North America On-Highway*

Revenue from the Outside North America On-Highway end market is driven by the sale of transmissions to OEMs and distributors that produce vehicles for commercial users in medium and heavy duty applications. Revenue is recognized at the point in time when control passes to the customer, which is based on shipping terms when the order is fulfilled by the Company.

### *Outside North America Off-Highway*

Revenue from the Outside North America Off-Highway end market is driven by sales of transmissions to OEMs and distributors serving end users who operate vehicles and auxiliary equipment in energy, mining and construction applications. Revenue is recognized at the point in time when control passes to the customer, which is based on shipping terms when the order is fulfilled by the Company.

### *Service Parts, Support Equipment and Other*

Revenue from the Service Parts, Support Equipment and Other end market is primarily derived from the sale of transmission parts and fluid purchased for the normal maintenance and repair needs of products in service and the sale of ETC contracts which extend the warranty coverages of transmissions beyond the standard warranty period.

Revenue is recognized on sales of service parts and support equipment at the point in time when control passes to the customer, which is based on shipping terms when the order is fulfilled by the Company.

Revenue from the sale of ETC contracts is recognized ratably over the time period that corresponds with the period of coverage, as the Company has determined this method best depicts the progress towards satisfaction of its performance obligation. ETC contracts are sold in one to five year durations within the North America On-Highway, Outside North America On-Highway, North America Off-Highway and Outside North America Off-Highway end markets. The ETC contract period begins when the standard warranty coverage period ends. All consideration allocated to an ETC performance obligation is initially deferred until the coverage period begins.

## **NOTE D. INVENTORIES**

Inventories consisted of the following components (dollars in millions):

	September 30, 2018	December 31, 2017
Purchased parts and raw materials	\$ 82	\$ 79
Work in progress	8	6
Service parts	45	46
Finished goods	31	23
Total inventories	<u>\$ 166</u>	<u>\$ 154</u>

Inventory components shipped to third parties, primarily cores, parts to re-manufacturers, and parts to contract manufacturers, which the Company has an obligation to buy back, are included in purchased parts and raw materials, with an offsetting liability in Other current liabilities. See NOTE K, "Other Current Liabilities" for more information.

**NOTE E. GOODWILL AND OTHER INTANGIBLE ASSETS**

As of both September 30, 2018 and December 31, 2017, the carrying amount of the Company's Goodwill was \$1,941 million.

The following presents a summary of other intangible assets (dollars in millions):

	September 30, 2018			December 31, 2017		
	Intangible assets, gross	Accumulated amortization	Intangible assets, net	Intangible assets, gross	Accumulated amortization	Intangible assets, net
Other intangible assets:						
Trade name	\$ 790	\$ —	\$ 790	\$ 790	\$ —	\$ 790
Customer relationships — commercial	832	(608)	224	832	(573)	259
Proprietary technology	476	(425)	51	476	(396)	80
Customer relationships — defense	62	(40)	22	62	(38)	24
Patented technology — defense	28	(28)	—	28	(28)	—
Non-compete agreement	17	(17)	—	17	(17)	—
Tooling rights	5	(5)	—	5	(5)	—
Total	\$ 2,210	\$ (1,123)	\$ 1,087	\$ 2,210	\$ (1,057)	\$ 1,153

As of September 30, 2018 and December 31, 2017, the net carrying value of the Company's Goodwill and Other intangible assets, net was \$3,028 million and \$3,094 million, respectively.

Amortization expense related to other intangible assets for the next five fiscal years is expected to be (dollars in millions):

	2019	2020	2021	2022	2023
Amortization expense	\$ 86	\$ 50	\$ 45	\$ 43	\$ 42

**NOTE F. FAIR VALUE OF FINANCIAL INSTRUMENTS**

In accordance with the FASB's authoritative accounting guidance on fair value measurements, fair value is the price (exit 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 Company utilizes market data or assumptions that market participants would use in pricing the asset or liability, including assumptions about risk and the risks inherent in the inputs to the valuation technique. These inputs can be readily observable, market corroborated, or generally unobservable. The Company primarily applies the market approach for recurring fair value measurements and utilizes the best available information that maximizes the use of observable inputs and minimizes the use of unobservable inputs. The Company is able to classify fair value balances based on the observability of those inputs. The accounting guidance establishes a fair value hierarchy that prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurement) and the lowest priority to unobservable inputs (Level 3 measurement). The three levels of the fair value hierarchy defined by the relevant guidance are as follows:

Level 1 — Quoted prices are available in active markets for identical assets or liabilities as of the reporting date. Active markets are those in which transactions for the asset or liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis. Level 1 primarily consists of financial instruments such as exchange-traded derivatives, listed equities and publicly traded bonds.

Level 2 — Pricing inputs are other than quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the reported date. Level 2 includes financial instruments that are valued using quoted prices in markets that are not active and those financial instruments that are valued using models or other valuation methodologies. These models are primarily industry standard models that consider various assumptions, including quoted forward prices for commodities, time value, volatility factors, and current market and contractual prices for the underlying instruments, as well as other relevant economic measures. Substantially all of these assumptions are observable in the marketplace throughout the full term of the instrument, can be derived from observable data or are supported by observable levels at which transactions are executed in the marketplace.

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Level 3 — Pricing inputs include significant inputs that are generally less observable from objective sources. These inputs may be used with internally developed methodologies that result in management’s best estimate of fair value. At each balance sheet date, the Company performs an analysis of all instruments subject to authoritative accounting guidance and includes, in Level 3, all of those whose fair value is based on significant unobservable inputs. As of September 30, 2018 and December 31, 2017, the Company did not have any Level 3 financial assets or liabilities.

The Company’s assets and liabilities that are measured at fair value include cash equivalents, derivative instruments, assets held in a rabbi trust and a deferred compensation obligation. The Company’s cash equivalents consist of short-term U.S. government backed securities. The Company’s derivative instruments consist of interest rate swaps. The Company’s assets held in the rabbi trust consist principally of publicly available mutual funds and target date retirement funds. The Company’s deferred compensation obligation is directly related to the fair value of assets held in the rabbi trust.

The Company’s valuation techniques used to calculate the fair value of cash and cash equivalents, assets held in the rabbi trust and the deferred compensation obligation represent a market approach in active markets for identical assets that qualify as Level 1 in the fair value hierarchy. The Company’s valuation techniques used to calculate the fair value of derivative instruments represent a market approach with observable inputs that qualify as Level 2 in the fair value hierarchy.

The Company uses valuations from the issuing financial institutions for the fair value measurement of interest rate swaps. The floating-to-fixed interest rate swaps are based on the London Interbank Offered Rate (“LIBOR”) which is observable at commonly quoted intervals. The fair values are included in other current and non-current assets and liabilities in the Condensed Consolidated Balance Sheets.

The following table summarizes the fair value of the Company’s financial assets and (liabilities) as of September 30, 2018 and December 31, 2017 (dollars in millions):

	Fair Value Measurements Using					
	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		TOTAL	
	September 30, 2018	December 31, 2017	September 30, 2018	December 31, 2017	September 30, 2018	December 31, 2017
Cash equivalents	\$ 50	\$ 50	\$ —	\$ —	\$ 50	\$ 50
Rabbi trust assets	11	8	—	—	11	8
Deferred compensation obligation	(11)	(8)	—	—	(11)	(8)
Derivative assets	—	—	2	—	2	—
<b>Total</b>	<b>\$ 50</b>	<b>\$ 50</b>	<b>\$ 2</b>	<b>\$ —</b>	<b>\$ 52</b>	<b>\$ 50</b>

**NOTE G. DEBT**

Long-term debt and maturities are as follows (dollars in millions):

	September 30, 2018	December 31, 2017
Long-term debt:		
Senior Secured Credit Facility Term B-3 Loan, variable, due 2022	\$ 1,148	\$ 1,176
Senior Notes, fixed 5.0%, due 2024	1,000	1,000
Senior Notes, fixed 4.75%, due 2027	400	400
<b>Total long-term debt</b>	<b>\$ 2,548</b>	<b>\$ 2,576</b>
Less: current maturities of long-term debt	—	12
deferred financing costs, net	26	30
<b>Total long-term debt, net</b>	<b>\$ 2,522</b>	<b>\$ 2,534</b>

As of September 30, 2018, the Company had \$2,522 million of indebtedness associated with Allison Transmission, Inc.’s (“ATT”), the Company’s wholly-owned subsidiary, 5.0% Senior Notes due September 2024 (“5.0% Senior Notes”), ATI’s 4.75% Senior Notes due October 2027 (“4.75% Senior Notes”) and ATI’s Senior Secured Credit Facility (“Senior Secured Credit Facility”), which consists of the Senior Secured Credit Facility Term B-3 Loan due 2022 (“Term B-3 Loan”) and the Senior Secured Credit Facility revolving credit facility due 2021 (“Revolving Credit Facility”).

