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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2018

OR

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

For the transition period from ________ to ________

Commission file number 333-211719

ASHLAND GLOBAL HOLDINGS INC.

(a Delaware corporation)
I.R.S. No. 81-2587835

50 E. RiverCenter Boulevard
Covington, Kentucky 41011
Telephone Number (859) 815-3333

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

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

Indicate by check mark 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. (Check One):

Large Accelerated Filer	☑	Accelerated Filer	☐
Non-Accelerated Filer	☐	Smaller Reporting Company	☐
(Do not check if a smaller reporting company.)		Emerging Growth Company	☐

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

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

At June 30, 2018, there were 62,426,191 shares of Registrant’s Common Stock outstanding.

ITEM 1. FINANCIAL STATEMENTS

ASHLAND GLOBAL HOLDINGS INC. AND CONSOLIDATED SUBSIDIARIES
STATEMENTS OF CONSOLIDATED COMPREHENSIVE INCOME (LOSS)

	Three months ended June 30		Nine months ended June 30	
(In millions except per share data - unaudited)	2018	2017	2018	2017
Sales	$ 971	$ 870	$ 2,787	$ 2,380
Cost of sales	681	635	1,993	1,729
Gross profit	290	235	794	651
Selling, general and administrative expense	203	182	537	494
Research and development expense	21	20	64	61
Equity and other income	—	4	7	9
Operating income	66	37	200	105
Net interest and other financing expense	33	51	93	203
Other net periodic benefit income	—	—	1	3
Net loss on acquisitions and divestitures	(2)	(6)	(3)	(7)
Income (loss) from continuing operations before income taxes	31	(20)	105	(102)
Income tax expense (benefit)	(5)	(4)	10	(49)
Income (loss) from continuing operations	36	(16)	95	(53)
Income (loss) from discontinued operations (net of income taxes)	—	(14)	9	138
Net income (loss)	36	(30)	104	85
Net income attributable to noncontrolling interest (a)	—	3	—	27
Net income (loss) attributable to Ashland	$ 36	$ (33)	$ 104	$ 58
PER SHARE DATA				
Basic earnings per share - Note L				
Income (loss) from continuing operations	$ 0.57	$ (0.26)	$ 1.51	$ (0.85)
Income (loss) from discontinued operations attributable to Ashland	—	(0.28)	0.16	1.78
Net income (loss) attributable to Ashland	$ 0.57	$ (0.54)	$ 1.67	$ 0.93
Diluted earnings per share - Note L				
Income (loss) from continuing operations	$ 0.56	$ (0.26)	$ 1.49	$ (0.85)
Income (loss) from discontinued operations attributable to Ashland	—	(0.28)	0.15	1.78
Net income (loss) attributable to Ashland	$ 0.56	$ (0.54)	$ 1.64	$ 0.93
COMPREHENSIVE INCOME (LOSS)				
Net income (loss)	$ 36	$ (30)	$ 104	$ 85
Other comprehensive income (loss), net of tax				
Unrealized translation gain (loss)	(140)	105	(82)	19
Pension and postretirement obligation adjustment	—	—	—	(4)
Net change in available-for-sale securities	2	4	4	10
Other comprehensive income (loss)	(138)	109	(78)	25
Comprehensive income (loss)	(102)	79	26	110
Comprehensive income attributable to noncontrolling interest	—	3	—	27
Comprehensive income (loss) attributable to Ashland	$ (102)	$ 76	$ 26	$ 83

(a) For the three and nine months ended June 30, 2017, this represents the income attributable to the previous noncontrolling interest in Valvoline Inc., whose results are now included within discontinued operations. See Note B for more information.

SEE NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

ASHLAND GLOBAL HOLDINGS INC. AND CONSOLIDATED SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS

(In millions - unaudited)	June 30 2018	September 30 2017
ASSETS		
Current assets		
Cash and cash equivalents	$ 182	$ 566
Accounts receivable (a)	690	612
Inventories - Note F	656	634
Other assets	144	91
Total current assets	1,672	1,903
Noncurrent assets		
Property, plant and equipment		
Cost	3,826	3,762
Accumulated depreciation	1,933	1,792
Net property, plant and equipment	1,893	1,970
Goodwill - Note G	2,447	2,465
Intangibles - Note G	1,249	1,319
Restricted investments - Note E	304	302
Asbestos insurance receivable - Note K	181	209
Deferred income taxes	28	28
Other assets	450	422
Total noncurrent assets	6,552	6,715
Total assets	$ 8,224	$ 8,618
LIABILITIES AND EQUITY		
Current liabilities		
Short-term debt - Note H	$ 82	$ 235
Trade and other payables	397	409
Accrued expenses and other liabilities	263	324
Total current liabilities	742	968
Noncurrent liabilities		
Long-term debt - Note H	2,450	2,584
Asbestos litigation reserve - Note K	631	694
Deferred income taxes	243	375
Employee benefit obligations - Note J	186	191
Other liabilities	573	400
Total noncurrent liabilities	4,083	4,244
Commitments and contingencies - Note K		
Stockholders' equity	3,399	3,406
Total liabilities and stockholders' equity	$ 8,224	$ 8,618

(a) Accounts receivable includes an allowance for doubtful accounts of $9 million at both June 30, 2018 and September 30, 2017.

SEE NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

ASHLAND GLOBAL HOLDINGS INC. AND CONSOLIDATED SUBSIDIARIES
STATEMENT OF CONSOLIDATED EQUITY

(In millions - unaudited)	Common stock	Paid-in capital	Retained earnings	Accumulated other comprehensive income (loss) (a)	Total
BALANCE AT SEPTEMBER 30, 2017	$ 1	$ 931	$ 2,696	$ (222)	$ 3,406
Total comprehensive income (loss)					
Net income			104		104
Other comprehensive loss				(78)	(78)
Regular dividends, $0.70 per common share			(44)		(44)
Common shares issued under stock incentive and other plans (b)		11			11
BALANCE AT JUNE 30, 2018	$ 1	$ 942	$ 2,756	$ (300)	$ 3,399

(a) At June 30, 2018 and September 30, 2017, the after-tax accumulated other comprehensive loss attributable to Ashland of $300 million and $222 million, respectively, was each comprised of net unrealized translation losses of $328 million and $246 million, respectively, net unrealized gains on available-for-sale securities of $25 million and $21 million, respectively, and unrecognized prior service credits as a result of certain employee benefit plan amendments of $3 million for each period.
(b) Common shares issued were 308,779 for the nine months ended June 30, 2018.

SEE NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

ASHLAND GLOBAL HOLDINGS INC. AND CONSOLIDATED SUBSIDIARIES
STATEMENTS OF CONDENSED CONSOLIDATED CASH FLOWS

(In millions - unaudited)	Nine months ended June 30 2018	Nine months ended June 30 2017
CASH FLOWS PROVIDED (USED) BY OPERATING ACTIVITIES FROM CONTINUING OPERATIONS		
Net income	$ 104	$ 85
Income from discontinued operations (net of income taxes)	(9)	(138)
Adjustments to reconcile income from continuing operations to cash flows from operating activities:		
Depreciation and amortization	236	218
Original issue discount and debt issuance costs amortization	7	108
Deferred income taxes	(3)	(4)
Distributions from affiliates	1	1
Stock based compensation expense	20	14
Excess tax benefit on stock based compensation	4	2
Loss on early retirement of debt	—	9
Realized gains and investment income on available-for-sale securities	(10)	(9)
Net loss on acquisitions and divestitures	—	4
Pension contributions	(8)	(6)
Gain on post-employment plan remeasurement	—	(2)
Change in operating assets and liabilities (a)	(213)	(152)
Total cash flows provided by operating activities from continuing operations	129	130
CASH FLOWS PROVIDED (USED) BY INVESTING ACTIVITIES FROM CONTINUING OPERATIONS		
Additions to property, plant and equipment	(102)	(126)
Proceeds from disposal of property, plant and equipment	1	4
Purchase of operations - net of cash acquired	(11)	(680)
Proceeds from sale of operations	1	4
Life insurance payments	(37)	—
Net purchase of funds restricted for specific transactions	(10)	(2)
Reimbursement from restricted investments	25	19
Proceeds from sales of available-for-sale securities	17	19
Purchase of available-for-sale securities	(17)	(19)
Proceeds from the settlement of derivative instruments	1	5
Payments for the settlement of derivative instruments	(3)	(3)
Total cash flows used by investing activities from continuing operations	(135)	(779)
CASH FLOWS PROVIDED (USED) BY FINANCING ACTIVITIES FROM CONTINUING OPERATIONS		
Proceeds from issuance of long-term debt	—	1,100
Repayment of long-term debt	(135)	(913)
Premium on long-term debt	—	(17)
Proceeds from (repayment of) short-term debt	(158)	69
Debt issuance costs	(1)	(15)
Cash dividends paid	(44)	(62)
Stock based compensation employee withholding taxes paid in cash	(8)	(14)
Total cash flows provided (used) by financing activities from continuing operations	(346)	148
CASH PROVIDED (USED) BY CONTINUING OPERATIONS	(352)	(501)
Cash provided (used) by discontinued operations		
Operating cash flows	(34)	123
Investing cash flows	—	(293)
Financing cash flows	—	(17)
Total cash used by discontinued operations	(34)	(187)
Effect of currency exchange rate changes on cash and cash equivalents	2	(8)
DECREASE IN CASH AND CASH EQUIVALENTS	(384)	(696)
CASH AND CASH EQUIVALENTS - BEGINNING OF PERIOD	566	1,017
Change in cash and cash equivalents held by Valvoline	—	171
CASH AND CASH EQUIVALENTS - END OF PERIOD	$ 182	$ 492

(a) Excludes changes resulting from operations acquired or sold.

SEE NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

NOTE A – SIGNIFICANT ACCOUNTING POLICIES

Basis of presentation

The accompanying unaudited Condensed Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States for interim financial reporting and Securities and Exchange Commission (SEC) regulations. In the opinion of management, all adjustments considered necessary for a fair presentation have been included. Additionally, certain prior period data, primarily related to discontinued operations, have been reclassified in the Consolidated Financial Statements and accompanying notes to conform to the current period presentation, as further described in this section. These statements omit certain information and footnote disclosures required for complete annual financial statements and, therefore, should be read in conjunction with Ashland's Annual Report on Form 10-K for the fiscal year ended September 30, 2017. Results of operations for the period ended June 30, 2018 are not necessarily indicative of the expected results for the remaining quarter in the fiscal year.

On May 12, 2017, Ashland completed the distribution of its remaining 170 million shares of common stock of Valvoline Inc. which represented approximately 83% of the total outstanding shares of Valvoline Inc.'s common stock. This separation from Valvoline represented a strategic shift in Ashland's business and qualified as a discontinued operation. Accordingly, Valvoline's operating results and cash flows for the three and nine months ended June 30, 2017 have been classified as discontinued operations within the Condensed Consolidated Financial Statements. See Note B for additional information on the separation of Valvoline Inc.

Subsequent to completing the separation from Valvoline Inc., Ashland's operations are managed within the following three reportable segments: Specialty Ingredients, Composites and Intermediates and Solvents.

Use of estimates, risks and uncertainties

The preparation of Ashland's Condensed Consolidated Financial Statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosures of contingent assets and liabilities. Significant items that are subject to such estimates and assumptions include, but are not limited to, long-lived assets (including goodwill and other intangible assets), income taxes and liabilities and receivables associated with asbestos litigation and environmental remediation. Although management bases its estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, actual results could differ significantly from the estimates under different assumptions or conditions.

Ashland's results are affected by domestic and international economic, political, legislative, regulatory and legal actions. Economic conditions, such as recessionary trends, inflation, interest and monetary exchange rates, government fiscal policies and changes in the prices of certain key raw materials, can have a significant effect on operations. While Ashland maintains reserves for anticipated liabilities and carries various levels of insurance, Ashland could be affected by civil, criminal, regulatory or administrative actions, claims or proceedings relating to asbestos, environmental remediation or other matters.

New accounting standards

A description of new U.S. GAAP accounting standards issued or adopted during the current year is required in interim financial reporting. A detailed listing of new accounting standards relevant to Ashland is included in the Annual Report on Form 10-K for the fiscal year ended September 30, 2017. The following standards relevant to Ashland were either issued or adopted in the current period, or will become effective in a subsequent period.

In May 2014, the FASB issued accounting guidance outlining a single comprehensive five step model for entities to use in accounting for revenue arising from contracts with customers (ASC 606 Revenue from Contracts with Customers). The new guidance supersedes most current revenue recognition guidance, in an effort to converge the revenue recognition principles within U.S. GAAP. This new guidance also requires entities to disclose certain quantitative and qualitative information regarding the nature, amount, timing and uncertainty of qualifying revenue and cash flows arising from contracts with customers. Ashland has formed an implementation team that is continuing to evaluate the impact of the new standard on the Condensed Consolidated Financial Statements and the adoption method options available, as well as the overall impact the new guidance will have on the organization. The assessment process consists of categorizing Ashland's revenue streams and reviewing the current internal accounting policies and practices to determine potential differences that would result from applying the requirements of the new standard to revenue contracts. Additional discussions and meetings with each revenue stream team have occurred to solicit input and to identify potential impacts and appropriate changes to Ashland's business processes, systems and controls to support the revenue recognition and disclosure requirements under the new standard. Based on various preliminary assessments conducted to date, Ashland has identified agreements with distributors and customers that are subject to rebate and incentive programs that could contain elements of material rights and/or variable consideration. Ashland does not currently believe that these elements would result in a material change to how revenue would be recognized for these agreements. Ashland is currently completing the last phase of its implementation, which includes final assessment documentation and internal control design for the new standard. Ashland intends to adopt this standard using the modified retrospective approach and does not believe the impact will be material to the Condensed Consolidated Financial Statements but does expect there to be significant additional disclosures within the Notes to Condensed Consolidated Financial Statements. This guidance becomes effective for Ashland on October 1, 2018.

In February 2018, the FASB issued guidance which permits entities to reclassify tax effects stranded in accumulated other comprehensive income (AOCI) as a result of U.S. tax reform legislation to retained earnings. Additionally, this guidance requires entities to disclose whether they made an election to reclassify the tax effects and to disclose their accounting policy for releasing income tax effects from AOCI. This guidance becomes effective for Ashland on October 1, 2019. Ashland is currently evaluating the impact this guidance may have on Ashland's Condensed Consolidated Financial Statements.

In March 2017, the FASB issued accounting guidance that will change how employers who sponsor defined benefit pension and/or postretirement benefit plans present the net periodic benefit cost in the Statement of Consolidated Comprehensive Income (Loss). This guidance requires employers to present the service cost component of net periodic benefit cost in the same caption within the Statement of Consolidated Comprehensive Income (Loss) as other employee compensation costs from services rendered during the period. All other components of the net periodic benefit cost will be presented separately outside of the operating income caption. This guidance must be applied retrospectively. Ashland elected to early adopt this guidance on October 1, 2017, which resulted in a reclassification of $3 million in income from the selling, general and administrative expense and cost of sales captions to the other net periodic benefit income caption in the Statement of Consolidated Comprehensive Income (Loss) for the nine months ended June 30, 2017. The components of net periodic benefits income (costs) reclassified primarily relate to interest cost, expected return on assets, curtailments, settlements and actuarial gains and losses. Ashland did not have to adjust the classification of service cost since it previously was recorded within the caption required by the new guidance. See Note J for additional information on net periodic benefit costs.