The fair value of the Company's long-term debt obligations as of September 30, 2018 was \$2,526 million. The fair value is based on quoted Level 2 market prices of the Company's debt as of September 30, 2018. It is not expected that the Company would be able to repurchase all of its debt at these levels. The difference between the fair value and carrying value of the long-term debt is driven primarily by trends in the financial markets.

#### ***Senior Secured Credit Facility***

In March 2017, ATI entered into an amendment with the term loan lenders under its Senior Secured Credit Facility to lower the applicable margins on the Term B-3 Loan by 0.5%. The amendment also eliminated the minimum LIBOR floor and reduced the minimum floor applicable to the base rate from 1.75% to 1.00% on the Term B-3 Loan. The March 2017 amendment was treated as a modification to the Senior Secured Credit Facility under GAAP, and thus the Company recorded \$1 million as new deferred financing fees.

In September 2017, ATI entered into a joinder agreement with the lenders under its Senior Secured Credit Facility to increase the available commitments under the Revolving Credit Facility from \$450 million to \$550 million. The joinder agreement was treated as a modification to the Revolving Credit Facility under GAAP.

In March 2018, ATI entered into an amendment with the term loan lenders under its Senior Secured Credit Facility to lower the applicable margins on the Term B-3 Loan by 0.25%. The March 2018 amendment was treated as a modification to the Senior Secured Credit Facility under GAAP, and thus the Company recorded \$1 million as new deferred financing fees.

The Senior Secured Credit Facility is collateralized by a lien on substantially all assets of the Company including all of ATI's capital stock and all of the capital stock or other equity interest held by the Company, ATI and each of the Company's existing and future U.S. subsidiary guarantors (subject to certain limitations for equity interests of foreign subsidiaries and other exceptions set forth in the terms of the Senior Secured Credit Facility). Interest on the Term B-3 Loan, as of September 30, 2018, is either (a) 1.75% over the LIBOR or (b) 0.75% over the greater of the prime lending rate as quoted by the administrative agent and the federal funds effective rate published by the Federal Reserve Bank of New York plus 0.5%, provided that neither is below 1.00%. As of September 30, 2018, the Company elected to pay the lowest all-in rate of LIBOR plus the applicable margin, or 3.97%, on the Term B-3 Loan. The Senior Secured Credit Facility requires minimum quarterly principal payments on the Term B-3 Loan as well as prepayments from certain net cash proceeds of non-ordinary course asset sales and casualty and condemnation events and from a percentage of excess cash flow, if applicable. The minimum required quarterly principal payment on the Term B-3 Loan through its maturity date of September 2022 is \$3 million; however, the Company made voluntary prepayments of the required quarterly principal payments of \$25 million in May 2018. As of September 30, 2018, there were no payments required for certain net cash proceeds of non-ordinary course asset sales and casualty and condemnation events. The remaining principal balance is due upon maturity.

The Senior Secured Credit Facility also provides a Revolving Credit Facility, net of an allowance for up to \$75 million in outstanding letters of credit commitments. As of September 30, 2018, the Company had \$533 million available under the Revolving Credit Facility, net of \$17 million in letters of credit. Revolving Credit Facility borrowings bear interest at a variable base rate plus an applicable margin based on the Company's total leverage ratio. Interest on the Revolving Credit Facility is either (a) 1.75% over the LIBOR or (b) 0.75% over the greater of the prime lending rate in effect on such day and the federal funds effective rate published by the Federal Reserve Bank of New York plus 0.5%, provided that neither is below 1.75%. In addition, there is an annual commitment fee, based on the Company's total leverage ratio, on the average unused revolving credit borrowings available under the Revolving Credit Facility. Revolving Credit Facility borrowings are payable at the option of the Company throughout the term of the Senior Secured Credit Facility with the balance due in September 2021.

The Senior Secured Credit Facility requires the Company to maintain a specified maximum total senior secured leverage ratio of 5.50x when revolving loan commitments remain outstanding on the Revolving Credit Facility at the end of a fiscal quarter. As of September 30, 2018, the Company had no amounts outstanding under the Revolving Credit Facility; however, the Company would have been in compliance with the maximum total senior secured leverage ratio, achieving a 0.86x ratio. Additionally, within the terms of the Senior Secured Credit Facility, a senior secured leverage ratio at or below 4.00x results in the elimination of excess cash flow payments on the Senior Secured Credit Facility for the applicable year. The Senior Secured Credit Facility also provides certain financial incentives based on our total leverage ratio. A total leverage ratio at or below 4.00x results in a 25 basis point reduction to the applicable margin on the Revolving Credit Facility, and a total leverage ratio at or below 3.50x results in a 12.5 basis point reduction to the Revolving Credit Facility commitment fee and an additional 25 basis point reduction to the applicable margin on the Revolving Credit Facility. These reductions remain in effect as long as the Company achieves a total leverage ratio at or below the related threshold. As of September 30, 2018, the Company's total leverage ratio was 2.16x.

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In addition, the Senior Secured Credit Facility, among other things, includes customary restrictions (subject to certain exceptions) on the Company's ability to incur certain indebtedness, grant certain liens, make certain investments, declare or pay certain dividends, or repurchase shares of the Company's common stock. As of September 30, 2018, the Company was in compliance with all covenants under the Senior Secured Credit Facility.

**5.0% Senior Notes**

The 5.0% Senior Notes are unsecured and are guaranteed by each of ATI's domestic subsidiaries that is a borrower under or guarantees the Senior Secured Credit Facility and are unconditionally guaranteed, jointly and severally, by any of ATI's future domestic subsidiaries that are borrowers under or guarantee the Senior Secured Credit Facility. None of ATI's domestic subsidiaries currently guarantee its obligations under the Senior Secured Credit Facility, and therefore none of ATI's domestic subsidiaries currently guarantee the 5.0% Senior Notes. The indenture governing the 5.0% Senior Notes contains negative covenants restricting or limiting the Company's ability to, among other things: incur or guarantee additional indebtedness, incur liens, pay dividends on, redeem or repurchase the Company's capital stock, make certain investments, permit payment or dividend restrictions on certain of the Company's subsidiaries, sell assets, engage in certain transactions with affiliates, and consolidate or merge or sell all or substantially all of the Company's assets. As of September 30, 2018, the Company was in compliance with all covenants under the indenture governing the 5.0% Senior Notes.

**4.75% Senior Notes**

The 4.75% Senior Notes are unsecured and are guaranteed by each of ATI's domestic subsidiaries that is a borrower under or guarantees the Senior Secured Credit Facility and are unconditionally guaranteed, jointly and severally, by any of ATI's future domestic subsidiaries that are borrowers under or guarantee the Senior Secured Credit Facility. None of ATI's domestic subsidiaries currently guarantee its obligations under the Senior Secured Credit Facility, and therefore none of ATI's domestic subsidiaries currently guarantee the 4.75% Senior Notes. The indenture governing the 4.75% Senior Notes contains negative covenants restricting or limiting the Company's ability to, among other things: incur or guarantee additional indebtedness, incur liens, pay dividends on, redeem or repurchase the Company's capital stock, make certain investments, permit payment or dividend restrictions on certain of the Company's subsidiaries, sell assets, engage in certain transactions with affiliates, and consolidate or merge or sell all or substantially all of the Company's assets. As of September 30, 2018, the Company was in compliance with all covenants under the indenture governing the 4.75% Senior Notes.

**NOTE H. DERIVATIVES**

The Company is subject to interest rate risk related to the Senior Secured Credit Facility and enters into interest rate swaps that are based on the LIBOR to manage a portion of this exposure. The Company is also exposed to financial risk from volatility in commodity prices and manages this risk through the use of commodity swaps, when appropriate. The derivative instruments are not for speculative purposes and are designated either as cash flow hedges or economic hedges.

The Company holds interest rate swaps designated as cash flow hedges that qualify for hedge accounting under the hypothetical derivative method. Fair value adjustments are recorded as a component of accumulated other comprehensive loss ("AOCL") in the Condensed Consolidated Balance Sheets. Balances in AOCL are reclassified to other comprehensive income when transactions related to the underlying risk are settled. As of September 30, 2018, the Company held interest rate swaps effective from September 2019 to September 2022 with notional values totaling \$250 million and a weighted average LIBOR fixed rate of 3.01% and interest rate swaps effective from September 2019 to September 2025 with notional values totaling \$250 million and a weighted average LIBOR fixed rate of 3.04%. See NOTE F "Fair Value of Financial Instruments" for information regarding the fair value of the Company's interest rate swaps.

The following tabular disclosures further describe the Company's interest rate derivatives qualifying and designated for hedge accounting and their impact on the financial condition of the Company (dollars in millions):

	September 30, 2018	
	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments:		
Interest rate swaps	Other non-current assets	\$ 2
Total derivatives designated as hedging instruments		\$ 2

The balance of derivative gains recorded in AOCL as of September 30, 2018 was \$2 million. See NOTE N "Accumulated Other Comprehensive Loss" for information regarding activity recorded as a component of AOCL during the three and nine months ended September 30, 2018. The Company had no derivative gains recorded in AOCL expected to be reclassified to other comprehensive income within the next twelve months as of September 30, 2018.

**NOTE I. PRODUCT WARRANTY LIABILITIES**

As of September 30, 2018, current and non-current product warranty liabilities were \$26 million and \$41 million, respectively. As of September 30, 2017, current and non-current product warranty liabilities were \$22 million and \$27 million, respectively.

Product warranty liability activities consist of the following (dollars in millions):

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Beginning balance	\$ 65	\$ 55	\$ 55	\$ 63
Payments	(6)	(8)	(25)	(23)
Increase in liability (warranty issued during period)	9	4	30	13
Net adjustments to liability	(1)	(2)	7	(4)
Ending balance	<u>\$ 67</u>	<u>\$ 49</u>	<u>\$ 67</u>	<u>\$ 49</u>

**NOTE J. DEFERRED REVENUE**

As of September 30, 2018, current and non-current deferred revenue was \$35 million and \$89 million, respectively. As of September 30, 2017, current and non-current deferred revenue was \$33 million and \$75 million, respectively.

Deferred revenue activity consists of the following (dollars in millions):

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Beginning balance	\$ 125	\$ 96	\$ 110	\$ 94
Increases	11	21	44	35
Revenue earned	(12)	(9)	(30)	(21)
Ending balance	<u>\$ 124</u>	<u>\$ 108</u>	<u>\$ 124</u>	<u>\$ 108</u>

Deferred revenue recorded in current and non-current liabilities related to ETC contracts as of September 30, 2018 was \$30 million and \$73 million, respectively. Deferred revenue recorded in current and non-current liabilities related to ETC contracts as of September 30, 2017 was \$29 million and \$70 million, respectively.

**NOTE K. OTHER CURRENT LIABILITIES**

Other current liabilities consist of the following (dollars in millions):

	As of September 30, 2018	As of December 31, 2017
Payroll and related costs	\$ 65	\$ 73
Accrued interest payable	36	19
Sales allowances	34	34
Vendor buyback obligation	16	14
Defense price reduction reserve	9	9
Taxes payable	8	10
UAW Local 933 retirement incentive	5	—
Non-trade payables	3	8
Other accruals	13	16
Total	<u>\$ 189</u>	<u>\$ 183</u>

**NOTE L. EMPLOYEE BENEFIT PLANS**

Components of net periodic benefit cost (credit) consist of the following (dollars in millions):

	Pension Plans		Post-retirement Benefits	
	Three months ended September 30,		Three months ended September 30,	
	2018	2017	2018	2017
Net periodic benefit cost:				
Service cost	\$ 3	\$ 3	\$ —	\$ —
Interest cost	2	1	1	2
Expected return on assets	(2)	(1)	—	—
Prior service cost	—	—	(3)	(1)
Net periodic benefit cost (credit)	\$ 3	\$ 3	\$ (2)	\$ 1

  

	Pension Plans		Post-retirement Benefits	
	Nine months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Net periodic benefit cost:				
Service cost	\$ 9	\$ 9	\$ 1	\$ 1
Interest cost	5	4	3	5
Expected return on assets	(6)	(5)	—	—
Prior service cost	—	—	(10)	(3)
Net periodic benefit cost (credit)	\$ 8	\$ 8	\$ (6)	\$ 3

The components of net periodic benefit costs other than the service cost component are included in Other income (expense), net in the Condensed Consolidated Statements of Comprehensive Income.

**NOTE M. INCOME TAXES**

For the three and nine months ended September 30, 2018, the Company recorded total tax expense of \$51 million and \$139 million, respectively. The effective tax rate for the three and nine months ended September 30, 2018 was 23% and 22%, respectively. For the three and nine months ended September 30, 2017, the Company recorded total tax expense of \$59 million and \$154 million, respectively. The effective tax rate for both the three and nine months ended September 30, 2017 was 35%. The decrease in the effective tax rate was principally driven by the U.S. Tax Cuts and Jobs Act enacted into law in 2017.

In 2017, the SEC issued Staff Accounting Bulletin No. 118 (“SAB 118”), which provides guidance on accounting for the tax effects of the U.S. Tax Cuts and Jobs Act. The Company recognized the income tax effects of the U.S. Tax Cuts and Jobs Act for the year ended December 31, 2017, the reporting period in which the U.S. Tax Cuts and Jobs Act was signed into law, in accordance with SAB 118. As such, the Company’s financial results reflect the income tax effects of the U.S. Tax Cuts and Jobs Act and provisional amounts for those specific income tax effects of the U.S. Tax Cuts and Jobs Act that could be reasonably estimated. During both the three and nine months ended September 30, 2018, there were no changes made to the provisional amounts recognized in 2017. The Company will continue to analyze the effects of the U.S. Tax Cuts and Jobs Act and any impact on its financial statements will be recorded in the period identified.

The need to establish a valuation allowance against the deferred tax assets is assessed periodically based on a more-likely-than-not realization threshold, in accordance with authoritative accounting guidance. Appropriate consideration is given to all positive and negative evidence related to that realization. This assessment considers, among other matters, the nature, frequency and severity of recent losses, forecasts of future profitability, the duration of statutory carry-forward periods, experience with tax attributes expiring unused, and tax planning alternatives. The weight given to these considerations depends upon the degree to which they can be objectively verified.

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The Company continues to provide for a valuation allowance on certain of its foreign deferred tax assets. The Company has determined, based on the evaluation of both objective and subjective evidence available, that this valuation allowance is necessary and that it is more likely than not that the deferred tax assets are not fully realizable.

In accordance with the FASB's authoritative guidance on accounting for uncertainty in income taxes, the Company has recorded a liability for unrecognized tax benefits related to a 2010 Research & Development Credit as of September 30, 2018 and December 31, 2017. The accounting guidance prescribes a recognition threshold and measurement attributes for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. All of the Company's returns will remain subject to examination by the various taxing authorities for the duration of the applicable statute of limitations (generally three years from the later of the date of filing or the due date of the return).

**NOTE N. ACCUMULATED OTHER COMPREHENSIVE LOSS**

The following tables reconcile changes in AOCL by component (net of tax, dollars in millions):

	Three months ended				
	Available-for-sale securities	Defined benefit pension items	Derivatives designated for hedge accounting	Foreign currency items	Total
AOCL as of June 30, 2017	\$ (8)	\$ (19)	\$ —	\$ (30)	\$ (57)
Other comprehensive (loss) income before reclassifications	(1)	—	—	6	5
Amounts reclassified from AOCL	—	(1)	—	—	(1)
Income tax	1	—	—	—	1
Net current period other comprehensive (loss) income	\$ —	\$ (1)	\$ —	\$ 6	\$ 5
AOCL as of September 30, 2017	\$ (8)	\$ (20)	\$ —	\$ (24)	\$ (52)
AOCL as of June 30, 2018	\$ —	\$ 3	\$ (2)	\$ (28)	\$ (27)
Other comprehensive income before reclassifications	—	—	4	—	4
Amounts reclassified from AOCL	—	(3)	—	—	(3)
Income tax	—	—	—	—	—
Net current period other comprehensive (loss) income	\$ —	\$ (3)	\$ 4	\$ —	\$ 1
AOCL as of September 30, 2018	\$ —	\$ —	\$ 2	\$ (28)	\$ (26)