In March 2016, the FASB issued new accounting guidance for certain aspects of share-based payments to employees. This guidance requires all excess tax benefits and tax deficiencies related to share-based payments to be recognized as income tax expense in the Statements of Consolidated Comprehensive Income (Loss) instead of additional paid-in capital, and changes the classification of excess tax benefits from a financing activity to an operating activity within the Statements of Condensed Consolidated Cash Flows. This guidance also allows entities to make an accounting policy election to either estimate the number of awards that are expected to vest or account for forfeitures when they occur. In addition, this guidance increases the amount an employer can withhold to cover income taxes on awards and still qualify for equity classification and requires that cash paid by an employer when directly withholding shares for tax-withholding purposes be classified as a financing activity within the Statements of Condensed Consolidated Cash Flows. The guidance became effective for Ashland and was adopted on October 1, 2017. The guidance specifically related to the Statements of Consolidated Comprehensive Income (Loss) was adopted prospectively while the guidance related to the Statements of Condensed Consolidated Cash Flows was adopted retrospectively, as required by the guidance. Additionally, Ashland made a policy election to account for forfeitures when they occur across all share-based awards. Upon adoption, the overall impact on Ashland's Condensed Consolidated Financial Statements was not significant.

NOTE B – VALVOLINE

Ashland Separation of Valvoline

On September 22, 2015, Ashland announced that the Board of Directors approved proceeding with a plan to separate Ashland into two independent, publicly traded companies comprising of the new Ashland (now known as Ashland Global Holdings Inc.) and Valvoline Inc. The initial step of the separation, the initial public offering (IPO) of Valvoline Inc., closed on September 28, 2016. As discussed further within the Final Separation section of this Note, Ashland completed the distribution of its remaining shares in Valvoline Inc. on May 12, 2017. The new Ashland is a premier global leader in providing specialty chemical solutions to customers in a wide range of consumer and industrial markets. Key markets and applications include pharmaceutical, personal care, food and beverage, architectural coatings, adhesives, automotive, construction and energy

After completing the IPO on September 28, 2016 and before the distribution of its remaining shares on May 12, 2017, Ashland owned 170 million shares of Valvoline Inc.’s common stock which represented approximately 83% of the total outstanding shares of Valvoline Inc.’s common stock. As a result, Ashland continued to consolidate Valvoline within the Condensed Consolidated Financial Statements up until the distribution of the remaining shares. The resulting outside stockholders’ interests in Valvoline Inc., which were approximately 17%, was presented separately as a noncontrolling interest within Ashland’s equity in the Condensed Consolidated Balance Sheets up until the distribution of the remaining shares. The amount of consolidated net income attributable to these minority holders is presented as a separate caption on the Statements of Consolidated Comprehensive Income (Loss) for the three and nine months ended June 30, 2017.

Final Separation

Ashland completed the distribution of its remaining 170 million shares of common stock of Valvoline Inc. as a pro rata dividend on shares of Ashland common stock outstanding at the close of business on the record date of May 5, 2017. Based on the shares of Ashland common stock outstanding as of May 5, 2017, the record date for the distribution, each share of Ashland common stock received 2.745338 shares of Valvoline common stock in the distribution. The distribution was recorded at the carrying amount of Valvoline Inc.'s net assets which was a deficit of $187 million as of May 12, 2017, as follows:

(In millions)		May 12 2017
ASSETS		
Current assets		
Cash and cash equivalents	$	179
Accounts receivable, net		385
Inventories		153
Other current assets		24
Total current assets		741
Noncurrent assets		
Net property, plant and equipment		357
Goodwill		329
Equity and other unconsolidated investments		31
Deferred income taxes		391
Other noncurrent assets		93
Total noncurrent assets		1,201
Total assets		1,942
LIABILITIES AND EQUITY		
Current liabilities		
Short-term debt		75
Current portion of long-term debt		16
Trade and other payables		353
Other current liabilities		34
Total current liabilities		478
Noncurrent liabilities		
Long-term debt		662
Employee benefit obligations		826
Other long-term liabilities		163
Total noncurrent liabilities		1,651
Total liabilities		2,129
Net deficit	$	(187)

A Tax Matters Agreement between Ashland and Valvoline Inc. governs the rights and obligations after the separation regarding certain income taxes and other taxes, including certain tax liabilities and benefits, attributes, returns and contests.

Discontinued Operations Assessment

Valvoline met the criteria to qualify as a discontinued operation and accordingly, its operating results and cash flows for the three and nine months ended June 30, 2017 have been classified as discontinued operations within the Condensed Consolidated Financial Statements. See Note D for more information.

Costs of transaction

Ashland recognized separation costs of $1 million and $28 million for the three months ended June 30, 2018 and 2017, respectively, and $9 million and $82 million for the nine months ended June 30, 2018 and 2017, respectively. Of these amounts, $13 million of separation costs directly related to Valvoline and were included within the discontinued operations caption of the Statement of Consolidated Comprehensive Income (Loss) for the nine months ended June 30, 2017, respectively. Otherwise, separation costs are recorded within the selling, general and administrative expense caption of the Statements of Consolidated Comprehensive Income (Loss).

NOTE C – ACQUISITIONS AND DIVESTITURES

Pharmachem

Background

On May 17, 2017, Ashland completed its acquisition of the stock of Pharmachem Laboratories, Inc. (Pharmachem), a leading provider of quality ingredients to the global health and wellness industries and high-value differentiated products to fragrance and flavor houses. At the acquisition date, Pharmachem had approximately $300 million in annual revenues and 14 manufacturing facilities located in the United States and Mexico. New Jersey-based Pharmachem develops, manufactures and supplies custom and branded nutritional and fragrance products. Ashland has included Pharmachem within the Specialty Ingredients reportable segment.

Purchase price allocation

The acquisition was recorded by Ashland using the purchase method of accounting in accordance with applicable U.S. GAAP whereby the total purchase price was allocated to tangible and intangible assets and liabilities acquired based on respective fair values. Goodwill was calculated as the excess of the consideration transferred over the net assets recognized and represents the estimated future economic benefits arising from other assets acquired that could not be individually identified and separately recognized. The factors contributing to the recognition of goodwill were based on strategic benefits that are expected to be realized from the acquisition. None of the goodwill is expected to be deductible for income tax purposes.

The all-cash purchase price of Pharmachem was $680 million which included working capital adjustments of approximately $20 million. The following table summarizes the values of the assets acquired and liabilities assumed at the date of acquisition.

Purchase price allocation (in millions)		At May 17, 2017 As Adjusted
Assets:		
Accounts receivable	$	52
Inventory		74
Other current assets		4
Intangible assets		330
Goodwill		290
Property, plant and equipment		94
Other noncurrent assets		20
Liabilities:		
Accounts payable		(33)
Deferred tax - net		(137)
Other noncurrent liabilities		(14)
Total purchase price	$	680

As of June 30, 2018, the purchase price allocation for the acquisition was finalized. During the nine months ended June 30, 2018, there were subsequent adjustments of $3 million to property, plant and equipment, $1 million to accounts payable and $1 million to deferred tax liabilities. The combined impact of these adjustments resulted in an increase to goodwill of $3 million.

Intangible assets identified

The purchase price allocation included $330 million of certain definite-lived intangible assets which are being amortized over the estimated useful life in proportion to the economic benefits consumed. The determination of the useful lives is based upon various industry studies, historical acquisition experience, economic factors, and future cash flows of the combined company. In addition, Ashland reviewed certain technological trends and considered the relative stability in the current Pharmachem customer base.

The following details the total intangible assets identified as of May 17, 2017.

Intangible asset type (in millions)		Value	Weighted-average amortization period (years)
Trademarks and trade names	$	26	15
Intellectual property		68	22
Customer and supplier relationships		236	20
Total	$	330	

Vornia Limited

In January 2018, Ashland completed the acquisition of Vornia Limited for $12 million, of which $1 million will be paid in future periods. Vornia Limited's principal activity is the design, development and fabrication of customized biomaterial solutions. The purchase price allocation primarily included $8 million of intellectual property and $4 million of goodwill and has been included within the Specialty Ingredients reportable segment.

Specialty Ingredients Joint Venture

During September 2016, Ashland entered into a definitive sale agreement to sell its ownership interest in a Specialty Ingredients joint venture in China, which primarily served the construction end market. Ashland recognized a loss of $12 million before tax in 2016 to recognize the assets at fair value less cost to sell, using Level 2 nonrecurring fair value measurements.

During June 2017, Ashland completed the transfer of its ownership interest in the joint venture and recognized an additional loss of $4 million during the three and nine months ended June 30, 2017 primarily related to a license fee and tax adjustments. The loss was reported within the net loss on acquisitions and divestitures caption within the Statement of Consolidated Comprehensive Income (Loss).

Ashland determined this transaction did not qualify for discontinued operations treatment since it did not represent a strategic shift that had or will have a major effect on Ashland's operations and financial results.

Specialty Ingredients Facility

During the three months ended June 30, 2017, Ashland committed to a plan to reorganize certain operations within the Specialty Ingredients reportable segment resulting in the closure of a manufacturing facility that was previously operational. As a result of this closure, the remaining value for primarily machinery and equipment related to this facility was written off, which resulted in an $11 million charge for these assets as well as an additional $2 million reserve for employee costs associated with the facility closure during the three and nine months ended June 30, 2017.

During the three months ended June 30, 2018, Ashland was in the process of finalizing the sale of the facility. As a result, Ashland recognized a loss of $2 million before tax to recognize the building and land at fair value less cost to sell, using Level 2 nonrecurring fair value measurements. The loss was reported within the net loss on acquisitions and divestitures caption within the Statement of Consolidated Comprehensive Income (Loss) for the three and nine months ended June 30, 2018.

NOTE D – DISCONTINUED OPERATIONS

In previous periods, Ashland has divested certain businesses that have qualified as discontinued operations. The operating results from these divested businesses and subsequent adjustments related to ongoing assessments of certain retained liabilities and tax items have been recorded within the discontinued operations caption in the Statements of Consolidated Comprehensive Income (Loss) for all periods presented and are discussed further within this note.

As previously discussed in Notes A and B, Ashland completed the distribution of its remaining 170 million shares of common stock of Valvoline Inc. on May 12, 2017. Ashland determined that the Valvoline separation qualified as a discontinued operation, in accordance with U.S. GAAP, since it represents a strategic shift for Ashland and has a major effect on Ashland's operations and financial results. Accordingly, Valvoline's operating results and cash flows for the three and nine months ended June 30, 2017 have been classified as discontinued operations within the Condensed Consolidated Financial Statements. The activity during the three and nine months ended June 30, 2018 generally represents subsequent adjustments that were made in conjunction with the Tax Matters Agreement.

Ashland is subject to liabilities from claims alleging personal injury caused by exposure to asbestos. Such claims result primarily from indemnification obligations undertaken in 1990 in connection with the sale of Riley Stoker Corporation (Riley), a former subsidiary of Ashland, which qualified as a discontinued operation, and from the 2009 acquisition of Hercules LLC (formerly Hercules Incorporated), a wholly-owned subsidiary of Ashland. Adjustments to the recorded litigation reserves and related insurance receivables are recorded within discontinued operations. See Note K for more information related to the adjustments on asbestos liabilities and receivables.

During 2011, Ashland completed the sale of substantially all of the assets and certain liabilities of its global distribution business, which previously comprised the Ashland Distribution (Distribution) reportable segment. Ashland determined that this sale qualified as a discontinued operation, in accordance with U.S. GAAP, since Ashland does not have significant continuing involvement in the Distribution business. Ashland has made subsequent adjustments to the discontinued operations caption related to the sale.

On July 31, 2014, Ashland completed the sale of the Ashland Water Technologies (Water Technologies) business. Ashland made subsequent post-closing adjustments to the discontinued operations caption as defined by the definitive agreement during the three and nine months ended June 30, 2017.

Components of amounts reflected in the Statements of Consolidated Comprehensive Income (Loss) related to discontinued operations are presented in the following table for the three and nine months ended June 30, 2018 and 2017.

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018	2017	2018	2017
Income (loss) from discontinued operations (net of tax)				
Valvoline	$ (7)	$ 12	$ 1	$ 161
Asbestos-related litigation	9	(25)	12	(25)
Distribution	(2)	—	(3)	—
Water Technologies	—	(1)	(1)	2
	$ —	$ (14)	$ 9	$ 138

The following table presents a reconciliation of the historically reported captions within Ashland's Statements of Consolidated Income (Loss) for the income from discontinued operations attributable to Valvoline for the three and nine months ended June 30, 2017.

(In millions)	Three months ended June 30, 2017	Nine months ended June 30, 2017
Income (loss) from discontinued operations attributable to Valvoline		
Sales	$ 234	$ 1,237
Cost of sales	(148)	(750)
Selling, general and administrative expense	(50)	(222)
Research and development expense	(1)	(8)
Equity and other income	3	17
Pretax operating income of discontinued operations	38	274
Net interest and other financing expense	(5)	(22)
Pretax income of discontinued operations	33	252
Income tax expense	(21)	(91)
Income from discontinued operations	$ 12	$ 161

NOTE E – FAIR VALUE MEASUREMENTS

As required by U.S. GAAP, Ashland uses applicable guidance for defining fair value, the initial recording and periodic remeasurement of certain assets and liabilities measured at fair value and related disclosures for instruments measured at fair value. Fair value accounting guidance establishes a fair value hierarchy, which prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). An instrument’s categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the instrument’s fair value measurement. The three levels within the fair value hierarchy are described as follows.

Level 1 – Observable inputs such as unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 – Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active.

Level 3 – Unobservable inputs for the asset or liability for which there is little, if any, market activity at the measurement date. Unobservable inputs reflect Ashland’s own assumptions about what market participants would use to price the asset or liability. The inputs are developed based on the best information available in the circumstances, which might include Ashland’s own financial data such as internally developed pricing models, discounted cash flow methodologies, as well as instruments for which the fair value determination requires significant management judgment.

For assets that are measured using quoted prices in active markets (Level 1), the total fair value is the published market price per unit multiplied by the number of units held without consideration of transaction costs. Assets and liabilities that are measured using significant other observable inputs (Level 2) are primarily valued by reference to quoted prices of similar assets or liabilities in active markets, adjusted for any terms specific to that asset or liability. For all other assets and liabilities for which unobservable inputs are used (Level 3), fair value is derived using fair value models, such as a discounted cash flow model or other standard pricing models that Ashland deems reasonable.

The following table summarizes financial instruments subject to recurring fair value measurements as of June 30, 2018.