	Nine months ended				
	Available-for-sale securities	Defined benefit pension items	Derivatives designated for hedge accounting	Foreign currency items	Total
AOCL as of December 31, 2016	\$ (7)	\$ (18)	\$ —	\$ (38)	\$ (63)
Other comprehensive (loss) income before reclassifications	(2)	—	—	14	12
Amounts reclassified from AOCL	—	(3)	—	—	(3)
Income tax	1	1	—	—	2
Net current period other comprehensive (loss) income	\$ (1)	\$ (2)	\$ —	\$ 14	\$ 11
AOCL as of September 30, 2017	\$ (8)	\$ (20)	\$ —	\$ (24)	\$ (52)
AOCL as of December 31, 2017	\$ —	\$ 8	\$ —	\$ (23)	\$ (15)
Other comprehensive income (loss) before reclassifications	—	—	2	(5)	(3)
Amounts reclassified from AOCL	—	(10)	—	—	(10)
Income tax	—	2	—	—	2
Net current period other comprehensive (loss) income	\$ —	\$ (8)	\$ 2	\$ (5)	\$ (11)
AOCL as of September 30, 2018	\$ —	\$ —	\$ 2	\$ (28)	\$ (26)

AOCL Components	Amounts reclassified from AOCL		Affected line item in the Condensed Consolidated Statements of Comprehensive Income
	Three months ended September 30, 2018	Three months ended September 30, 2017	
Amortization of benefit items:			
Prior service cost	\$ 3	\$ 1	Cost of sales
	—	—	Selling, general and administrative
Total reclassifications, before tax	\$ 3	\$ 1	Income before income taxes
Income tax	—	—	Income tax expense
Total reclassifications, net of tax	\$ 3	\$ 1	

AOCL Components	Amounts reclassified from AOCL		Affected line item in the Condensed Consolidated Statements of Comprehensive Income
	Nine months ended September 30, 2018	Nine months ended September 30, 2017	
Amortization of benefit items:			
Prior service cost	\$ 9	\$ 3	Cost of sales
	1	—	Selling, general and administrative
Total reclassifications, before tax	\$ 10	\$ 3	Income before income taxes
Income tax	(2)	(1)	Income tax expense
Total reclassifications, net of tax	\$ 8	\$ 2	

Prior service cost is included in the computation of the Company's net periodic benefit cost. See NOTE L, "Employee Benefit Plans" for additional details.

**NOTE O. COMMITMENTS AND CONTINGENCIES*****Environmental Matters***

The Company has an agreement with the Environmental Protection Agency to perform remedial activities at the Company's Indianapolis, Indiana manufacturing facilities related to historical soil and groundwater contamination. As of September 30, 2018, the Company had a liability recorded in the amount of \$13 million.

***Claims, Disputes, and Litigation***

The Company is party to various legal actions and administrative proceedings and subject to various claims arising in the ordinary course of business. These proceedings primarily involve commercial claims, product liability claims, personal injury claims and workers' compensation claims. The Company believes that the ultimate liability, if any, in excess of amounts already provided for in the condensed consolidated financial statements or covered by insurance on the disposition of these matters will not have a material adverse effect on the financial position, results of operations or cash flows of the Company.

**NOTE P. EARNINGS PER SHARE**

The Company presents both basic and diluted earnings per share ("EPS") amounts. Basic EPS is calculated by dividing net income by the weighted average number of common shares outstanding during the reporting period. Diluted EPS is calculated by dividing net income by the weighted average number of common shares and common equivalent shares outstanding during the reporting period that are calculated using the treasury stock method for stock-based awards. The treasury stock method assumes that the Company uses the proceeds from the exercise of awards to repurchase common stock at the average market price during the period. The assumed proceeds under the treasury stock method include the purchase price that the grantee will pay in the future and compensation cost for future service that the Company has not yet recognized. For the three and nine months ended both September 30, 2018 and September 30, 2017, there were no outstanding stock options excluded from the diluted EPS calculation because they were anti-dilutive.

The following table reconciles the numerators and denominators used to calculate basic EPS and diluted EPS (in millions, except per share data):

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Net income	\$ 167	\$ 111	\$ 492	\$ 289
Weighted average shares of common stock outstanding	130	146	135	152
Dilutive effect of stock-based awards	1	1	—	1
Diluted weighted average shares of common stock outstanding	131	147	135	153
Basic earnings per share attributable to common stockholders	\$ 1.28	\$ 0.75	\$ 3.66	\$ 1.91
Diluted earnings per share attributable to common stockholders	\$ 1.27	\$ 0.75	\$ 3.64	\$ 1.90

**NOTE Q. COMMON STOCK**

The Company's current stock repurchase program was announced on November 14, 2016 when the Board of Directors authorized the Company to repurchase up to \$1,000 million of its common stock on the open market or through privately negotiated transactions through December 31, 2019. On November 8, 2017, the Board of Directors authorized the Company to repurchase an additional \$500 million of its common stock, and on July 30, 2018, the Board of Directors authorized the Company to repurchase an additional \$500 million of its common stock, bringing the total amount authorized under the current stock repurchase program to \$2,000 million. Also on July 30, 2018, the Board of Directors removed the termination date of the stock repurchase program. The timing and amount of stock purchases are subject to market conditions and corporate needs. This stock repurchase program may be modified, suspended or discontinued at any time at the Company's discretion. During the three and nine months ended September 30, 2018, the Company repurchased \$86 million and \$456 million, respectively, of its common stock under the repurchase program, leaving \$598 million of authorized repurchases remaining under the current stock repurchase program as of September 30, 2018.

**NOTE R. CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS**

***Repurchase of Common Stock held by ValueAct Capital Master Fund***

On February 3, 2017, the Company entered into a stock repurchase agreement with ValueAct Capital Master Fund, L.P., a related party, to repurchase 10,525,204 shares of the Company's common stock for approximately \$363 million. The shares were repurchased under the stock repurchase program approved by the Board of Directors in November 2016. The purchase closed on February 8, 2017 and was funded with cash on hand and borrowings under the Revolving Credit Facility. The shares were subsequently retired.

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

The following discussion and analysis is intended to help the reader understand our business, financial condition, results of operations, liquidity and capital resources. You should read this discussion in conjunction with our condensed consolidated interim financial statements and the related notes contained elsewhere in this Quarterly Report on Form 10-Q.

The statements in this discussion regarding industry trends, our expectations regarding our future performance, liquidity and capital resources and other non-historical statements are forward-looking statements. These forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to, the risks and uncertainties described in "Cautionary Note Regarding Forward-Looking Statements" and Part II, Item 1A "Risk Factors" below. Our actual results may differ materially from those contained in or implied by any forward-looking statements.

**Overview**

Allison Transmission Holdings, Inc. and its subsidiaries ("Allison", "our" or "we") design and manufacture commercial and defense fully automatic transmissions. The business was founded in 1915 and has been headquartered in Indianapolis, Indiana since inception. Allison was an operating unit of General Motors Corporation from 1929 until 2007, when Allison once again became a stand-alone company. In March 2012, Allison began trading on the New York Stock Exchange under the symbol, "ALSN".

We have approximately 2,700 employees and 13 different transmission product lines. Although approximately 79% of revenues were generated in North America in 2017, we have a global presence by serving customers in Europe, Asia, South America and Africa. We serve customers through a network of approximately 1,400 independent distributor and dealer locations worldwide.

**Trends Impacting Our Business**

Our net sales are driven by commercial vehicle production, which tends to be highly correlated to macroeconomic conditions. In 2018, we expect increased demand for global on-highway products and global off-highway products and price increases on certain products.

**Third Quarter Net Sales by End Market (dollars in millions)**

End Market	Q3 2018 Net Sales	Q3 2017 Net Sales	% Variance
North America On-Highway*	\$ 332	\$ 301	10 %
North America Off-Highway	12	17	(29)%
Defense	42	35	20 %
Outside North America On-Highway	96	89	8 %
Outside North America Off-Highway	46	14	229 %
Service Parts, Support Equipment and Other	164	139	18 %
Total Net Sales	\$ 692	\$ 595	16 %

\* North America On-Highway end market net sales are inclusive of net sales for North America Electric Hybrid-Propulsion Systems for Transit Bus

North America On-Highway end market net sales were up 10% for the third quarter 2018 compared to the third quarter 2017, principally driven by higher demand for Rugged Duty Series models.

North America Off-Highway end market net sales were down \$5 million for the third quarter 2018 compared to the third quarter 2017, principally driven by lower demand from hydraulic fracturing applications.

Defense end market net sales were up 20% for the third quarter 2018 compared to the third quarter 2017, principally driven by higher Tracked and Wheeled demand.

Outside North America On-Highway end market net sales were up 8% for the third quarter 2018 compared to the third quarter 2017, principally driven by higher demand in Asia.

Outside North America Off-Highway end market net sales were up \$32 million for the third quarter 2018 compared to the third quarter 2017, principally driven by higher demand in the energy, mining and construction sectors.

Service Parts, Support Equipment and Other end market net sales were up 18% for the third quarter 2018 compared to the third quarter 2017, principally driven by higher demand for North America service parts and global support equipment.

## **Key Components of our Results of Operations**

### *Net sales*

We generate our net sales primarily from the sale of transmissions, transmission parts, support equipment, defense kits, engineering services, royalties and extended transmission coverage to a wide array of original equipment manufacturers, distributors and the U.S. and foreign governments. Sales are recorded net of provisions for customer allowances and other rebates. Engineering services are recorded as net sales in accordance with the terms of the contract. The associated costs are recorded in cost of sales. We also have royalty agreements with third parties that provide net sales as a result of joint efforts in developing marketable products.

### *Cost of sales*

Our primary components of cost of sales are purchased parts, the overhead expense related to our manufacturing operations and direct labor associated with the manufacture and assembly of transmissions and parts. For the nine months ended September 30, 2018, direct material costs were approximately 71%, overhead costs were approximately 23%, and direct labor costs were approximately 6% of total cost of sales. We are subject to changes in our cost of sales caused by movements in underlying commodity prices. We seek to hedge against this risk by using long-term supply agreements (“LTSAs”), as appropriate. See Part I, Item 3 “Quantitative and Qualitative Disclosures about Market Risk—Commodity Price Risk” included below.

### *Selling, general and administrative*

The principal components of our selling, general and administrative expenses are salaries and benefits for our office personnel, advertising and promotional expenses, product warranty expense, expenses relating to certain information technology systems and amortization of our intangible assets.

### *Engineering — research and development*

We incur costs in connection with research and development programs that are expected to contribute to future earnings. Such costs are expensed as incurred.

### *Non-GAAP Financial Measures*

We use Adjusted Earnings before Interest, Taxes, Depreciation, and Amortization (“EBITDA”) and Adjusted EBITDA as a percent of net sales to measure our operating profitability. We believe that Adjusted EBITDA and Adjusted EBITDA as a percent of net sales provide management, investors and creditors with useful measures of the operational results of our business and increase the period-to-period comparability of our operating profitability and comparability with other companies. Adjusted EBITDA as a percent of net sales is also used in the calculation of management’s incentive compensation program. The most directly comparable U.S. generally accepted accounting principles (“GAAP”) measure to Adjusted EBITDA and Adjusted EBITDA as a percent of net sales is Net income and Net income as a percent of net sales, respectively. Adjusted EBITDA is calculated as the earnings before interest expense, income tax expense, amortization of intangible assets, depreciation of property, plant and equipment and other adjustments as defined by Allison Transmission, Inc.’s (“ATI”), our wholly-owned subsidiary, Term B-3 Loan due 2022 (“Term B-3 Loan”, and together with the revolving portion of ATI’s senior secured credit facility (“Revolving Credit Facility”), defined as the “Senior Secured Credit Facility”). Adjusted EBITDA as a percent of net sales is calculated as Adjusted EBITDA divided by net sales.

We use Adjusted free cash flow to evaluate the amount of cash generated by our business that, after the capital investment needed to maintain and grow our business and certain mandatory debt service requirements, can be used for repayment of debt, stockholder distributions and strategic opportunities, including investing in our business. We believe that Adjusted free cash flow enhances the understanding of the cash flows of our business for management, investors and creditors. Adjusted free cash flow is also used in the calculation of management’s incentive compensation program. The most directly comparable GAAP measure to Adjusted free cash flow is Net cash provided by operating activities. Adjusted free cash flow is calculated as Net cash provided by operating activities after additions of long-lived assets.

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The following is a reconciliation of Net income and Net income as a percent of net sales to Adjusted EBITDA and Adjusted EBITDA as a percent of net sales and a reconciliation of Net cash provided by operating activities to Adjusted free cash flow:

(unaudited, dollars in millions)	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
<b>Net income (GAAP)</b>	\$ 167	\$ 111	\$ 492	\$ 289
plus:				
Income tax expense	51	59	139	154
Interest expense, net	30	26	90	78
Amortization of intangible assets	22	22	66	67
Depreciation of property, plant and equipment	19	21	58	60
Stock-based compensation expense (a)	3	2	9	8
UAW Local 933 retirement incentive (b)	—	—	7	—
Unrealized loss on foreign exchange (c)	3	2	6	1
Technology-related investment expense (d)	—	—	—	3
Dual power inverter module units extended coverage (e)	—	(2)	—	(2)
<b>Adjusted EBITDA (Non-GAAP)</b>	\$ 295	\$ 241	\$ 867	\$ 658
<b>Net sales (GAAP)</b>	\$ 692	\$ 595	\$ 2,066	\$ 1,674
<b>Net income as a percent of net sales (GAAP)</b>	24.1%	18.7%	23.8%	17.3%
<b>Adjusted EBITDA as a percent of net sales (Non-GAAP)</b>	42.6%	40.5%	42.0%	39.3%
<b>Net cash provided by operating activities (GAAP)</b>	\$ 239	\$ 215	\$ 605	\$ 492
Deductions to reconcile to Adjusted free cash flow:				
Additions of long-lived assets	(23)	(20)	(52)	(40)
<b>Adjusted free cash flow (Non-GAAP)</b>	\$ 216	\$ 195	\$ 553	\$ 452

- (a) Represents employee stock compensation expense (recorded in Cost of sales, Selling, general and administrative, and Engineering - research and development).
- (b) Represents a charge (recorded in Cost of sales) related to a retirement incentive program for certain employees represented by the International Union, United Automobile, Aerospace and Agricultural Implementation Workers of America ("UAW") pursuant to the UAW Local 933 collective bargaining agreement effective through November 2023.
- (c) Represents losses (recorded in Other income (expense), net) on intercompany financing transactions related to investments in plant assets for our India facility.
- (d) Represents a charge (recorded in Other income (expense), net) for investments in co-development agreements to expand our position in transmission technologies.
- (e) Represents an adjustment (recorded in Selling, general and administrative) associated with the Dual Power Inverter Module ("DPIM") extended coverage program liability. The DPIM liability will continue to be reviewed for any changes in estimates as additional claims data and field information become available.

**Results of Operations****Comparison of three months ended September 30, 2018 and 2017**

The following table sets forth certain financial information for the three months ended September 30, 2018 and 2017. The following table and discussion should be read in conjunction with the information contained in our condensed consolidated financial statements and the notes thereto included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

<i>(unaudited, dollars in millions)</i>	Three months ended September 30,			
	2018	% of net sales	2017	% of net sales
Net sales	\$ 692	100 %	\$ 595	100 %
Cost of sales	324	47	293	49
Gross profit	368	53	302	51
Operating expenses:				
Selling, general and administrative	89	13	78	13
Engineering — research and development	33	5	26	5
Total operating expenses	122	18	104	18
Operating income	246	35	198	33
Interest expense, net	(30)	(4)	(26)	(4)
Other income (expense), net	2	—	(2)	—
Income before income taxes	218	31	170	29
Income tax expense	(51)	(7)	(59)	(10)
Net income	\$ 167	24 %	\$ 111	19 %

**Net sales**

Net sales for the quarter ended September 30, 2018 were \$692 million compared to \$595 million for the quarter ended September 30, 2017, an increase of 16%. The increase was principally driven by a \$32 million increase in net sales in the Outside North America Off-Highway end market principally driven by higher demand in the energy, mining and construction sectors; a \$31 million, or 10%, increase in net sales in the North America On-Highway end market principally driven by higher demand for Rugged Duty Series models; a \$25 million, or 18%, increase in net sales in the Service Parts, Support Equipment and Other end market principally driven by higher demand for North America service parts and Global support equipment; a \$7 million, or 8%, increase in net sales in the Outside North America On-Highway end market principally driven by higher demand in Asia; and a \$7 million, or 20%, increase in net sales in the Defense end market principally driven by higher Tracked and Wheeled demand, partially offset by a \$5 million, or 29%, decrease in net sales in the North America Off-Highway end market principally driven by lower demand from hydraulic fracturing applications.

**Cost of sales**

Cost of sales for the quarter ended September 30, 2018 was \$324 million compared to \$293 million for the quarter ended September 30, 2017, an increase of 11%. The increase was principally driven by increased direct material costs and manufacturing expenses commensurate with increased net sales, partially offset by favorable material costs.