(In millions)	Carrying value	Total fair value	Quoted prices in active markets for identical assets Level 1	Significant other observable inputs Level 2	Significant unobservable inputs Level 3
Assets					
Cash and cash equivalents	$ 182	$ 182	$ 182	$ —	$ —
Restricted investments (a)	334	334	334	—	—
Deferred compensation investments (b)	162	162	—	162	—
Investment of captive insurance company	2	2	2	—	—
Foreign currency derivatives	2	2	—	2	—
Total assets at fair value	$ 682	$ 682	$ 518	$ 164	$ —
Liabilities					
Foreign currency derivatives	$ 3	$ 3	$ —	$ 3	$ —

(a) Included in restricted investments is $30 million classified in the other current assets caption on the Condensed Consolidated Balance Sheets.
(b) Included in other noncurrent assets in the Condensed Consolidated Balance Sheets.

The following table summarizes financial asset instruments subject to recurring fair value measurements as of September 30, 2017.

(In millions)	Carrying value	Total fair value	Quoted prices in active markets for identical assets Level 1	Significant other observable inputs Level 2	Significant unobservable inputs Level 3
Assets					
Cash and cash equivalents	$ 566	$ 566	$ 566	$ —	$ —
Restricted investments (a)	332	332	332	—	—
Deferred compensation investments (b)	158	158	—	158	—
Investment of captive insurance company	3	3	3	—	—
Foreign currency derivatives	2	2	—	2	—
Total assets at fair value	$ 1,061	$ 1,061	$ 901	$ 160	$ —
Liabilities					
Foreign currency derivatives	$ 36	$ 36	$ —	$ 36	$ —

(a) Included in restricted investments is $30 million classified in the other current assets caption on the Condensed Consolidated Balance Sheets.
(b) Included in other noncurrent assets in the Condensed Consolidated Balance Sheets.

Restricted investments

During 2015, Ashland and Hercules entered into a comprehensive settlement agreement related to certain insurance coverage for asbestos bodily injury claims with Underwriters at Lloyd’s, certain London Companies and Chartis (AIG) member companies, along with National Indemnity Company and Resolute

Management, Inc., under which Ashland and Hercules received a total of $398 million (the January 2015 asbestos insurance settlement). Ashland placed $335 million of the settlement funds from the January 2015 asbestos insurance settlement into a renewable annual trust restricted for the purpose of paying ongoing and future litigation defense and claim settlement costs incurred in conjunction with asbestos claims. These funds were classified primarily as noncurrent restricted investment assets, with $30 million classified within other current assets, in the Condensed Consolidated Balance Sheets as of June 30, 2018 and September 30, 2017, respectively.

During 2015, Ashland diversified the restricted investments received from the January 2015 asbestos insurance settlement into primarily equity and corporate bond mutual funds that are designated as available-for-sale securities, classified as Level 1 measurements within the fair value hierarchy. Available-for-sale securities are reported at fair value with unrealized gains and losses, net of related deferred income taxes, included in the stockholders' equity section of the Condensed Consolidated Balance Sheets as a component of accumulated other comprehensive income (AOCI). Investment income and realized gains and losses on the available-for-sale securities are reported in the net interest and other financing expense caption in the Statements of Consolidated Comprehensive Income (Loss). The following table provides a summary of the available-for-sale securities portfolio as of June 30, 2018 and September 30, 2017:

(In millions)	June 30 2018	September 30 2017
Original cost	$ 335	$ 335
Accumulated adjustments, net	(38)	(24)
Adjusted cost, beginning of year (a)	297	311
Investment income (b)	6	9
Net unrealized gain	42	35
Realized gains	4	2
Settlement funds	10	2
Disbursements	(25)	(27)
Fair value	$ 334	$ 332

(a) The accumulated adjustments include investment income, realized gains, disbursements and settlements recorded in previous periods.
(b) Investment income for the demand deposit includes interest income as well as dividend income transferred from the equity and corporate bond mutual funds.

The following table presents gross unrealized gains and losses for the restricted investment available-for-sale securities as of June 30, 2018 and September 30, 2017:

(In millions)	Adjusted Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
As of June 30, 2018				
Demand deposit	$ 18	$ —	$ —	$ 18
Equity mutual fund	154	47	—	201
Corporate bond mutual fund	120	—	(5)	115
Fair value	$ 292	$ 47	$ (5)	$ 334
As of September 30, 2017				
Demand deposit	$ 9	$ —	$ —	$ 9
Equity mutual fund	168	34	—	202
Corporate bond mutual fund	120	1	—	121
Fair value	$ 297	$ 35	$ —	$ 332

The unrealized gains and losses as of June 30, 2018 and September 30, 2017 were recognized within AOCI. Ashland invests in highly-rated investment grade mutual funds. No other-than-temporary impairment was recognized in AOCI during the three and nine months ended June 30, 2018 and 2017.

The following table presents the investment income, realized gains and disbursements related to the investments within the portfolio for the three and nine months ended June 30, 2018 and 2017.

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018	2017	2018	2017
Investment income	$ 2	$ 2	$ 6	$ 7
Realized gains	—	—	4	2
Disbursements	(7)	(7)	(25)	(19)

Deferred compensation investments

Deferred compensation investments consist of Level 2 measurements within the fair value hierarchy which are comprised primarily of a guaranteed interest fund, a common stock index fund and an intermediate government bond fund. Gains and losses related to deferred compensation investments are immediately recognized within the Statements of Consolidated Comprehensive Income (Loss).

Foreign currency derivatives

Ashland conducts business in a variety of foreign currencies. Accordingly, Ashland regularly uses foreign currency derivative instruments to manage exposure on certain transactions denominated in foreign currencies to curtail potential earnings volatility effects on certain assets and liabilities, including short-term inter-company loans, denominated in currencies other than Ashland’s functional currency of an entity. These derivative contracts generally require exchange of one foreign currency for another at a fixed rate at a future date and generally have maturities of less than twelve months. All contracts are valued at fair value with net changes in fair value recorded within the selling, general and administrative expense caption. The impacts of these contracts were largely offset by gains and losses resulting from the impact of changes in exchange rates on transactions denominated in non-functional currencies. The following table summarizes the net gains and losses recognized during the three and nine months ended June 30, 2018 and 2017 within the Statements of Consolidated Comprehensive Income (Loss).

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018	2017	2018	2017
Foreign currency derivative losses	$ (9)	$ (1)	$ (36)	$ (1)

The following table summarizes the fair values of the outstanding foreign currency derivatives as of June 30, 2018 and September 30, 2017 included in accounts receivable and accrued expenses and other liabilities of the Condensed Consolidated Balance Sheets.

(In millions)	June 30 2018	September 30 2017
Foreign currency derivative assets	$ 2	$ 2
Notional contract values	309	79
Foreign currency derivative liabilities	$ 3	$ 36
Notional contract values	460	1,601

Other financial instruments

At June 30, 2018 and September 30, 2017, Ashland's long-term debt (including the current portion and excluding debt issuance cost discounts) had a carrying value of $2,483 million and $2,615 million, respectively, compared to a fair value of $2,541 million and $2,768 million, respectively. The fair values of long-term debt are based on quoted market prices or, if market prices are not available, the present values of the underlying cash flows discounted at Ashland’s incremental borrowing rates, which are deemed to be Level 2 measurements within the fair value hierarchy.

NOTE F – INVENTORIES

Inventories are carried at the lower of cost or net realizable value. Inventories are primarily stated at cost using the weighted-average cost method. In addition, certain inventories are valued at cost using the last-in, first-out (LIFO) method.

The following table summarizes Ashland's inventories as of the reported Condensed Consolidated Balance Sheet dates.

(In millions)	June 30, 2018	September 30, 2017
Finished products	$ 406	$ 390
Raw materials, supplies and work in process	255	245
LIFO carrying values	(5)	(1)
	$ 656	$ 634

NOTE G – GOODWILL AND OTHER INTANGIBLES

Goodwill

Ashland reviews goodwill and indefinite-lived intangible assets for impairment annually or when events and circumstances indicate an impairment may have occurred. This annual assessment is performed as of July 1 and consists of Ashland determining each reporting unit's current fair value compared to its current carrying value. For its July 1, 2017 assessment, Ashland determined that its reporting units for the allocation of goodwill are its three reportable segments: Specialty Ingredients, Composites and Intermediates and Solvents. At that time, Ashland determined no additional impairment existed.

The following is a progression of goodwill by reportable segment for the nine months ended June 30, 2018.

(In millions)	Specialty Ingredients	Composites	Intermediates and Solvents (a)	Total
Balance at September 30, 2017	$ 2,315	$ 150	$ —	$ 2,465
Acquisitions (b)	7	—	—	7
Currency translation	(19)	(6)	—	(25)
Balance at June 30, 2018	$ 2,303	$ 144	$ —	$ 2,447

(a) As of June 30, 2018 and September 30, 2017, there was accumulated impairment of $171 million related to the Intermediates and Solvents reportable segment.

(b) Relates to the acquisition of Vornia Limited and subsequent adjustments to the initial purchase price of Pharmachem during the nine months ended June 30, 2018. See Note C for more information.

Other intangible assets

Intangible assets principally consist of trademarks and trade names, intellectual property and customer and supplier relationships. Intangible assets classified as finite are amortized on a straight-line basis over their estimated useful lives. The cost of trademarks and trade names is amortized principally over 3 to 25 years, intellectual property over 5 to 25 years, and customer and supplier relationships over 3 to 24 years.

Ashland annually reviews indefinite-lived intangible assets for possible impairment or whenever events or changes in circumstances indicate that carrying amounts may not be recoverable.

Intangible assets were comprised of the following as of June 30, 2018 and September 30, 2017.

	June 30, 2018		
(In millions)	Gross carrying amount	Accumulated amortization	Net carrying amount
Definite-lived intangibles			
Trademarks and trade names	$ 67	$ (24)	$ 43
Intellectual property	758	(360)	398
Customer and supplier relationships	769	(262)	507
Total definite-lived intangibles	1,594	(646)	948
Indefinite-lived intangibles			
Trademarks and trade names	301	—	301
Total intangible assets	$ 1,895	$ (646)	$ 1,249

	September 30, 2017		
(In millions)	Gross carrying amount	Accumulated amortization	Net carrying amount
Definite-lived intangibles			
Trademarks and trade names	$ 67	$ (22)	$ 45
Intellectual property	757	(326)	431
Customer and supplier relationships	777	(235)	542
Total definite-lived intangibles	1,601	(583)	1,018
Indefinite-lived intangibles			
Trademarks and trade names	301	—	301
Total intangible assets	$ 1,902	$ (583)	$ 1,319

Amortization expense recognized on intangible assets was $24 million and $20 million for the three months ended June 30, 2018 and 2017, respectively, and $71 million and $58 million for the nine months ended June 30, 2018 and 2017, respectively, and is included in the selling, general and administrative expense caption of the Statements of Consolidated Comprehensive Income (Loss). Estimated amortization expense for future periods is $95 million in 2018 (includes nine months actual and three months estimated), $91 million in 2019, $90 million in 2020, $89 million in 2021 and $88 million in 2022. The amortization expense for future periods is an estimate. Actual amounts may change from such estimated amounts due to fluctuations in foreign currency exchange rates, additional intangible asset acquisitions and divestitures, potential impairment, accelerated amortization, or other events.

NOTE H – DEBT

The following table summarizes Ashland’s current and long-term debt as of the dates reported in the Condensed Consolidated Balance Sheets.

(In millions)	June 30, 2018	September 30, 2017
4.750% notes, due 2022	$ 1,083	$ 1,082
Term Loan B, due 2024	594	599
6.875% notes, due 2043	376	376
Revolving Credit Facility	—	173
Term Loan A, due 2022	250	250
Term Loan A, due 2020	120	250
Accounts receivable securitization	71	56
6.50% junior subordinated notes, due 2029	52	51
Medium-term notes, due 2019, interest of 9.4%	5	5
Other (a)	(19)	(23)
Total debt	2,532	2,819
Short-term debt (includes current portion of long-term debt)	(82)	(235)
Long-term debt (less current portion)	$ 2,450	$ 2,584

(a) Other includes $22 million and $25 million of debt issuance cost discounts as of June 30, 2018 and September 30, 2017, respectively.

The scheduled aggregate maturities of long-term debt by year (including the current portion and excluding debt issuance costs) are as follows: $2 million remaining in 2018, $11 million in 2019, $139 million in 2020, $56 million in 2021 and $1,279 million in 2022.

Ashland Financing Activities

Accounts receivable securitization

During March 2018, the termination date of the accounts receivable securitization facility was extended from March 2018 to March 2020. The available funding for qualified receivables under the accounts receivable securitization facility increased from $100 million to $115 million. No other changes to the agreement are expected to have a significant impact to Ashland's results of operations and financial position.

Cash repatriation

During the nine months ended June 30, 2018, Ashland repatriated approximately $470 million in cash that was primarily used to repay existing debt, principally the outstanding balance of the 2017 Revolving Credit Facility (as defined below) and a portion of the Three-Year TLA facility (as defined below).

2017 Credit Agreement

On May 17, 2017, in conjunction with the closing of the Pharmachem acquisition, Ashland entered into a secured credit agreement (the 2017 Credit Agreement) with a group of lenders. The 2017 Credit Agreement provided for (i) a $250 million three-year term loan A facility (the Three-Year TLA Facility), (ii) a $250 million five-year term loan A facility (the Five-Year TLA Facility and together with the Three-Year TLA Facility, the TLA Facilities) and (iii) a $680 million five-year revolving credit facility (including a $125 million letter of credit sublimit) (the 2017 Revolving Credit Facility). Proceeds of borrowings under the TLA Facilities were used solely to finance the acquisition of Pharmachem, while the proceeds of the 2017 Revolving Credit Facility were used to finance, in part, the acquisition of Pharmachem, to refinance the 2015 Senior Credit Agreement and for general corporate purposes. On May 19, 2017, Ashland entered into Amendment No. 1 to the 2017 Credit Agreement, which increased the aggregate commitments under the 2017 Revolving Credit Facility from $680 million to $800 million.

At Ashland's option, loans issued under the 2017 Credit Agreement bear interest at either LIBOR or an alternate base rate, in each case plus the applicable interest rate margin. Loans bear interest at LIBOR plus 1.75% per annum, in the case of LIBOR borrowings, or at the alternate base rate plus 0.75%, in the alternative, through and including the date of delivery of a quarterly compliance certificate and thereafter the interest rate will fluctuate between LIBOR plus 1.375% per annum and LIBOR plus 2.500% per annum (or between the alternate base rate plus 0.375% per annum and the alternate base rate plus 1.500% per annum), based upon Ashland's secured facilities ratings or the consolidated net leverage ratio (as defined in the 2017 Credit Agreement) (whichever yields a lower applicable interest rate margin) at such time. In addition, Ashland was required to pay fees of 0.25% per annum on the daily unused amount of the 2017 Revolving Credit Facility through and including the date of delivery of a compliance certificate, and thereafter the fee rate fluctuates between 0.175% and 0.40% per annum, based upon Ashland's secured facilities rating or the consolidated net leverage ratio (whichever yields a lower applicable rate). The TLA Facilities may be prepaid at any time without premium. The Three-Year TLA Facility will not amortize and will be due on May 17, 2020. The Five-Year TLA Facility will not amortize in each of the first, second and third years and will amortize at a rate of 20% per annum in each of the fourth and fifth years (payable in equal quarterly installments), with the outstanding balance of the Five-Year TLA Facility to be paid on May 17, 2022.

On June 14, 2017, Ashland entered into Amendment No. 2 to the 2017 Credit Agreement, which provided for a new $600 million seven-year senior secured term loan B facility (the 2017 TLB Facility). At Ashland's option, loans issued under the 2017 TLB Facility bear interest at either (x) LIBOR plus 2.00% per annum or (y) an alternate base rate plus 1.00% per annum. The 2017 TLB Facility may be prepaid at any time. The 2017 TLB Facility amortizes at a rate of 1.00% per annum (payable in equal quarterly installments) with the outstanding balance to be paid on May 17, 2024.

Ashland incurred $15 million of new debt issuance costs in connection with the 2017 Credit Agreement, of which $2 million was recognized immediately during the three and nine months ended June 30, 2017 within the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income (Loss). The remaining balance is amortized using the effective interest method. Additionally, as a result of the termination of the 2015 Senior Credit Facility, Ashland recognized a $5 million charge for the accelerated amortization of previously capitalized debt issuance costs, which is included in the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income (Loss).

2018 financing activity related to the 2017 Credit Agreement

On May 22, 2018, Ashland entered into Amendment No. 3 to the 2017 Credit Agreement which provided for the re-pricing of the 2017 TLB facility. Due to this amendment, loans issued under the 2017 TLB facility bear interest at LIBOR plus 1.75% per annum (previously LIBOR plus 2.00% per annum). All other significant terms of the agreement remained unchanged. Ashland incurred $1 million of new debt issuance costs in connection with the re-pricing, which was expensed during the three and nine months ended June 30, 2018 within the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income (Loss).

During the three months ended June 30, 2018, Ashland primarily utilized cash from repatriations and borrowings from the accounts receivable securitization facility to repay $130 million of the outstanding balance of the Three-Year TLA facility. As a result of these repayments, Ashland recognized accelerated amortization of previously capitalized debt issuance costs of less than $1 million during the three and nine months ended June 30, 2018, which was included in the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income (Loss).

Redemption of 3.875% notes due 2018

During the third quarter of 2017 in connection with the issuance of the 2017 TLB Facility, Ashland redeemed all of its outstanding 3.875% Senior Notes due 2018 (2018 notes), of which approximately $659 million were outstanding. Proceeds of borrowings under the 2017 TLB Facility, together with cash on hand, were used to pay for the redemption. Ashland recognized a $13 million charge related to premiums paid and accelerated amortization of previously capitalized debt issuance costs, which is included in the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income for the three and nine months ended June 30, 2017.

6.50% junior subordinated notes due 2029

In December 2016, Hercules LLC (Hercules) (formerly Hercules Incorporated), an indirect wholly-owned subsidiary of Ashland, repurchased, through a cash tender offer (the Tender Offer), $182 million of the aggregate principal par value amount of its 6.50% junior subordinated notes due 2029 (2029 notes) for an aggregate purchase price of $177 million. As a result of the Tender Offer, the carrying value of the 2029 notes was reduced by $90 million and Ashland recognized a $92 million charge related to accelerated accretion of the recorded debt discount (compared to the total par value) and $5 million of a net gain related to the repayment of the debt. The charge and net gain are included in the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income (Loss) for the nine months ended June 30, 2017.

Open market repurchases of 4.750% notes due 2022 and 3.875% notes due 2018

During the nine months ended June 30, 2017, Ashland executed open market repurchases of its 4.750% notes due 2022 (2022 notes) and its 3.875% notes due 2018 (2018 notes). As a result of these repurchases, the carrying values of the 2022 notes and 2018 notes were reduced by $39 million and $41 million, respectively. Ashland recognized a $3 million charge related to premiums paid in the open market repurchases and accelerated amortization of previously capitalized debt issuance costs, which is included in the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income (Loss) for the nine months ended June 30, 2017.

Remaining borrowing capacity

The borrowing capacity remaining under the 2017 Revolving Credit Facility was $750 million due to a reduction of $50 million for letters of credit outstanding as of June 30, 2018. Ashland's total borrowing capacity at June 30, 2018 was $794 million, which included $44 million of available capacity from the accounts receivable securitization facility.

Covenants related to current Ashland debt agreements

Ashland's debt contains usual and customary representations, warranties and affirmative and negative covenants, including financial covenants for leverage and interest coverage ratios, limitations on liens, additional subsidiary indebtedness, restrictions on subsidiary distributions, investments, mergers, sale of assets and restricted payments and other customary limitations. As of June 30, 2018, Ashland is in compliance with all debt agreement covenant restrictions.

The maximum consolidated net leverage ratio permitted under Ashland's most recent credit agreement (the 2017 Credit Agreement) is 4.5. At June 30, 2018, Ashland’s calculation of the consolidated net leverage ratio was 3.7.

The minimum required consolidated interest coverage ratio under the 2017 Credit Agreement during its entire duration is 3.0. At June 30, 2018, Ashland’s calculation of the interest coverage ratio was 4.9.

NOTE I – INCOME TAXES

Tax Law Changes

The Tax Cuts and Jobs Act (Tax Act) was enacted on December 22, 2017. The Tax Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and creates new taxes on certain foreign sourced earnings. At June 30, 2018, Ashland has not completed the internal accounting assessment for the tax effects of enactment of the Tax Act; however, Ashland determined a reasonable estimate of the effects on our existing deferred tax balances and the one-time transition tax. Ashland recognized a provisional amount for the nine months ended June 30, 2018, which is included as a component of income tax expense from continuing operations. Ashland recorded net unfavorable tax adjustments of $16 million during the nine months ended June 30, 2018 primarily related to deferred tax rate changes and a one-time transition tax assessed on foreign cash and unremitted earnings.

Provisional amounts - Deferred and other income tax assets and liabilities

Ashland remeasured certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, which is generally 21%. However, Ashland is still analyzing certain aspects of the

Tax Act and refining certain calculations, which could potentially affect the measurement of these balances or potentially give rise to new deferred tax amounts. The provisional amount recorded related to the remeasurement of the deferred tax balance was a favorable tax adjustment of $126 million during the nine months ended June 30, 2018.

Provisional amounts - Foreign tax effects

The one-time transition tax is based on Ashland's total post-1986 earnings and profits (E&P) of foreign subsidiaries that were previously deferred from U.S. income taxes. Ashland recorded a provisional amount for this one-time transition tax liability of $142 million during the nine months ended June 30, 2018, which is primarily included within the other liabilities caption on the Condensed Consolidated Balance Sheet. Ashland has not yet completed its calculation of the total post-1986 E&P for these foreign subsidiaries. In addition, the transition tax is based in part on the amount of those earnings held in cash and other specified assets. This amount may change when Ashland finalizes the calculation of post-1986 E&P of foreign subsidiaries previously deferred from U.S. federal taxation and finalizes the amounts held in cash or other specified assets. No additional income taxes have been provided for any remaining undistributed foreign earnings not subject to the transition tax, or any additional outside basis difference inherent in these entities, as these amounts continue to be indefinitely reinvested in foreign operations. Ashland determined that the amount of unrecognized deferred tax liability related to any remaining undistributed foreign earnings not subject to the transition tax and additional outside basis difference in these entities (i.e., basis difference in excess of that subject to the one-time transition tax) is not practicable at this time.

Current fiscal year

Ashland’s effective tax rate in any interim period is subject to adjustments related to discrete items and the mix of domestic and foreign operating results. The overall effective tax rate was a benefit rate of 16% and expense of 10% for the three and nine months ended June 30, 2018, respectively. The current quarter tax rate was impacted by income mix as well as $8 million from favorable tax discrete items including a valuation allowance release related to a foreign entity and a domestic tax rate change. In addition to income mix, the current nine-month period tax rate was impacted by net unfavorable tax discrete adjustments of $16 million primarily related to the Tax Act, partially offset by a favorable tax discrete adjustment of $4 million related to a deferred tax rate change for a foreign entity and the current quarter favorable discrete items of $8 million previously noted.

Prior fiscal year

The overall effective tax rate was 20% and 48% for the three and nine months ended June 30, 2017, respectively. The prior quarter tax rate was impacted by income mix and net unfavorable tax discrete adjustments primarily related to changes in the realization of certain historic tax attributes due to the Valvoline distribution and the Pharmachem acquisition as well as tax on certain restructuring items. For the prior nine-month period, the tax rate was primarily impacted by net unfavorable tax discrete adjustments previously noted, partially offset by a reversal for unrecognized tax benefits due to lapse of the statute of limitations.

Unrecognized tax benefits

Changes in unrecognized tax benefits are summarized as follows for the nine months ended June 30, 2018.

(In millions)		
Balance at October 1, 2017	$	194
Increases related to positions taken on items from prior years		3
Decreases related to positions taken on items from prior years		(2)
Increases related to positions taken in the current year		8
Settlements		(1)
Lapse of statute of limitations		(1)
Balance at June 30, 2018	$	201

From a combination of statute expirations and audit settlements in the next twelve months, Ashland expects a decrease in the amount accrued for uncertain tax positions of between $35 million and $39 million. It is reasonably possible that there could be other material changes to the amount of uncertain tax positions due to activities of the taxing authorities, settlement of audit issues or the reassessment of existing uncertain tax positions; however, Ashland is not able to estimate the impact of these items at this time.

NOTE J - EMPLOYEE BENEFIT PLANS

For the nine months ended June 30, 2018, Ashland contributed $7 million to its non-U.S. pension plans and $1 million to its U.S. pension plans. Ashland expects to make additional contributions of approximately $1 million to its non-U.S. plans during the remainder of 2018.

Plan Remeasurements

Effective January 1, 2017, Ashland discontinued certain post-employment health and life insurance benefits. The effect of these plan changes resulted in a remeasurement gain of $2 million recorded within the other net periodic benefit income caption on the Statement of Consolidated Comprehensive Income (Loss) for the nine months ended June 30, 2017.

Components of net periodic benefit costs (income)

The following table details the components of pension and other postretirement benefit costs for continuing operations.

	Pension benefits		Other postretirement benefits	
(In millions)	2018	2017	2018	2017
Three months ended June 30				
Service cost (a)	$ 2	$ 2	$ 1	$ —
Interest cost (b)	3	2	—	—
Expected return on plan assets (b)	(3)	(2)	—	—
Total net periodic benefit costs	$ 2	$ 2	$ 1	$ —
Nine months ended June 30				
Service cost (a)	$ 6	$ 6	$ 1	$ —
Interest cost (b)	7	6	1	1
Expected return on plan assets (b)	(9)	(8)	—	—
Actuarial gain (b)	—	—	—	(2)
Total net periodic benefit costs (income)	$ 4	$ 4	$ 2	$ (1)

(a) Service cost was not impacted by new accounting guidance adopted in 2018 and is therefore still classified within the selling, general and administrative expense and cost of sales captions on the Statements of Consolidated Comprehensive Income (Loss). See Note A for additional information.
(b) These components are now classified within the other net periodic benefit income caption on the Statements of Consolidated Comprehensive Income (Loss) due to the adoption of new accounting guidance in the current quarter. See Note A for additional information.

For segment reporting purposes, service cost for continuing operations is proportionately allocated to each segment, excluding the Unallocated and other segment, while all other costs for continuing operations are recorded within the other net periodic benefit income caption on the Statements of Consolidated Comprehensive Income (Loss).

NOTE K – LITIGATION, CLAIMS AND CONTINGENCIES

Asbestos litigation

Ashland and Hercules have liabilities from claims alleging personal injury caused by exposure to asbestos. To assist in developing and annually updating independent reserve estimates for future asbestos claims and related costs given various assumptions, Ashland retained third party actuarial experts. Prior to 2018, Ashland retained Hamilton, Rabinovitz & Associates, Inc. (HR&A). During 2018, Ashland transitioned these responsibilities to Nathan Associates, Inc. (Nathan). The processes and methodologies used by Nathan are similar to the ones historically employed by HR&A. The methodology used by Nathan to project future asbestos costs is based largely on recent experience, including claim-filing and settlement rates, disease mix, enacted legislation, open claims and litigation defense. The claim experience of Ashland and Hercules are separately compared to the results of previously conducted third party epidemiological studies estimating the number of people likely to develop asbestos-related diseases. Those studies were undertaken in connection with national analyses of the population expected to have been exposed to asbestos. Using that information, Nathan estimates a range of the number of future claims that may be filed, as well as the related costs that may be incurred in resolving those claims. Changes in asbestos-related liabilities and receivables are recorded on an after-tax basis within the discontinued operations caption in the Statements of Consolidated Comprehensive Income (Loss).

Ashland asbestos-related litigation

The claims alleging personal injury caused by exposure to asbestos asserted against Ashland result primarily from indemnification obligations undertaken in 1990 in connection with the sale of Riley. The amount and timing of settlements and number of open claims can fluctuate from period to period. A summary of Ashland asbestos claims activity, excluding Hercules claims, follows.

	Nine months ended June 30		Years ended September 30		
(In thousands)	2018	2017	2017	2016	2015
Open claims - beginning of year	54	57	57	60	65
New claims filed	2	2	2	2	2
Claims settled	(1)	(1)	(1)	—	—
Claims dismissed	(2)	(3)	(4)	(5)	(7)
Open claims - end of period	53	55	54	57	60

Ashland asbestos-related liability

From the range of estimates, Ashland records the amount it believes to be the best estimate of future payments for litigation defense and claim settlement costs, which generally approximates the mid-point of the estimated range of exposure from model results. Ashland reviews this estimate and related assumptions quarterly and annually updates the results of a non-inflated, non-discounted approximate 50-year model developed with the assistance of Nathan.

During the most recent annual update of this estimate completed during the June 2018 quarter, it was determined that the liability for Ashland asbestos-related claims should be decreased by $8 million. Total reserves for asbestos claims were $385 million at June 30, 2018 compared to $419 million at September 30, 2017.

A progression of activity in the asbestos reserve is presented in the following table.

	Nine months ended June 30		Years ended September 30		
(In millions)	2018	2017	2017	2016	2015
Asbestos reserve - beginning of year	$ 419	$ 415	$ 415	$ 409	$ 438
Reserve adjustment	(8)	36	36	37	—
Amounts paid	(26)	(27)	(32)	(31)	(29)
Asbestos reserve - end of period (a)	$ 385	$ 424	$ 419	$ 415	$ 409

(a) Included $31 million and $34 million classified in accrued expenses and other liabilities on the Condensed Consolidated Balance Sheets as of June 30, 2018 and September 30, 2017, respectively.

Ashland asbestos-related receivables

Ashland has insurance coverage for certain litigation defense and claim settlement costs incurred in connection with its asbestos claims, and coverage-in-place agreements exist with the insurance companies that provide substantially all of the coverage that will be accessed.

For the Ashland asbestos-related obligations, Ashland has estimated the value of probable insurance recoveries associated with its asbestos reserve based on management's interpretations and estimates surrounding the available or applicable insurance coverage, including an assumption that all solvent insurance carriers remain solvent. A substantial portion of the estimated receivables from insurance companies are expected to be due from domestic insurers.

At June 30, 2018, Ashland's receivable for recoveries of litigation defense and claim settlement costs from insurers amounted to $142 million (excluding the Hercules receivable for asbestos claims) compared to $155 million at September 30, 2017. During the June 2018 quarter, the annual update of the model used for purposes of valuing the asbestos reserve and its impact on valuation of future recoveries from insurers was completed. This model update resulted in a $5 million decrease in the receivable for probable insurance recoveries.