**Gross profit**

Gross profit for the quarter ended September 30, 2018 was \$368 million compared to \$302 million for the quarter ended September 30, 2017, an increase of 22%. The increase was principally driven by \$56 million related to increased net sales, \$11 million of price increases on certain products and \$2 million of favorable material costs, partially offset by \$3 million of higher manufacturing expenses commensurate with increased net sales. Gross profit as a percent of net sales for the three months ended September 30, 2018 increased 240 basis points compared to the same period in 2017 principally driven by increased net sales, price increases on certain products and favorable material costs.

***Selling, general and administrative***

Selling, general and administrative expenses for the quarter ended September 30, 2018 were \$89 million compared to \$78 million for the quarter ended September 30, 2017, an increase of 14%. The increase was principally driven by \$4 million of higher product warranty expense commensurate with increased net sales, \$3 million of favorable DPIM extended coverage adjustments in 2017 that did not recur in 2018, \$2 million of favorable 2017 product warranty adjustments that did not recur in 2018, increased commercial activities spending and \$1 million of higher stock compensation expense, partially offset by \$1 million of favorable product warranty adjustments.

***Engineering — research and development***

Engineering expenses for the quarter ended September 30, 2018 were \$33 million compared to \$26 million for the quarter ended September 30, 2017, an increase of 27%. The increase was principally driven by increased product initiatives spending.

***Interest expense, net***

Interest expense, net for the quarter ended September 30, 2018 was \$30 million compared to \$26 million for the quarter ended September 30, 2017, an increase of 15%. The increase was principally driven by \$4 million of higher interest expense for ATI's 4.75% Senior Notes due October 2027 ("4.75% Senior Notes") that were issued in September 2017.

***Other income (expense), net***

Other income (expense), net for the quarter ended September 30, 2018 was \$2 million compared to (\$2) million for the quarter ended September 30, 2017. The change was principally driven by \$3 million of credits related to post-retirement benefit plan amendments.

***Income tax expense***

Income tax expense for the three months ended September 30, 2018 was \$51 million, resulting in an effective tax rate of 23%, compared to \$59 million of income tax expense and an effective tax rate of 35% for the three months ended September 30, 2017. The decrease in the effective tax rate was principally driven by the U.S. Tax Cuts and Jobs Act enacted into law in December 2017.

**Comparison of nine months ended September 30, 2018 and 2017**

The following table sets forth certain financial information for the nine months ended September 30, 2018 and 2017. The following table and discussion should be read in conjunction with the information contained in our condensed consolidated financial statements and the notes thereto included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

<i>(unaudited, dollars in millions)</i>	Nine months ended September 30,			
	2018	% of net sales	2017	% of net sales
Net sales	\$ 2,066	100 %	\$ 1,674	100 %
Cost of sales	982	48	831	50
Gross profit	1,084	52	843	50
Operating expenses:				
Selling, general and administrative	274	13	245	15
Engineering — research and development	94	4	74	4
Total operating expenses	368	17	319	19
Operating income	716	35	524	31
Interest expense, net	(90)	(4)	(78)	(5)
Other income (expense), net	5	—	(3)	—
Income before income taxes	631	31	443	26
Income tax expense	(139)	(7)	(154)	(9)
Net income	\$ 492	24 %	\$ 289	17 %

**Net sales**

Net sales for the nine months ended September 30, 2018 were \$2,066 million compared to \$1,674 million for the nine months ended September 30, 2017, an increase of 23%. The increase was principally driven by a \$124 million, or 14%, increase in net sales in the North America On-Highway end market principally driven by higher demand for Rugged Duty Series models; a \$91 million, or 23%, increase in net sales in the Service Parts, Support Equipment and Other end market principally driven by higher demand for Global service parts and support equipment; a \$53 million increase in net sales in the North America Off-Highway end market principally driven by higher demand from hydraulic fracturing applications; a \$52 million increase in net sales in the Outside North America Off-Highway end market principally driven by higher demand in the energy, mining and construction sectors; a \$42 million, or 17%, increase in net sales in the Outside North America On-Highway end market principally driven by higher demand in Asia and Europe; and a \$30 million, or 33%, increase in net sales in the Defense end market principally driven by higher Tracked and Wheeled demand.

**Cost of sales**

Cost of sales for the nine months ended September 30, 2018 was \$982 million compared to \$831 million for the nine months ended September 30, 2017, an increase of 18%. The increase was principally driven by increased direct material and manufacturing expenses commensurate with increased net sales, expenses of \$7 million related to a retirement incentive program for certain UAW Local 933 employees and unfavorable material costs.

**Gross profit**

Gross profit for the nine months ended September 30, 2018 was \$1,084 million compared to \$843 million for the nine months ended September 30, 2017, an increase of 29%. The increase was principally driven by \$244 million related to increased net sales and \$22 million of price increases on certain products, partially offset by \$15 million of higher manufacturing expenses commensurate with increased net sales, expenses of \$7 million due to a retirement incentive program for certain UAW Local 933 employees, and \$4 million of unfavorable material costs. Gross profit as a percent of net sales for the nine months ended September 30, 2018 increased 210 basis points compared to the same period in 2017 principally driven by increased net sales and price increases on certain products, partially offset by expenses for the retirement incentive program and unfavorable material costs.

***Selling, general and administrative***

Selling, general and administrative expenses for the nine months ended September 30, 2018 were \$274 million compared to \$245 million for the nine months ended September 30, 2017, an increase of 12%. The increase was principally driven by \$17 million of higher product warranty expense commensurate with increased net sales, \$7 million of unfavorable product warranty adjustments, \$4 million of favorable 2017 product warranty adjustments that did not recur in 2018 and increased commercial activities spending, partially offset by \$4 million of lower incentive compensation expense.

***Engineering — research and development***

Engineering expenses for the nine months ended September 30, 2018 were \$94 million compared to \$74 million for the nine months ended September 30, 2017, an increase of 27%. The increase was principally driven by increased product initiatives spending.

***Interest expense, net***

Interest expense, net for the nine months ended September 30, 2018 was \$90 million compared to \$78 million for the nine months ended September 30, 2017, an increase of 15%. The increase was principally driven by \$14 million of higher interest expense for ATI's 4.75% Senior Notes that were issued in September 2017 and \$4 million of higher interest expense on ATI's Term B-3 Loan principally driven by higher interest rates, partially offset by \$4 million of interest expense on revolving loan balances in 2017 that did not recur in 2018 and \$2 million of 2017 interest expense that did not recur in 2018 for our interest rate derivatives that were terminated in December 2017.

***Other income (expense), net***

Other income (expense), net for the nine months ended September 30, 2018 was \$5 million compared to (\$3) million for the nine months ended September 30, 2017. The change was principally driven by \$9 million of credits related to post-retirement benefit plan amendments, \$3 million of 2017 technology-related investment expense for investments in co-development agreements to expand our position in transmission technologies that did not recur in 2018 and \$2 million of favorable foreign exchange, partially offset by \$4 million of unfavorable foreign exchange on intercompany financing and \$1 million of lower gains on commodity hedging.

***Income tax expense***

Income tax expense for the nine months ended September 30, 2018 was \$139 million resulting in an effective tax rate of 22%, compared to \$154 million of income tax expense and an effective tax rate of 35% for the nine months ended September 30, 2017. The decrease in the effective tax rate was principally driven by the U.S. Tax Cuts and Jobs Act enacted into law in December 2017.

### ***Liquidity and Capital Resources***

We generate cash primarily from our operating activities to fund our operating, investing and financing activities. Our principal uses of cash are operating expenses, capital expenditures, debt service, stock repurchases, dividends on common stock and working capital needs. We had total available cash and cash equivalents of \$221 million and \$199 million as of September 30, 2018 and December 31, 2017, respectively. Of the available cash and cash equivalents, \$171 million and \$149 million was deposited in operating accounts as of September 30, 2018 and December 31, 2017, respectively, while \$50 million was invested in U.S. government backed securities as of both September 30, 2018 and December 31, 2017.

As of September 30, 2018, the total of cash and cash equivalents held by foreign subsidiaries was \$52 million, the majority of which was located in Europe and China. We manage our worldwide cash requirements considering available funds among the subsidiaries through which we conduct our business and the cost effectiveness with which those funds can be accessed. As a result, we do not currently anticipate any local liquidity restrictions will preclude us from funding our targeted expectations or operating needs with local resources.