A progression of activity in the Ashland insurance receivable is presented in the following table.

	Nine months ended June 30		Years ended September 30		
(In millions)	2018	2017	2017	2016	2015
Insurance receivable - beginning of year	$ 155	$ 151	$ 151	$ 150	$ 402
Receivable adjustment	(5)	15	15	16	(3)
Insurance settlement	—	(5)	(5)	(4)	(227)
Amounts collected	(8)	(5)	(6)	(11)	(22)
Insurance receivable - end of period (a)	$ 142	$ 156	$ 155	$ 151	$ 150

(a) Included $15 million and $14 million classified in accounts receivable on the Condensed Consolidated Balance Sheets as of June 30, 2018 and September 30, 2017, respectively.

Hercules asbestos-related litigation

Hercules has liabilities from claims alleging personal injury caused by exposure to asbestos. Such claims typically arise from alleged exposure to asbestos fibers from resin encapsulated pipe and tank products which were sold by one of Hercules' former subsidiaries to a limited industrial market. The amount and timing of settlements and number of open claims can fluctuate from period to period. A summary of Hercules' asbestos claims activity follows.

	Nine months ended June 30		Years ended September 30		
(In thousands)	2018	2017	2017	2016	2015
Open claims - beginning of year	12	15	15	20	21
New claims filed	1	1	1	1	1
Claims dismissed	(1)	(4)	(4)	(6)	(2)
Open claims - end of period	12	12	12	15	20

Hercules asbestos-related liability

From the range of estimates, Ashland records the amount it believes to be the best estimate of future payments for litigation defense and claim settlement costs, which generally approximates the mid-point of the estimated range of exposure from model results. Ashland reviews this estimate and related assumptions quarterly and annually updates the results of a non-inflated, non-discounted approximate 50-year model developed with the assistance of Nathan. As a result of the most recent annual update of this estimate, completed during the June 2018 quarter, it was determined that the liability for Hercules asbestos-related claims should be decreased by $19 million. Total reserves for asbestos claims were $289 million at June 30, 2018 compared to $323 million at September 30, 2017.

A progression of activity in the asbestos reserve is presented in the following table.

	Nine months ended June 30		Years ended September 30		
(In millions)	2018	2017	2017	2016	2015
Asbestos reserve - beginning of year	$ 323	$ 321	$ 321	$ 311	$ 329
Reserve adjustments	(19)	16	16	25	4
Amounts paid	(15)	(9)	(14)	(15)	(22)
Asbestos reserve - end of period (a)	$ 289	$ 328	$ 323	$ 321	$ 311

(a) Included $12 million and $14 million classified in accrued expenses and other liabilities on the Condensed Consolidated Balance Sheets as of June 30, 2018 and September 30, 2017, respectively.

Hercules asbestos-related receivables

For the Hercules asbestos-related obligations, certain reimbursement obligations pursuant to coverage-in-place agreements with insurance carriers exist. As a result, any increases in the asbestos reserve have been partially offset by probable insurance recoveries. Ashland has estimated the value of probable insurance recoveries associated with its asbestos reserve based on management’s interpretations and estimates surrounding the available or applicable insurance coverage, including an assumption that all solvent insurance carriers remain solvent. The estimated receivable consists exclusively of solvent domestic insurers.

As of June 30, 2018, Ashland’s receivable for recoveries of litigation defense and claims costs from insurers with respect to Hercules amounted to $54 million compared to $68 million at September 30, 2017. During the June 2018 quarter, the annual update of the model used for purposes of valuing the asbestos reserve and its impact on valuation of future recoveries from insurers was completed. This model update resulted in a decrease of $14 million in the receivable for probable insurance recoveries.

A progression of activity in the Hercules insurance receivable is presented in the following table.

	Nine months ended June 30		Years ended September 30		
(In millions)	2018	2017	2017	2016	2015
Insurance receivable - beginning of year	$ 68	$ 63	$ 63	$ 56	$ 77
Receivable adjustment	(14)	5	5	7	1
Insurance settlement	—	—	—	—	(22)
Insurance receivable - end of period	$ 54	$ 68	$ 68	$ 63	$ 56

Asbestos litigation cost projection

Projecting future asbestos costs is subject to numerous variables that are extremely difficult to predict. In addition to the significant uncertainties surrounding the number of claims that might be received, other variables include the type and severity of the disease alleged by each claimant, the long latency period associated with asbestos exposure, mortality rates, dismissal rates, costs of medical treatment, the impact of bankruptcies of other companies that are co-defendants in claims, uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, and the impact of potential changes in legislative or judicial standards. Furthermore, any predictions with respect to these variables are subject to even greater uncertainty as the projection period lengthens. Considering these inherent uncertainties, Ashland believes that the asbestos reserves for Ashland and Hercules represent the best estimate within a range of possible outcomes. As a part of the process to develop these estimates of future asbestos costs, a range of long-term cost models was developed. These models are based on national studies that predict the number of people likely to develop asbestos-related diseases and are heavily influenced by assumptions regarding long-term inflation rates for indemnity payments and legal defense costs, as well as other variables mentioned previously. Ashland has currently estimated in various models ranging from approximately 40 to 50 year periods that it is reasonably possible that total future litigation defense and claim settlement costs on an inflated and undiscounted basis could range as high as approximately $600 million for the Ashland asbestos-related litigation (current reserve of $385 million) and approximately $450 million for the Hercules asbestos-related litigation (current reserve of $289 million), depending on the combination of assumptions selected in the various models. If actual experience is worse than projected, relative to the number of claims filed, the severity of alleged disease associated with those claims or costs incurred to resolve those claims, or actuarial refinement or improvements to the assumptions used within these models are initiated, Ashland may need to further increase the estimates of the costs associated with asbestos claims and these increases could be material over time.

Environmental remediation and asset retirement obligations

Ashland is subject to various federal, state and local environmental laws and regulations that require environmental assessment or remediation efforts (collectively environmental remediation) at multiple locations. At June 30, 2018, such locations included 82 waste treatment or disposal sites where Ashland has been identified as a potentially responsible party under Superfund or similar state laws, 115 current and former operating facilities (including certain operating facilities conveyed as part of the MAP Transaction) and about 1,225 service station properties, of which 36 are being actively remediated.

Ashland’s reserves for environmental remediation and related environmental litigation amounted to $192 million at June 30, 2018 compared to $163 million at September 30, 2017, of which $150 million at June 30, 2018 and $121 million at September 30, 2017 were classified in other noncurrent liabilities on the Condensed Consolidated Balance Sheets. The remaining reserves were classified in accrued expenses and other liabilities on the Condensed Consolidated Balance Sheets.

The following table provides a reconciliation of the changes in the environmental remediation reserves during the nine months ended June 30, 2018 and 2017.

	Nine months ended June 30	
(In millions)	2018	2017
Reserve - beginning of period	$ 163	$ 177
Disbursements	(26)	(22)
Revised obligation estimates and accretion	55	18
Reserve - end of period	$ 192	$ 173

The total reserves for environmental remediation reflect Ashland’s estimates of the most likely costs that will be incurred over an extended period to remediate identified conditions for which the costs are reasonably estimable, without regard to any third-party recoveries. Engineering studies, probability techniques, historical experience and other factors are used to identify and evaluate remediation alternatives and their related costs in determining the estimated reserves for environmental remediation. Ashland continues to discount certain environmental sites and regularly adjusts its reserves as environmental remediation continues. Ashland has estimated the value of its probable insurance recoveries associated with its environmental reserve based on management’s interpretations and estimates surrounding the available or applicable insurance coverage. At June 30, 2018 and September 30, 2017, Ashland’s recorded receivable for these probable insurance recoveries was $14 million and $15 million, respectively, of which $13 million at June 30, 2018 and $14 million at September 30, 2017 were classified in other noncurrent assets on the Condensed Consolidated Balance Sheets.

During the June 2018 quarter, Ashland incurred a $37 million charge for certain environmental liabilities. Of that amount, $18 million related to one site where, after significant research and analysis as part of Ashland’s normal process and protocol for these matters, the estimated cost for the ongoing remediation was finalized. As such, Ashland recorded the expense for this remediation project in the current period since a reasonable estimate that is in accordance with U.S. GAAP provisions could be determined. The remaining charges in the current quarter related to normal ongoing remediation cost estimate updates for sites, which is consistent with Ashland's historical environmental accounting policy.

Components of environmental remediation expense included within the selling, general and administrative expense caption of the Statements of Consolidated Comprehensive Income (Loss) are presented in the following table for the three and nine months ended June 30, 2018 and 2017.

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018	2017	2018	2017
Environmental expense	$ 37	$ 11	$ 54	$ 16
Accretion	—	2	1	2
Legal expense	1	1	4	6
Total expense	38	14	59	24
Insurance receivable (a)	(1)	(2)	(2)	(2)
Total expense, net of receivable activity (b)	$ 37	$ 12	$ 57	$ 22

(a) Activity of $0 denotes value less than $1 million.
(b) Net expense of $3 million and $4 million for the three and nine months ended June 30, 2018, respectively, and $1 million and $3 million for the three and nine months ended June 30, 2017, respectively, relates to divested businesses which qualified for treatment as discontinued operations and for which certain environmental liabilities were retained by Ashland. These amounts are classified within the income from discontinued operations caption of the Statements of Consolidated Comprehensive Income (Loss).

Environmental remediation reserves are subject to numerous inherent uncertainties that affect Ashland's ability to estimate its share of the costs. Such uncertainties involve the nature and extent of contamination at each site, the extent of required cleanup efforts under existing environmental regulations, widely varying costs of alternate cleanup methods, changes in environmental regulations, the potential effect of continuing improvements in remediation technology, and the number and financial strength of other potentially responsible parties at multiparty sites. Although it is not possible to predict with certainty the ultimate costs of environmental remediation, Ashland currently estimates that the upper end of the reasonably possible range of future costs for identified sites could be as high as approximately $440 million. The largest reserve for any site is approximately 15% of the remediation reserve.

Other legal proceedings and claims

In addition to the matters described above, there are other various claims, lawsuits and administrative proceedings pending or threatened against Ashland and its current and former subsidiaries. Such actions are with respect to commercial matters, product liability, toxic tort liability, and other environmental matters, which seek remedies or damages, some of which are for substantial amounts. While Ashland cannot predict with certainty the outcome of such actions, it believes that adequate reserves have been recorded and losses already recognized with respect to such actions were immaterial as of June 30, 2018 and September 30, 2017. There is a reasonable possibility that a loss exceeding amounts already recognized may be incurred related to these actions; however, Ashland believes that such potential losses were immaterial as of June 30, 2018.

NOTE L – EARNINGS PER SHARE

The following is the computation of basic and diluted earnings per share (EPS) from continuing operations attributable to Ashland. Stock appreciation rights (SARs), stock options and warrants available to purchase shares outstanding for each reporting period whose grant price was greater than the average market price of Ashland Common Stock for each applicable period were not included in the computation of income from continuing operations per diluted share because the effect of these instruments would be antidilutive. The total number of these shares outstanding was approximately 0.7 million and 1.4 million at June 30, 2018 and 2017, respectively. Earnings per share is reported under the treasury stock method.

	Three months ended June 30		Nine months ended June 30	
(In millions, except per share data)	2018	2017	2018	2017
Numerator				
Numerator for basic and diluted EPS -				
Income (loss) from continuing operations	$ 36	$ (16)	$ 95	$ (53)
Denominator				
Denominator for basic EPS - Weighted-average				
common shares outstanding	63	62	63	62
Share based awards convertible to common shares (a)	1	—	1	—
Denominator for diluted EPS - Adjusted weighted-				
average shares and assumed conversions	64	62	64	62
EPS from continuing operations				
Basic	$ 0.57	$ (0.26)	$ 1.51	$ (0.85)
Diluted	0.56	(0.26)	1.49	(0.85)

(a) As a result of the loss from continuing operations attributable to Ashland during the three and nine months ended June 30, 2017, the effect of the share-based awards convertible to common shares would be antidilutive. In accordance with U.S. GAAP, they have been excluded from the diluted EPS calculation.

NOTE M – EQUITY ITEMS

Stock repurchase programs

In April 2015, Ashland's Board of Directors approved a $1 billion share repurchase authorization that was set to expire on December 31, 2017 (the 2015 stock repurchase program). During September 2017, Ashland's Board of Directors extended the 2015 stock repurchase program indefinitely, at which point $500 million of share repurchase authorization remained under the 2015 stock repurchase program.

During March 2018, Ashland’s Board of Directors approved a new $1 billion stock repurchase program, which replaced the 2015 stock repurchase program. Under the new program, Ashland’s common shares may be repurchased in open market transactions, privately negotiated transactions or pursuant to one or more accelerated stock repurchase programs or Rule 10b5-1 plans. As of June 30, 2018, $1 billion remained available for repurchase under this authorization.

Stockholder dividends

In May 2018, the Board of Directors of Ashland announced a quarterly cash dividend of 25 cents per share to eligible stockholders at record, which represented an increase from the previous quarterly cash dividend of 22.5 cents per share. This dividend was paid in the third quarter of fiscal 2018.

In May 2017, subsequent to the final distribution of Valvoline Inc.'s common stock, the Board of Directors of Ashland announced a quarterly cash dividend of 22.5 cents per share to eligible stockholders at record which was paid for quarterly dividends in the first and second quarters of fiscal 2018 and the third and fourth quarters of fiscal 2017. This represented a reduction from the previous quarterly dividend of 39 cents per share which was paid for quarterly dividends in the first and second quarters of fiscal 2017.

Accumulated other comprehensive income (loss)

Components of other comprehensive income (loss) recorded in the Statements of Consolidated Comprehensive Income (Loss) are presented below, before tax and net of tax effects.

	2018			2017		
(In millions)	Before tax	Tax (expense) benefit	Net of tax	Before tax	Tax (expense) benefit	Net of tax
Three months ended June 30						
Other comprehensive income (loss)						
Unrealized translation gain (loss)	$ (140)	$ —	$ (140)	$ 107	$ (2)	$ 105
Amortization of unrecognized prior service credit (a)	—	—	—	(1)	1	—
Net change in available-for-sale securities:						
Unrealized gain	4	(2)	2	6	(2)	4
Total other comprehensive income (loss)	$ (136)	$ (2)	$ (138)	$ 112	$ (3)	$ 109
Nine months ended June 30						
Other comprehensive income (loss)						
Unrealized translation gain (loss)	$ (82)	$ —	$ (82)	$ 15	$ 4	$ 19
Amortization of unrecognized prior service credit (a)	—	—	—	(7)	3	(4)
Net change in available-for-sale securities:						
Unrealized gain	10	(3)	7	15	(4)	11
Reclassification adjustment for gains included in net income	(4)	1	(3)	(2)	1	(1)
Total other comprehensive income (loss)	$ (76)	$ (2)	$ (78)	$ 21	$ 4	$ 25

(a) For the three and nine months ended June 30, 2017, the amortization of unrecognized prior services credits was related to pension and other postretirement benefit plans that transferred to Valvoline and was classified within the discontinued operations caption on the Statements of Consolidated Comprehensive Income (Loss).

NOTE N – STOCK INCENTIVE PLANS

Ashland has stock incentive plans under which key employees or directors are granted stock appreciation rights (SARs), performance awards or nonvested stock awards. Each program is typically a long-term incentive plan designed to link employee compensation with increased shareholder value or reward superior performance and encourage continued employment with Ashland. Ashland recognizes compensation expense for the grant date fair value of stock-based awards over the applicable vesting period.

The components of Ashland's pre-tax stock-based compensation expense included in continuing operations are as follows:

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018 (a)	2017 (b)	2018 (a)	2017 (b)
SARs	$ 2	$ 2	$ 5	$ 4
Nonvested stock awards	6	4	17	11
Performance share awards	4	2	10	6
	$ 12	$ 8	$ 32	$ 21

(a) Included $3 million and $7 million of expense related to cash-settled nonvested restricted stock awards and $2 million and $5 million of expense related to cash-settled performance units during the three and nine months ended June 30, 2018, respectively.
(b) Included $2 million and $4 million of expense related to cash-settled nonvested restricted stock awards and $1 million and $3 million of expense related to cash-settled performance units during the three and nine months ended June 30, 2017, respectively.

SARs

SARs are granted to employees or directors at a price equal to the fair market value of the stock on the date of grant and typically become exercisable over periods of one to three years. Unexercised SARs lapse ten years and one month after the date of grant. No SARs were granted for the three months ended June 30, 2018 and 2017. SARs granted for the nine months ended June 30, 2018 and 2017 were 470 thousand and

422 thousand, respectively. As of June 30, 2018, there was $9 million of total unrecognized compensation costs related to SARs. That cost is expected to be recognized over a weighted-average period of 2.0 years. Ashland estimates the fair value of SARs granted using the Black-Scholes option-pricing model. This model requires several assumptions, which Ashland has developed and updates based on historical trends and current market observations. The accuracy of these assumptions is critical to the estimate of fair value for these equity instruments.

Nonvested stock awards

Nonvested stock awards are granted to employees or directors at a price equal to the fair market value of the stock on the date of grant and generally vest over a one-to-five-year period. However, such shares or units are subject to forfeiture upon termination of service before the vesting period ends. Only nonvested stock awards granted in the form of shares entitle employees or directors to vote the shares. Dividends on nonvested stock awards granted are in the form of additional units or shares of nonvested stock awards, which are subject to vesting and forfeiture provisions.

Stock-settled nonvested stock awards

Nonvested stock awards granted in the form of shares were two thousand and zero for the three months ended June 30, 2018 and 2017, respectively, and 146 thousand and 84 thousand for the nine months ended June 30, 2018 and 2017, respectively. As of June 30, 2018, there was $8 million of total unrecognized compensation costs related to these nonvested stock awards. That cost is expected to be recognized over a weighted-average period of 2.0 years.

Cash-settled nonvested stock awards

Certain nonvested stock awards are granted to employees and are settled in cash upon vesting. As of June 30, 2018, 195 thousand cash-settled nonvested stock awards were outstanding. The value of these cash-settled nonvested stock awards changes in connection with changes in the fair market value of the Ashland Common Stock. These awards generally vest over a period of three years. The expense recognized related to cash-settled nonvested stock awards was $3 million and $2 million during the three months ended June 30, 2018 and 2017, respectively, and $7 million and $4 million during the nine months ended June 30, 2018 and 2017, respectively.

Executive performance incentive and retention program

During 2016, certain executives were granted performance-based restricted shares of Ashland in order to provide an incentive to remain employed in the period after the full separation of Ashland and Valvoline. At June 30, 2018, there were 61 thousand shares outstanding in connection with these awards, which includes forfeitures and the cumulative value of forfeitable dividends. The expense recognition for these awards commenced upon completing the full separation of Valvoline which occurred on May 12, 2017, as discussed further in Note B, and resulted in $1 million and $4 million of expense for the three and nine months ended June 30, 2018, respectively, and $1 million of expense for the three and nine months ended June 30, 2017. As of June 30, 2018, there was $5 million of total unrecognized compensation costs related to these awards.

Performance awards

Ashland sponsors a long-term incentive plan that awards performance shares/units to certain key employees that are primarily tied to Ashland’s overall financial performance relative to internal targets. Additionally, certain outstanding performance awards are tied to Ashland's overall financial performance relative to the financial performance of selected industry peer groups. Awards are granted annually, with each award covering a three-year vesting period.

For awards granted in fiscal 2016, each performance share/unit is convertible to one share of Ashland Common Stock. These plans are recorded as a component of stockholders’ equity in the Condensed Consolidated Balance Sheets. Performance measures used to determine the actual number of performance shares issuable upon vesting include an equal weighting of Ashland’s total shareholder return (TSR) performance and Ashland’s return on investment (ROI) performance as compared to the internal targets. TSR relative to peers is considered a market condition while ROI is considered a performance condition under applicable U.S. GAAP.

For awards granted in fiscal 2017 and 2018, the performance measure used to determine the actual number of performance shares/units issuable upon vesting is the financial performance of Ashland compared to award targets. The financial performance award metric is considered a performance condition under applicable U.S. GAAP. Additionally, the actual number of performance shares/units issuable upon vesting can be potentially increased or decreased based on a TSR performance modifier relative to peers of Ashland. For awards granted in fiscal 2017, each performance unit will be settled in cash based on the fair value of Ashland common stock. For awards granted in fiscal 2018, each performance share/unit is convertible to one share of Ashland Common Stock.

Nonvested performance shares/units do not entitle employees to vote the shares or to receive any dividends thereon. No performance shares/units were granted for the three months ended June 30, 2018 and 2017. Performance shares/units granted for the nine months ended June 30, 2018 and 2017 were 101 thousand and 56 thousand, respectively. As of June 30, 2018, there was $14 million of total unrecognized compensation costs related to performance shares/units. That cost is expected to be recognized over a weighted-average period of 1.8 years.

NOTE O – REPORTABLE SEGMENT INFORMATION

Ashland determines its reportable segments based on how operations are managed internally for the products and services sold to customers, including how the results are reviewed by the chief operating decision maker, which includes determining resource allocation methodologies used for reportable segments. Operating income is the primary measure on the Statements of Consolidated Comprehensive Income (Loss) that is reviewed by the chief operating decision maker in assessing each reportable segment's financial performance. Ashland does not aggregate operating segments to arrive at these reportable segments.

Change in Reportable Segments

Subsequent to completing the separation from Valvoline Inc. on May 12, 2017, Ashland's operations are managed by the chief operating decision maker within the following three reportable segments: Specialty Ingredients, Composites and Intermediates and Solvents. As a result, the financial information for the new reportable segments (Composites and Intermediates and Solvents) has been disclosed for all periods presented. Prior to the separation from Valvoline Inc., Composites and Intermediates and Solvents were reporting units included within the previous Ashland Performance Materials reportable segment.

Reportable segment business descriptions

Specialty Ingredients is a global leader in cellulose ethers, vinyl pyrrolidones and biofunctionals. It offers industry-leading products, technologies and resources for solving formulation and product-performance challenges. Specialty Ingredients uses natural, synthetic and semisynthetic polymers derived from cellulose ethers, vinyl pyrrolidones, acrylic polymers, polyester and polyurethane-based adhesives, and plant and seed extract. Specialty Ingredients’ end markets offer comprehensive and innovative solutions for today’s demanding consumer and industrial applications. Key customers include: pharmaceutical companies; makers of personal care products, food and beverages; makers of nutraceuticals and supplements; manufacturers of paint, coatings and construction materials; packaging and converting; and oilfield service companies. On May 17, 2017, Ashland completed its acquisition of the stock of Pharmachem, a leading provider of quality ingredients to the global health and wellness industries and high-value differentiated products to fragrance and flavor houses. At the acquisition date, Pharmachem had 14 manufacturing facilities located in the United States and Mexico. New Jersey-based Pharmachem develops, manufactures and supplies custom and branded nutritional and fragrance products. See Note C for more information.

Composites is a global leader in unsaturated polyester resins, vinyl ester resins and gelcoats. The Composites business manufactures and sells a broad range of general-purpose and high-performance grades of unsaturated polyester and vinyl ester resins, gelcoats and low-profile additives for the reinforced plastics industry. The products in the Composites business provide an array of functional properties including corrosion resistance, fire retardance, ultraviolet resistance, water and chemical resistance, high mechanical strength, impact and scratch resistance and high strength-to-weight ratios. Key end markets include transportation, construction, marine and infrastructure. In addition, the business manufactures and sells molten maleic anhydride for the manufacture of a variety of products such as unsaturated polyester resins, copolymers, lubricating oil additives, alkenyl succinic anhydrides, malic acid, fumaric acid and numerous derivative chemicals. Key markets include composites, personal care, dispersants and paper sizing.

Intermediates and Solvents is a leading producer of 1,4 butanediol (BDO) and related derivatives, including tetrahydrofuran and n-methylpyrrolidone. These products are used as chemical intermediates in the production of engineering polymers and polyurethanes, and as specialty process solvents in a wide array of applications including electronics, pharmaceuticals, water filtration membranes and more. Butanediol is also supplied to Ashland's Specialty Ingredients business for use as a raw material.

Unallocated and Other generally includes items such as certain significant company-wide restructuring activities, including internal separation costs, and legacy costs or adjustments that relate to divested businesses that are no longer operated by Ashland.

Reportable segment results

Results of Ashland's reportable segments are presented based on its management and internal accounting structure. The structure is specific to Ashland; therefore, the financial results of Ashland's reportable segments are not necessarily comparable with similar information for other comparable companies. Ashland allocates all significant costs to its reportable segments except for certain significant company-wide restructuring activities and other costs or adjustments that relate to former businesses that Ashland no longer operates. The service cost component of pension and other postretirement benefits costs is allocated to each reportable segment on a ratable basis; while the remaining components of pension and other postretirement benefits costs are recorded within the other net periodic benefit income caption on the Statements of Consolidated Comprehensive Income (Loss). Ashland refines its expense allocation methodologies to the reportable segments from time to time as internal accounting practices are improved, more refined information becomes available and the industry or market changes. Significant revisions to Ashland's methodologies are adjusted for all segments on a retrospective basis.

The following table presents various financial information for each reportable segment for the three and nine months ended June 30, 2018 and 2017.

	Three months ended June 30		Nine months ended June 30	
(In millions - unaudited)	2018	2017	2018	2017
SALES				
Specialty Ingredients	$ 638	$ 591	$ 1,834	$ 1,617
Composites	250	209	706	561
Intermediates and Solvents	83	70	247	202
	$ 971	$ 870	$ 2,787	$ 2,380
OPERATING INCOME (LOSS)				
Specialty Ingredients	$ 91	$ 58	$ 222	$ 172
Composites	22	22	59	50
Intermediates and Solvents	9	2	22	(8)
Unallocated and other	(56)	(45)	(103)	(109)
	$ 66	$ 37	$ 200	$ 105

FORWARD-LOOKING STATEMENTS

This Form 10-Q contains forward-looking statements including, without limitation, statements made under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operation" (MD&A), within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended. Ashland has identified some of these forward-looking statements with words such as "anticipates," "believes," "expects," "estimates," "is likely," "predicts," "projects," "forecasts," "objectives," "may," "will," "should," "plans" and "intends" and the negative of these words or other comparable terminology. In addition, Ashland may from time to time make forward-looking statements in its annual reports, quarterly reports and other filings with the Securities and Exchange Commission (SEC), news releases and other written and oral communications. These forward-looking statements are based on Ashland's expectations and assumptions, as of the date such statements are made, regarding Ashland's future operating performance and financial condition, as well as the economy and other future events or circumstances. Ashland's expectations and assumptions include, without limitation, those mentioned within the MD&A, internal forecasts and analyses of current and future market conditions and trends, management plans and strategies, operating efficiencies and economic conditions (such as prices, supply and demand, cost of raw materials, and the ability to recover raw-material cost increases through price increases), and risks and uncertainties associated with the following: the program to eliminate certain existing corporate and Specialty Ingredients expenses (including the possibility that such cost eliminations may not occur or may take longer to implement than anticipated), the expected divestiture of its Composites segment and the butanediol (BDO) manufacturing facility in Marl, Germany, and related merchant Intermediates and Solvents (I&S) products (including, in each case, the possibility that a transaction may not occur or that, if a transaction does occur, Ashland may not realize the anticipated benefits from such transaction), the impact of acquisitions and/or divestitures Ashland has made or may make, including the acquisition of Pharmachem (including the possibility that Ashland may not realize the anticipated benefits from such transactions); Ashland's substantial indebtedness (including the possibility that such indebtedness and related restrictive covenants may adversely affect Ashland's future cash flows, results of operations, financial condition and its ability to repay debt); Ashland's ability to generate sufficient cash to finance its stock repurchase plans; the potential that Ashland does not realize all of the expected benefits of the separation of its Valvoline business; the potential that the Tax Cuts and Jobs Act enacted on December 22, 2017 will have a negative impact on Ashland's financial results, and severe weather, natural disasters, cyber events and legal proceedings and claims (including product recalls, environmental and asbestos matters). Various risks and uncertainties may cause actual results to differ materially from those stated, projected or implied by any forward-looking statements, including, without limitation, risks and uncertainties affecting Ashland that are contained in "Use of estimates, risks and uncertainties" in Note A of Notes to Consolidated Financial Statements and in Item 1A in its most recent Form 10-K filed with the SEC, which is available on Ashland's website at http://investor.ashland.com or on the SEC's website at http://www.sec.gov. Ashland believes its expectations and assumptions are reasonable, but there can be no assurance that the expectations reflected herein will be achieved. Unless legally required, Ashland undertakes no obligation to update any forward-looking statements made in this Form 10-Q whether as a result of new information, future events or otherwise. Information on Ashland's website is not incorporated into or a part of this Form 10-Q.

ASHLAND GLOBAL HOLDINGS INC. AND CONSOLIDATED SUBSIDIARIES
MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion should be read in conjunction with the Condensed Consolidated Financial Statements and the accompanying Notes to Condensed Consolidated Financial Statements herein.

BUSINESS OVERVIEW

Ashland profile

Ashland is a premier global leader in providing specialty chemical solutions to customers in a wide range of consumer and industrial markets, including adhesives, architectural coatings, construction, energy, food and beverage, personal care and pharmaceutical. With approximately 6,500 employees worldwide, Ashland serves customers in more than 100 countries.

Ashland's sales generated outside of North America were 60% and 59% for the three months ended June 30, 2018 and 2017, respectively, and 60% for both the nine months ended June 30, 2018 and 2017. Sales by region expressed as a percentage of total consolidated sales for the three and nine months ended June 30 were as follows:

	Three months ended June 30		Nine months ended June 30	
Sales by Geography	2018	2017	2018	2017
North America (a)	40%	41%	40%	40%
Europe	35%	33%	35%	32%
Asia Pacific	17%	18%	17%	19%
Latin America & other	8%	8%	8%	9%
	100%	100%	100%	100%

(a) Ashland includes only U.S. and Canada in its North America designation.