If we distribute our foreign cash balances to the U.S. or to other foreign subsidiaries, we could be required to accrue and pay taxes. As a result of the U.S. Tax Cuts and Jobs Act, we recorded a charge of \$5 million in 2017 for the one-time repatriation tax to be paid to the U.S. Government. We also recorded a deferred tax liability of \$2 million in 2017 for the tax liability associated with the remittance of previously taxed income and unremitted earnings for our subsidiaries located in China.

Our liquidity requirements are significant, primarily due to our debt service requirements. As of September 30, 2018, we had \$1,148 million of indebtedness associated with ATI's Term B-3 Loan, \$1,000 million of indebtedness associated with ATI's 5.0% Senior Notes due 2024 ("5.0% Senior Notes") and \$400 million of indebtedness associated with ATI's 4.75% Senior Notes. The minimum required quarterly principal payment on ATI's Term B-3 Loan through its maturity date of September 2022 is \$3 million; however, we made voluntary prepayments of the required quarterly principal payments of \$25 million in May 2018. There are no required quarterly principal payments on ATI's 5.0% Senior Notes and 4.75% Senior Notes.

Our ability to make payments on and refinance our indebtedness and to fund planned capital expenditures and growth initiatives will depend on our ability to generate cash in the future. This is subject to general economic, financial, competitive, legislative, regulatory and other factors that may be beyond our control. We made no principal payments and \$28 million of principal payments on the Senior Secured Credit Facility during the three and nine months ended September 30, 2018, respectively. We made principal payments of \$293 million and \$424 million on the Senior Secured Credit Facility during the three and nine months ended September 30, 2017, respectively.

The Senior Secured Credit Facility provides for a \$550 million Revolving Credit Facility, net of an allowance for up to \$75 million in outstanding letters of credit commitments. As of September 30, 2018, we had \$533 million available under the Revolving Credit Facility, net of \$17 million in letters of credit. As of September 30, 2018, we had no amounts outstanding under the Revolving Credit Facility. If we have commitments outstanding on the Revolving Credit Facility at the end of a fiscal quarter, the Senior Secured Credit Facility requires us to maintain a specified maximum total senior secured leverage ratio of 5.50x. Additionally, within the terms of the Senior Secured Credit Facility, a senior secured leverage ratio at or below 4.00x results in the elimination of excess cash flow payments on the Senior Secured Credit Facility for the applicable year. As of September 30, 2018, our senior secured leverage ratio was 0.86x. The Senior Secured Credit Facility also provides certain financial incentives based on our total leverage ratio. A total leverage ratio at or below 4.00x results in a 25 basis point reduction to the applicable margin on our Revolving Credit Facility, and a total leverage ratio at or below 3.50x results in a 12.5 basis point reduction to the Revolving Credit Facility commitment fee and an additional 25 basis point reduction to the applicable margin on our Revolving Credit Facility. These reductions remain in effect as long as we achieve a total leverage ratio at or below the related threshold. As of September 30, 2018, our total leverage ratio was 2.16x.

In addition, the Senior Secured Credit Facility includes, among other things, customary restrictions (subject to certain exceptions) on our ability to incur certain indebtedness, grant certain liens, make certain investments, declare or pay certain dividends, and repurchase shares of our common stock. The indentures governing the 5.0% Senior Notes and 4.75% Senior Notes contain negative covenants restricting or limiting our ability to, among other things, incur or guarantee additional indebtedness, incur liens, pay dividends on, redeem or repurchase our capital stock, make certain investments, permit payment or dividend restrictions on certain of our subsidiaries, sell assets, engage in certain transactions with affiliates, and consolidate or merge or sell all or substantially all of our assets. As of September 30, 2018, we are in compliance with all covenants under the Senior Secured Credit Facility and indentures governing the 5.0% Senior Notes and 4.75% Senior Notes.

Our credit ratings are reviewed by Moody's Investors Service ("Moody's") and Fitch Ratings ("Fitch"). Moody's rates our corporate credit at 'Ba2', Term B-3 Loan at 'Baa3', 5.0% Senior Notes at 'Ba3' and 4.75% Senior Notes at 'Ba3'. Fitch rates our corporate credit at 'BB', Term B-3 Loan at 'BB+', 5.0% Senior Notes at 'BB' and 4.75% Senior Notes at 'BB'.

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On November 14, 2016, our Board of Directors authorized us to purchase up to \$1,000 million of our common stock under a stock repurchase program. On November 8, 2017 our Board of Directors increased the authorization by \$500 million, and on July 30, 2018 our Board of Directors increased the authorization by an additional \$500 million, bringing the total amount authorized to \$2,000 million. For the three and nine months ended September 30, 2018, we repurchased \$86 million and \$456 million, respectively, of our common stock under the repurchase program. As of September 30, 2018, we had \$598 million available under the repurchase program.

The following table shows our sources and uses of funds for the nine months ended September 30, 2018 and 2017 (in millions):

<i>Statements of Cash Flows Data</i>	Nine months ended September 30,	
	2018	2017
Cash flows provided by operating activities	\$ 605	\$ 492
Cash flows used for investing activities	\$ (52)	\$ (43)
Cash flows used for financing activities	\$ (529)	\$ (447)

Generally, cash provided by operating activities has been adequate to fund our operations. Due to fluctuations in our cash flows and the growth in our operations, it may be necessary from time to time in the future to borrow under the Senior Secured Credit Facility to meet cash demands. We anticipate cash provided by operating activities, cash and cash equivalents and borrowing capacity under the Senior Secured Credit Facility will be sufficient to meet our cash requirements for the next twelve months.

#### *Cash provided by operating activities*

Operating activities for the nine months ended September 30, 2018 generated \$605 million of cash compared to \$492 million for the nine months ended September 30, 2017. The increase was principally driven by increased gross profit and decreased cash interest expense, partially offset by higher operating working capital requirements, increased product initiatives spending, increased cash income taxes, increased incentive compensation payments and increased defined benefit pension plans funding payments.

#### *Cash used for investing activities*

Investing activities for the nine months ended September 30, 2018 used \$52 million of cash compared to \$43 million for the nine months ended September 30, 2017. The increase was principally driven by an increase of \$12 million in capital expenditures, partially offset by \$3 million of decreased spending on technology related investments. The increase in capital expenditures was principally driven by intra-year movement in the timing of spending related to investments in productivity and replacement programs.

#### *Cash used for financing activities*

Financing activities for the nine months ended September 30, 2018 used \$529 million of cash compared to \$447 million for the nine months ended September 30, 2017. The increase was principally driven by \$400 million of net debt borrowings in 2017 that did not recur in 2018 and \$19 million of increased payments on long-term debt, partially offset by \$322 million of decreased stock repurchases, \$7 million of decreased dividend payments and \$7 million of increased proceeds from stock issued upon the exercise of stock options.

### **Contingencies**

We are a party to various legal actions and administrative proceedings and subject to various claims arising in the ordinary course of business, including those relating to commercial transactions, product liability, personal injury and workers' compensation, safety, health, taxes, environmental and other matters. For more information, see NOTE O, "Commitments and Contingencies" of our condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

### **Critical Accounting Policies and Significant Accounting Estimates**

A discussion of our critical accounting policies and significant accounting estimates is included in Part II, Item 7 "Management's Discussion and Analysis" in our Annual Report on Form 10-K for the year ended December 31, 2017 as filed with the Securities and Exchange Commission on February 15, 2018. The preparation of the condensed consolidated financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of some assets and liabilities and, in some instances, the reported amounts of revenues and expenses during the applicable reporting period. Actual results could differ materially from these estimates. Changes in estimates are recorded in results of operations in the period that the events or circumstances giving rise to such changes occur. Within the context of these critical accounting estimates, we are not currently aware of any reasonably likely events or circumstances that would result in different policies or estimates being reported for the nine months ended September 30, 2018.

### **Off-Balance Sheet Arrangements**

We are not a party to any off-balance sheet arrangements.

### **Recently Issued Accounting Pronouncements**

See NOTE B, "Summary of Significant Accounting Policies" in Part I, Item 1, of this Quarterly Report on Form 10-Q.