Reportable segments

Ashland's businesses are managed within the following three reportable segments: Specialty Ingredients, Composites and Intermediates and Solvents. For further descriptions of each reportable segment, see "Results of Operations – Reportable Segment Review" beginning on page 50.

The contribution to sales by each reportable segment expressed as a percentage of total consolidated sales for the three and nine months ended June 30 were as follows:

	Three months ended June 30		Nine months ended June 30	
Sales by Reportable Segment	2018	2017	2018	2017
Specialty Ingredients	66%	68%	66%	68%
Composites	26%	24%	25%	24%
Intermediates and Solvents	8%	8%	9%	8%
	100%	100%	100%	100%

KEY DEVELOPMENTS

Business results

Ashland's net income was $36 million in the current quarter compared to a net loss of $30 million in the prior year quarter. Ashland's Adjusted EBITDA increased by 17% to $189 million (see U.S. GAAP reconciliation on page 42). The increase in Adjusted EBITDA was primarily due to growth at both the Specialty Ingredients and Intermediates and Solvents reportable segments. Excluding the acquisition of Pharmachem, the increase in profitability for Specialty Ingredients compared to the prior year quarter was primarily driven by improved volume and mix as well as favorable foreign currency exchange. The improvement in profitability for Intermediates and Solvents was primarily driven by improved product pricing.

Composites segment and Intermediates and Solvents plant

On March 20, 2018, Ashland announced that it will explore strategic alternatives for its Composites segment and the Intermediates and Solvents manufacturing facility in Marl, Germany. Ashland currently expects to divest these assets, which will streamline its business portfolio, focusing it more on the higher margin, less volatile and more specialized portions of the business.

EBITDA Margin Acceleration Plan

In early May 2018, Ashland announced a program to accelerate EBITDA margin growth by creating a leaner, more cost competitive company with improved operating efficiency, faster decision making and a stronger customer focus. Under this program, Ashland intends to eliminate a total of $120 million of existing allocated costs, direct expenses within Specialty Ingredients SG&A, and facility-related costs as follows:

- Approximately $70 million of costs allocated to the Composites business and to the butanediol manufacturing facility in Marl, Germany, are expected to be offset or eliminated through transfers and reductions. This reduction is intended to eliminate stranded costs.
- Approximately $50 million of additional costs are expected to be eliminated to drive improved profitability in Specialty Ingredients and accelerate achievement of its adjusted EBITDA margin target of 25-27 percent.

Ashland continues to expect to achieve the full $120 million in run-rate savings by the end of calendar year 2019. An initial $20 million in annualized run-rate savings under this program is expected by the end of the September 2018 quarter. An additional $30 million in run-rate savings is expected in the December 2018 quarter, bringing the total annualized run-rate to $50 million by the end of calendar 2018.

Tax law changes

The Tax Cuts and Jobs Act (Tax Act) was enacted on December 22, 2017. The Tax Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and creates new taxes on certain foreign sourced earnings. At June 30, 2018, Ashland has not completed the internal accounting assessment for the tax effects of enactment of the Tax Act; however, Ashland determined a reasonable estimate of the effects on its existing deferred tax balances and the one-time transition tax. Ashland recognized a provisional amount for the nine months ended June 30, 2018, which is included as a component of income tax expense from continuing operations. Ashland recorded net unfavorable tax adjustments of $16 million primarily related to deferred tax rate changes and a one-time transition tax assessed on foreign cash and unremitted earnings.

Stock repurchase program

During March 2018, Ashland's Board of Directors approved a new $1 billion stock repurchase program, which replaced the 2015 stock repurchase program that had $500 million of authorization remaining. Under the new program, Ashland's common shares may be repurchased in open market transactions, privately negotiated transactions or pursuant to one or more accelerated stock repurchase programs or Rule 10b5-1 plans.

Stockholder dividends

In May 2018, the Board of Directors of Ashland announced a quarterly cash dividend of 25 cents per share, which represented an increase from the previous quarterly cash dividend of 22.5 cents per share. This dividend was paid in the third quarter of fiscal 2018.

RESULTS OF OPERATIONS – CONSOLIDATED REVIEW

Use of non-GAAP measures

Ashland has included within this document the following non-GAAP measures, on both a consolidated and reportable segment basis, which are not defined within U.S. GAAP and do not purport to be alternatives to net income or cash flows from operating activities as a measure of operating performance or cash flows:

- EBITDA - net income (loss), plus income tax expense (benefit), net interest and other financing expenses, and depreciation and amortization.
- Adjusted EBITDA - EBITDA adjusted for noncontrolling interests, discontinued operations, net gain (loss) on acquisitions and divestitures, other income and (expense) and key items (including the remeasurement gains and losses related to pension and other postretirement plans).
- Adjusted EBITDA margin - Adjusted EBITDA, which can include pro forma adjustments, divided by sales.
- Adjusted diluted earnings per share (EPS) - income (loss) from continuing operations, adjusted for key items, net of tax, divided by the average outstanding diluted shares for the applicable period.
- Free cash flow - operating cash flows less capital expenditures and certain other adjustments as applicable.

Management believes the use of EBITDA and Adjusted EBITDA measures on a consolidated and reportable segment basis assists investors in understanding the ongoing operating performance by presenting comparable financial results between periods. Ashland believes that by removing the impact of depreciation and amortization and excluding certain non-cash charges, amounts spent on interest and taxes and certain other charges that are highly variable from year to year, EBITDA and Adjusted EBITDA provide Ashland's investors with performance measures that reflect the impact to operations from trends in changes in sales, margin and operating expenses, providing a perspective not immediately apparent from net income and operating income. The adjustments Ashland makes to derive the non-GAAP measures of EBITDA and Adjusted EBITDA exclude items which may cause short-term fluctuations in net income and operating income and which Ashland does not consider to be the fundamental attributes or primary drivers of its business. EBITDA and Adjusted EBITDA provide disclosure on the same basis as that used by Ashland's management to evaluate financial performance on a consolidated and reportable segment basis and provide consistency in our financial reporting, facilitate internal and external comparisons of Ashland's historical operating performance and its business units and provide continuity to investors for comparability purposes.

The Adjusted diluted EPS metric enables Ashland to demonstrate what effect key items have on an earnings per diluted share basis by taking income (loss) from continuing operations, adjusted for key items after tax that have been identified in the Adjusted EBITDA table, and dividing by the average outstanding diluted shares for the applicable period. Ashland’s management believes this presentation is helpful to illustrate how the key items have impacted this metric during the applicable period.

The free cash flow metric enables Ashland to provide a better indication of the ongoing cash being generated that is ultimately available for both debt and equity holders as well as other investment opportunities. Unlike cash flow provided by operating activities, free cash flow includes the impact of capital expenditures from continuing operations, providing a more complete picture of cash generation. Free cash flow has certain limitations, including that it does not reflect adjustment for certain non-discretionary cash flows such as mandatory debt repayments. The amount of mandatory versus discretionary expenditures can vary significantly between periods.

Although Ashland provides forward-looking guidance for Adjusted EBITDA, Adjusted diluted EPS and free cash flow, Ashland is not reaffirming or providing forward-looking guidance for U.S. GAAP-reported financial measures or a reconciliation of forward-looking non-GAAP financial measures to the most directly comparable U.S. GAAP measure because it is unable to predict with reasonable certainty the ultimate outcome of certain significant items that affect these metrics such as domestic and international economic, political, legislative, regulatory and legal actions. In addition, certain economic conditions, such as recessionary trends, inflation, interest and monetary exchange rates, government fiscal policies and changes in the prices of certain key raw materials, can have a significant effect on operations and are difficult to predict with certainty.

These non-GAAP measures should be considered supplemental in nature and should not be construed as more significant than comparable measures defined by U.S. GAAP. Limitations associated with the use of these non-GAAP measures include that these measures do not present all of the amounts associated with our results as determined in accordance with U.S. GAAP. The non-GAAP measures provided are used by Ashland management and may not be determined in a manner consistent with the methodologies used by other companies. EBITDA and Adjusted EBITDA provide a supplemental presentation of Ashland’s operating performance on a consolidated and reportable segment basis. Adjusted EBITDA generally includes adjustments for items that impact comparability between periods. In addition, certain financial covenants related to Ashland’s 2017 Credit Agreement are based on similar non-GAAP measures and are defined further in the sections that reference this metric.

In accordance with U.S. GAAP, Ashland recognizes actuarial gains and losses for defined benefit pension and other postretirement benefit plans annually in the fourth quarter of each fiscal year and whenever a plan is determined to qualify for a remeasurement during a fiscal year. Actuarial gains and losses occur when actual experience differs from the estimates used to allocate the change in value of pension and other postretirement benefit plans to expense throughout the year or when assumptions change, as they may each year. Significant factors that can contribute to the recognition of actuarial gains and losses include changes in discount rates used to remeasure pension and other postretirement obligations on an annual basis or upon a qualifying remeasurement, differences between actual and expected returns on plan assets and other changes in actuarial assumptions, for example, the life expectancy of plan participants. Management believes Adjusted EBITDA, which includes the expected return on pension plan assets yet excludes both the actual return on pension plan assets and the impact of actuarial gains and losses, provides investors with a meaningful supplemental presentation of Ashland’s operating performance (see the Adjusted EBITDA reconciliation table on page 42 for additional details on exact amounts included within this non-GAAP measure related to pension and other postretirement plans.) Management believes these actuarial gains and losses are primarily financing activities that are more reflective of changes in current conditions in global financial markets (and in particular interest rates) that are not directly related to the underlying business. For further information on the actuarial assumptions and plan assets referenced above, see Note M of the Notes to Consolidated Financial Statements within the 2017 Form 10-K.

Consolidated review

Net income

Ashland’s net income is primarily affected by results within operating income, net interest and other financing expense, income taxes, discontinued operations and other significant events or transactions that are unusual or nonrecurring.

Current Quarter - Key financial results for the three months ended June 30, 2018 and 2017 included the following:

- Ashland’s net income (loss) attributable to Ashland amounted to income of $36 million and a loss of $33 million for the three months ended June 30, 2018 and 2017, respectively, or income of $0.56 and a loss of $0.54 diluted earnings per share, respectively.
- Ashland’s net income attributable to noncontrolling interest amounted to $3 million for the three months ended June 30, 2017 and reflects the noncontrolling interest of Valvoline Inc. before the final separation occurred on May 12, 2017.
- Discontinued operations, which are reported net of taxes, resulted in zero and a loss of $14 million during the three months ended June 30, 2018 and 2017, respectively. The activity within discontinued operations for the three months ended June 30, 2017 includes the operating results of Valvoline Inc. for the period prior to the final separation on May 12, 2017.
- Income (loss) from continuing operations, which excludes results from discontinued operations, amounted to income of $36 million and a loss of $16 million for the three months ended June 30, 2018 and 2017, respectively.
- The effective income tax rates were a benefit of 16% and 20% for the three months ended June 30, 2018 and 2017, respectively, and were impacted by certain tax discrete items in both the current and prior year quarters.
- Ashland incurred pretax net interest and other financing expense of $33 million and $51 million for the three months ended June 30, 2018 and 2017, respectively.
- Operating income was $66 million and $37 million for the three months ended June 30, 2018 and 2017, respectively.

Year-to-Date - Key financial results for the nine months ended June 30, 2018 and 2017 included the following:

- Ashland’s net income attributable to Ashland amounted to $104 million and $58 million for the nine months ended June 30, 2018 and 2017, respectively, or $1.64 and $0.93 diluted earnings per share, respectively.
- Ashland’s net income attributable to noncontrolling interest amounted to $27 million for the nine months ended June 30, 2017 and reflects the noncontrolling interest of Valvoline Inc. before the final distribution occurred on May 12, 2017.
- Discontinued operations, which are reported net of taxes, resulted in income of $9 million and $138 million during the nine months ended June 30, 2018 and 2017, respectively. The activity within discontinued operations for the nine months ended June 30, 2017 includes the operating results of Valvoline Inc. for the period prior to the final separation on May 12, 2017.
- Income (loss) from continuing operations, which excludes results from discontinued operations, amounted to income of $95 million and a loss of $53 million for the nine months ended June 30, 2018 and 2017, respectively.

- The effective income tax rates were 10% and 48% for the nine months ended June 30, 2018 and 2017, respectively, and were impacted by certain tax discrete items in both the current and prior year periods.
- Ashland incurred pretax net interest and other financing expense of $93 million and $203 million for the nine months ended June 30, 2018 and 2017, respectively. The prior year period was impacted by $92 million of net charges and fees associated with debt financing activity.
- Operating income was $200 million and $105 million for the nine months ended June 30, 2018 and 2017, respectively.

For further information on the items reported above, see the discussion in the comparative Statements of Consolidated Comprehensive Income (Loss) caption review analysis.

Operating income

Current Quarter - Operating income amounted to $66 million and $37 million for the three months ended June 30, 2018 and 2017, respectively. The current and prior year quarters' operating income included certain key items that were excluded to arrive at Adjusted EBITDA. These key items are summarized as follows:

- Separation, restructuring and other costs and accelerated depreciation include the following:
  - a lease abandonment charge of $7 million related to the exit from an office building during the three months ended June 30, 2018;
  - $5 million of costs related to the exploration of strategic alternatives for the Composites segment and Marl facility during the three months ended June 30, 2018;
  - $2 million of accelerated depreciation related to the termination of a contract at a manufacturing facility during the three months ended June 30, 2018;
  - $1 million and $28 million of costs related to the separation of Valvoline during the three months ended June 30, 2018 and 2017, respectively;
  - $1 million of integration costs related to the acquisition of Pharmachem for both the three months ended June 30, 2018 and 2017, respectively; and
  - $13 million of restructuring charges for a plant closure during the three months ended June 30, 2017 (which included $11 million of accelerated depreciation);
- $33 million and $9 million of environmental expense during the three months ended June 30, 2018 and 2017, respectively (see Note K for more information);
- $2 million and $6 million of a net loss on acquisitions and divestitures during the three months ended June 30, 2018 and 2017, respectively; and
- $1 million of noncash charges during the three months ended June 30, 2017 related to the fair value assessment of inventory acquired from Pharmachem at the date of acquisition.

Operating income for the three months ended June 30, 2018 and 2017 included depreciation and amortization of $74 million and $72 million, respectively (which excluded accelerated depreciation of $2 million and $11 million for the three months ended June 30, 2018 and 2017, respectively).

Year-to-Date - Operating income amounted to $200 million and $105 million for the nine months ended June 30, 2018 and 2017, respectively. The current and prior year periods' operating income included certain key items that were excluded to arrive at Adjusted EBITDA. In addition to the key items within the current and prior year quarters previously discussed, the following are also excluded on a year-to-date basis:

- Separation, restructuring and other costs and accelerated depreciation include the following additional key items:

    - an additional $8 million and $41 million of costs related to the separation of Valvoline during the nine months ended June 30, 2018 and 2017, respectively (which included $1 million of accelerated depreciation during the nine months ended June 30, 2017);
    - $8 million of accelerated depreciation related to the planned closure of an office building during the nine months ended June 30, 2018;
    - an additional $6 million of integration costs related to the acquisition of Pharmachem for the nine months ended June 30, 2018;
    - an additional $4 million of accelerated depreciation for the termination of a contract at a manufacturing facility during the nine months ended June 30, 2018; and
    - $1 million of severance and other restructuring charges for the closure of a manufacturing plant during the nine months ended June 30, 2018;
- an additional $11 million of environmental reserve charges during the nine months ended June 30, 2018;
- $5 million of income related to proceeds from a legal settlement during the nine months ended June 30, 2018;
- a $5 million charge for a legal reserve during the nine months ended June 30, 2017; and
- a remeasurement gain of $2 million associated with the discontinuation of certain post-employment health and life insurance benefits during the nine months ended June 30, 2017.