### **Cautionary Note Regarding Forward-Looking Statements**

This Quarterly Report on Form 10-Q contains forward-looking statements. The words "believe," "expect," "anticipate," "intend," "estimate" and other expressions that are predictions of or indicate future events and trends and that do not relate to historical matters identify forward-looking statements. You should not place undue reliance on these forward-looking statements. Although forward-looking statements reflect management's good faith beliefs, reliance should not be placed on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements to differ materially from anticipated future results, performance or achievements expressed or implied by such forward-looking statements. Forward-looking statements speak only as of the date the statements are made. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events, changed circumstances or otherwise. These forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to: risks related to our substantial indebtedness; our participation in markets that are competitive; the highly cyclical industries in which certain of our end users operate; uncertainty in the global regulatory and business environments in which we operate; the failure of markets outside North America to increase adoption of fully-automatic transmissions; the concentration of our net sales in our top five customers and the loss of any one of these; our ability to prepare for, respond to and successfully achieve our objectives relating to technological and market developments, competitive threats and changing customer needs; U.S. and foreign defense spending; general economic and industry conditions; increases in cost, disruption of supply or shortage of raw materials or components used in our products; the discovery of defects in our products, resulting in delays in new model launches, recall campaigns and/or increased warranty costs and reduction in future sales or damage to our brand and reputation; risks associated with our international operations, including increased trade protectionism; future reductions or changes in government subsidies for hybrid vehicles and other external factors impacting demand; labor strikes, work stoppages or similar labor disputes, which could significantly disrupt our operations or those of our principal customers; and our intention to pay dividends and repurchase shares of our common stock.

Important factors that could cause actual results to differ materially from our expectations are disclosed in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2017 as filed with the Securities and Exchange Commission on February 15, 2018. All written and oral forward-looking statements attributable to us, or persons acting on our behalf, are expressly qualified in their entirety by these cautionary statements as well as other cautionary statements that are made from time to time in our public communications. You should evaluate all forward-looking statements made in this Quarterly Report on Form 10-Q in the context of these risks and uncertainties.

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**ITEM 3. Quantitative and Qualitative Disclosures About Market Risk**

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Our exposure to market risk consists of changes in interest rates, foreign currency rate fluctuations and movements in commodity prices.

***Interest Rate Risk***

We are subject to interest rate market risk in connection with a portion of our long-term debt. Our principal interest rate exposure relates to outstanding amounts under our Senior Secured Credit Facility. Our Senior Secured Credit Facility provides for variable rate borrowings of up to \$1,681 million including \$533 million under our Revolving Credit Facility, net of \$17 million of letters of credit. A one-eighth percent increase or decrease in assumed interest rates for the Senior Secured Credit Facility, if fully drawn, as of September 30, 2018 would have an impact of approximately \$2 million on interest expense. As of September 30, 2018, we had no outstanding borrowings under our Revolving Credit Facility.

From time to time, we enter into interest rate swap agreements to hedge our variable interest rate debt. As of September 30, 2018, we held interest rate swaps effective from September 2019 to September 2022 with notional values totaling \$250 million and a weighted average LIBOR fixed rate of 3.01% and interest rate swaps effective from September 2019 to September 2025 with notional values totaling \$250 million and a weighted average LIBOR fixed rate of 3.04%.

***Exchange Rate Risk***

While our net sales and costs are denominated primarily in U.S. Dollars, net sales, costs, assets and liabilities are generated in other currencies including Japanese Yen, Euro, Indian Rupee, Brazilian Real, Chinese Yuan Renminbi, Canadian Dollar and Hungarian Forint. The expansion of our business outside North America may further increase the risk that cash flows resulting from these activities may be adversely affected by changes in currency exchange rates.

Assuming current levels of foreign currency transactions, a 10% aggregate increase or decrease in the Japanese Yen, Euro, Indian Rupee and Chinese Yuan Renminbi would correspondingly change our earnings, net of tax, by an estimated \$7 million per year. We believe other exposure to foreign currencies is immaterial.

***Commodity Price Risk***

We are subject to changes in our cost of sales caused by movements in underlying commodity prices. Approximately 70% of our cost of sales consists of purchased components with significant raw material content. A substantial portion of the purchased parts are made of aluminum and steel. The cost of aluminum parts includes an adjustment factor on future purchases for fluctuations in aluminum prices based on accepted industry indices. In addition, a substantial amount of steel-based contracts also include an index-based component. As our costs change, we are able to pass through a portion of the changes in commodity prices to certain of our customers according to our LTSAs. We historically have not entered into long-term purchase contracts related to the purchase of aluminum and steel. We currently hold commodity swaps that are intended to hedge forecasted aluminum purchases. Based on our forecasted demand for 2018 and 2019, as of September 30, 2018, the hedge contracts cover zero and approximately 9% of our aluminum requirements, respectively. We do not hold financial instruments for trading or speculative purposes.

Assuming current levels of commodity purchases, a 10% variation in the price of aluminum and steel would correspondingly change our earnings by approximately \$4 million and \$7 million per year, respectively.

Many of our LTSAs have incorporated a cost-sharing arrangement related to potential future commodity price fluctuations. Our hedging policy is that we hedge our exposure and do not hedge any portion of the customers' exposure. For purposes of the sensitivity analysis above, the impact of these cost sharing arrangements has not been included.

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**ITEM 4. Controls and Procedures**

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**Evaluation of Disclosure Controls and Procedures**

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) as of the end of the period covered by this report. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Based on the evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q were effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

**Changes in Internal Control over Financial Reporting**

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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**PART II. OTHER INFORMATION**

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**Item 1. Legal Proceedings**

From time to time, we are a party to various legal actions in the normal course of our business, including those related to commercial transactions, product liability, personal injury and workers' compensation, safety, health, taxes, environmental and other matters. See NOTE O, "Commitments and Contingencies" in the notes to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

**Item 1A. Risk Factors**

There have been no material changes from our risk factors as previously reported in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2017 as filed with the Securities and Exchange Commission on February 15, 2018.

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

The following table sets forth information related to our repurchases of our common stock on a monthly basis in the three months ended September 30, 2018:

	<b>Total Number of Shares Purchased</b>	<b>Average Price Paid per Share</b>	<b>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs(1)</b>	<b>Approximate Dollar Value of Shares that May Yet Be Purchased Under Plans(1)</b>
July 1 – July 31, 2018	1,586,850	\$ 41.31	1,586,850	\$ 618,642,765
August 1 – August 31, 2018	442,102	\$ 47.34	442,102	\$ 597,715,314
September 1 – September 30, 2018	—	\$ —	—	\$ 597,715,314
Total	<u>2,028,952</u>	\$ 42.62	<u>2,028,952</u>	

(1) These values reflect repurchases made under the stock repurchase program approved by the Board of Directors on November 14, 2016 and the increases approved by the Board of Directors on November 8, 2017 and July 30, 2018, which, in the aggregate, authorized total repurchases of \$2,000 million. The stock repurchase program has no termination date.



**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.

**ALLISON TRANSMISSION HOLDINGS, INC.**

Date: October 30, 2018

By: /s/ David S. Graziosi

Name: David S. Graziosi  
Title: President and Chief Executive Officer  
(Principal Executive Officer)

Date: October 30, 2018

By: /s/ G. Frederick Bohley

Name: G. Frederick Bohley  
Title: Vice President, Chief Financial Officer and Treasurer (Principal  
Financial Officer and Principal Accounting Officer)

**CERTIFICATION PURSUANT TO RULE 13a-14(a)/15d-14(a) OF THE SECURITIES  
EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE  
SARBANES-OXLEY ACT OF 2002**

I, David S. Graziosi, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Allison Transmission 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 (the registrant's fourth fiscal quarter in the case of an annual report) 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.

Dated: October 30, 2018

/s/ David S. Graziosi

Name: David S. Graziosi

Title: President and Chief Executive Officer

(Principal Executive Officer)

**CERTIFICATION PURSUANT TO RULE 13a-14(a)/15d-14(a) OF THE SECURITIES  
EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE  
SARBANES-OXLEY ACT OF 2002**

I, G. Frederick Bohley, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Allison Transmission 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 (the registrant's fourth fiscal quarter in the case of an annual report) 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.

Dated: October 30, 2018

/s/ G. Frederick Bohley

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Name: G. Frederick Bohley

Title: Vice President, Chief Financial Officer and Treasurer  
(Principal Financial Officer)

**CERTIFICATION 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 Allison Transmission Holdings, Inc. (the "Company") on Form 10-Q for the quarter ending September 30, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, David S. Graziosi, President and Chief Executive Officer of the Company, and G. Frederick Bohley, Vice President, Chief Financial Officer and Treasurer of the Company, certify, pursuant to 18 U.S.C. § 1350 as adopted pursuant to § 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 Company.

Dated: October 30, 2018

/s/ David S. Graziosi

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David S. Graziosi  
President and Chief Executive Officer  
(Principal Executive Officer)

Dated: October 30, 2018

/s/ G. Frederick Bohley

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G. Frederick Bohley  
Vice President, Chief Financial Officer and Treasurer  
(Principal Financial Officer)