Operating income for the nine months ended June 30, 2018 and 2017 included depreciation and amortization of $222 million and $206 million, respectively (which excluded accelerated depreciation of $14 million and $12 million for the nine months ended June 30, 2018 and 2017, respectively).

EBITDA, Adjusted EBITDA and Key Items

EBITDA totaled $138 million and $89 million for the three months ended June 30, 2018 and 2017, respectively, and $429 million and $445 million for the nine months ended June 30, 2018 and 2017, respectively. EBITDA and Adjusted EBITDA results in the table below have been prepared to illustrate the ongoing effects of Ashland’s operations, which exclude certain key items and the impact of Ashland's previous noncontrolling interest in Valvoline Inc.

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018	2017	2018	2017
Net income (loss)	$ 36	$ (30)	$ 104	$ 85
Income tax expense (benefit)	(5)	(4)	10	(49)
Net interest and other financing expense	33	51	93	203
Depreciation and amortization (a)	74	72	222	206
EBITDA	138	89	429	445
Loss (income) from discontinued operations (net of tax)	—	14	(9)	(138)
Key items included in EBITDA:				
Separation, restructuring and other costs	14	31	29	71
Accelerated depreciation	2	11	14	12
Environmental reserve adjustments	33	9	44	9
Net loss on acquisitions and divestitures	2	6	2	6
Inventory fair value adjustment	—	1	—	1
Legal settlement/reserve	—	—	(5)	5
Gain on post-employment plan remeasurement	—	—	—	(2)
Total key items included in EBITDA	51	58	84	102
Adjusted EBITDA	$ 189	$ 161	$ 504	$ 409
Total key items included in EBITDA	$ 51	$ 58	$ 84	$ 102
Debt refinancing costs (b)	1	20	1	112
Total key items, before tax	$ 52	$ 78	$ 85	$ 214

(a) Excludes $2 million and $11 million of accelerated depreciation for the three months ended June 30, 2018 and 2017, respectively, and $14 million and $12 million of accelerated depreciation for the nine months ended June 30, 2018 and 2017, respectively.

(b) Debt refinancing costs during the three and nine months ended June 30, 2018 primarily included a $1 million charge for new debt issuance costs incurred with the re-pricing of the 2017 TLB Facility. Debt refinancing costs during the three months ended June 30, 2017 included an $11 million charge for early redemption premium payments for the 2018 notes and a $9 million charge for debt issuance costs resulting from financing activity for the 2017 Credit Agreement. Additional debt refinancing costs during the nine months ended June 30, 2017 primarily included $92 million of accelerated accretion from the tender offer of the 2029 notes. All debt refinancing costs were recorded within the net interest and other financing expense caption on the Statement of Consolidated Comprehensive Income (Loss).

Diluted EPS and Adjusted Diluted EPS

The following table reflects the U.S. GAAP calculation for the income (loss) from continuing operations adjusted for the cumulative diluted EPS effect for key items after tax that have been identified in the Adjusted EBITDA table in the previous section. Key items are defined as the financial effects from significant transactions that may have caused short-term fluctuations in net income and/or operating income which Ashland believes do not accurately reflect Ashland’s underlying business performance and trends. The Adjusted EPS for the income (loss) from continuing operations in the following table has been prepared to illustrate the ongoing effects of Ashland’s operations. Management believes investors and analysts use this financial measure in assessing Ashland's business performance and that presenting this non-GAAP measure on a consolidated basis assists investors in better understanding Ashland’s ongoing business performance and enhances their ability to compare period-to-period financial results.

	Three months ended June 30		Nine months ended June 30	
	2018	2017	2018	2017
Diluted EPS from continuing operations (as reported)	$ 0.56	$ (0.26)	$ 1.49	$ (0.85)
Key items, before tax:				
Separation, restructuring and other costs	0.26	0.67	0.67	1.35
Environmental reserve adjustments	0.51	0.15	0.68	0.15
Legal settlement/reserve	—	—	(0.07)	0.07
Inventory fair value adjustment	—	0.02	—	0.02
Debt refinancing costs	0.02	0.32	0.02	1.78
Gain on post-employment plan remeasurement	—	—	—	(0.04)
Net loss on acquisitions and divestitures	0.04	0.09	0.04	0.09
Key items, before tax	0.83	1.25	1.34	3.42
Tax effect of key items (a)	(0.20)	(0.34)	(0.34)	(1.11)
Key items, after tax	0.63	0.91	1.00	2.31
Tax specific key items:				
Deferred tax rate changes	—	—	(2.05)	—
One-time transition tax	—	—	2.23	—
Valuation allowance	(0.06)	—	(0.06)	—
Valvoline separation	—	0.18	—	0.20
Tax specific key items (b)	(0.06)	0.18	0.12	0.20
Total key items	0.57	1.09	1.12	2.51
Adjusted diluted EPS from continuing operations (non-GAAP)	$ 1.13	$ 0.83	$ 2.61	$ 1.66

(a) Represents the diluted EPS impact from the tax effect of the key items that are previously identified above.
(b) Represents the diluted EPS impact from tax specific financial transactions, tax law changes or other matters that fall within the definition of key items. For additional explanation of these tax specific key items, see the income tax expense (benefit) discussion within the following caption review section.

Statements of Consolidated Comprehensive Income (Loss) – caption review

A comparative analysis of the Statements of Consolidated Comprehensive Income (Loss) by caption is provided as follows for the three and nine months ended June 30, 2018 and 2017.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Sales	$ 971	$ 870	$ 101	$ 2,787	$ 2,380	$ 407

The following table provides a reconciliation of the change in sales between the three and nine months ended June 30, 2018 and 2017.

(In millions)	Three months ended June 30, 2018	Nine months ended June 30, 2018
Pricing	$ 27	$ 91
Volume	25	60
Acquisitions and divestitures	24	158
Currency exchange	22	84
Product mix	3	14
Change in sales	$ 101	$ 407

<u>Current Quarter</u> - Sales for the current quarter increased $101 million compared to the prior year quarter. Improvements in pricing increased sales by $27 million, or 3%, while higher volumes increased sales by $25 million. The acquisition of Pharmachem within the Specialty Ingredients reportable segment increased

sales by $20 million, while the net impact of other acquisitions and divestitures increased sales by $4 million. Favorable foreign currency exchange increased sales by $22 million and changes in product mix increased sales by $3 million.

Year-to-Date - Sales for the current period increased $407 million compared to the prior year period. The acquisition of Pharmachem within the Specialty Ingredients reportable segment increased sales by $140 million, or 6%, while the net impact of other acquisitions and divestitures increased sales by $18 million. Improvements in pricing increased sales by $91 million, or 4%, while favorable foreign currency exchange increased sales by $84 million. Higher volumes and changes in product mix increased sales by $60 million and $14 million, respectively.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Cost of sales	$ 681	$ 635	$ 46	$ 1,993	$ 1,729	$ 264
Gross profit as a percent of sales	29.9%	27.0%		28.5%	27.4%	

Fluctuations in cost of sales are driven primarily by raw material prices, volume and changes in product mix, currency exchange, acquisitions and divestitures and other certain charges incurred as a result of changes or events within the businesses or restructuring activities. The following table provides a quantified reconciliation of the changes in cost of sales between the three and nine months ended June 30, 2018 and 2017.

(In millions)	Three months ended June 30, 2018	Nine months ended June 30, 2018
Changes in:		
Acquisitions and divestitures	$ 16	$ 119
Currency exchange	16	57
Volume	12	26
Production and raw material costs	9	61
Product mix	6	13
Restructuring activities	(13)	(12)
Change in cost of sales	$ 46	$ 264

Current Quarter - Cost of sales for the current quarter increased $46 million compared to the prior year quarter. The Pharmachem acquisition increased cost of sales by $12 million, or 2%, while the net impact of other acquisitions and divestitures increased cost of sales by $4 million. Unfavorable foreign currency exchange and higher volumes increased cost of sales by $16 million and $12 million, respectively. Unfavorable production costs and changes in product mix increased cost of sales by $9 million and $6 million, respectively.

The prior year quarter included $13 million of restructuring charges related to a plant closure (including $11 million of accelerated depreciation and $2 million of severance and other costs).

Year-to-Date - Cost of sales for the current period increased $264 million compared to the prior year period. The Pharmachem acquisition increased cost of sales by $101 million, or 6%, while the net impact of other acquisitions and divestitures increased cost of sales by $18 million. Unfavorable production costs and foreign currency exchange increased cost of sales by $61 million, or 4%, and $57 million, or 3%, respectively. Higher volumes and changes in product mix increased cost of sales by $26 million and $13 million, respectively.

The current period also included $1 million of severance and other restructuring charges related to a plant closure while the prior year period included $13 million of restructuring charges related to a plant closure (including $11 million of accelerated depreciation and $2 million of severance and other costs).

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Selling, general and administrative expense	$ 203	$ 182	$ 21	$ 537	$ 494	$ 43
As a percent of sales	20.9%	20.9%		19.3%	20.8%	

Current Quarter - Selling, general and administrative expense for the current quarter increased $21 million compared to the prior year quarter with expenses as a percent of sales remaining consistent. Key drivers of the fluctuation in selling, general and administrative expense compared to the prior year quarter were:

- $34 million and $11 million in net environmental-related expenses during the current and prior year quarters, respectively (see Note K for more information);
- a lease abandonment charge of $7 million related to the exit from an office building during the current quarter;
- $5 million of costs related to the potential sale of the Composites segment and Marl facility during the current quarter;
- $3 million of incremental costs related to the acquisition of Pharmachem’s operations;
- an increase of $2 million due to foreign currency exchange in the current quarter; and
- $1 million of costs related to the separation of Valvoline during the current quarter compared to $28 million in the prior year quarter.

Year-to-Date - Selling, general and administrative expense for the current period increased $43 million compared to the prior year period with expenses as a percent of sales decreasing 1.5 percentage points. Key drivers of the fluctuation in selling, general and administrative expense compared to the prior year period were:

- $23 million of incremental costs related to the acquisition of Pharmachem’s operations;
- $53 million and $19 million in net environmental-related expenses during the current and prior year periods, respectively (see Note K for more information);
- an increase of $13 million due to foreign currency exchange in the current period;
- $8 million of accelerated depreciation related to the planned closure of an office building during the current period;
- a lease abandonment charge of $7 million related to the exit from an office building during the current period;
- $7 million of Pharmachem integration costs during the current period compared to $1 million in the prior year period;
- $9 million of costs related to the separation of Valvoline during the current period compared to $69 million in the prior year period; and
- a $5 million charge for a legal reserve during the prior year period.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Research and development expense	$ 21	$ 20	$ 1	$ 64	$ 61	$ 3

Current Quarter - Research and development expense remained relatively consistent with the prior year quarter.

Year-to-Date - Research and development expense remained relatively consistent with the prior year period.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Equity and other income						
Equity income (a)	$ —	$ —	$ —	$ 1	$ —	$ 1
Other income	—	4	(4)	6	9	(3)
	$ —	$ 4	$ (4)	$ 7	$ 9	$ (2)

(a) Activity of $0 denotes value less than $1 million.

Current Quarter – Other income decreased compared to the prior year quarter primarily due to a $2 million charge for the termination of a contract at a manufacturing facility during the current quarter and a $2 million gain on the sale of property during the prior year quarter.

Year-to-Date – Other income decreased compared to the prior year period primarily due to a $6 million charge for the termination of a contract at a manufacturing facility during the current period and a $2 million gain on the sale of property during the prior year period, partially offset by $5 million of proceeds from a legal settlement during the current period.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Net interest and other financing expense (income)						
Interest expense	$ 35	$ 41	$ (6)	$ 103	$ 199	$ (96)
Interest income	(1)	(1)	—	(3)	(3)	—
Available-for-sale securities income	(2)	(2)	—	(10)	(9)	(1)
Other financing costs	1	13	(12)	3	16	(13)
	$ 33	$ 51	$ (18)	$ 93	$ 203	$ (110)

Current Quarter - Net interest and other financing expense decreased by $18 million during the current quarter compared to the prior year quarter. Interest expense decreased primarily due to debt issuance cost charges in the prior year quarter related to financing activity for the 2017 Credit Agreement, which included $7 million of accelerated amortization of previously capitalized debt issuance costs along with $2 million of new debt issuance costs immediately recognized. Interest expense in the current quarter included $1 million of charges for new debt issuance costs incurred with the re-pricing of the 2017 TLB Facility. The decrease in other financing costs was primarily due to an $11 million charge for early redemption premium payments for the 2018 notes during the prior year quarter. Available-for-sale securities income of $2 million during both the current and the prior year quarters represents investment income and realized gains related to restricted investments discussed in Note E of the Notes to Condensed Consolidated Financial Statements.

Year-to-Date - Net interest and other financing expense decreased by $110 million during the current period compared to the prior year period. The current period decrease in interest expense was primarily due to the prior year period including $92 million of accelerated accretion related to the December 2016 tender offer of the 2029 notes as well as charges for debt issuance costs in the prior year quarter as previously discussed. Available-for-sale securities income of $10 million and $9 million during the current and the prior year periods, respectively, represents investment income and realized gains related to restricted investments discussed in Note E of the Notes to Condensed Consolidated Financial Statements.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Other net periodic benefit income	$ —	$ —	$ —	$ 1	$ 3	$ (2)

Current Quarter – Other net periodic benefit income remained consistent with the prior year quarter.

Year-to-Date - The decrease in other net periodic benefit income compared to the prior year period was primarily related to a $2 million gain on the remeasurement of certain post-employment health and life insurance benefit plans that were discontinued during the prior year period.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Net loss on acquisitions and divestitures	$ (2)	$ (6)	$ 4	$ (3)	$ (7)	$ 4

Current Quarter - The activity in the current quarter related to a charge from a previous manufacturing facility. The activity in the prior year quarter primarily included a net charge of $5 million from the acquisition of Pharmachem, a loss of $4 million recognized for the Specialty Ingredients joint venture divestiture in China and a loss of $1 million due to post-closing adjustments for other divestitures, partially offset by a net gain of $4 million from the acquisition of a Composites manufacturing facility.

Year-to-Date - In addition to the items noted in the current quarter discussion, the activity in the current and prior year periods primarily related to post-closing adjustments for certain divestitures.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Income tax expense (benefit)	$ (5)	$ (4)	$ (1)	$ 10	$ (49)	$ 59
Effective tax rate	(16)%	20%		10%	48%	

Current Quarter - Ashland's effective tax rate in any interim period is subject to adjustments related to discrete items and the mix of domestic and foreign operating results. The overall effective tax rate was a benefit of 16% for the three months ended June 30, 2018 and was primarily impacted by income mix as well as $8 million from favorable tax discrete items including a valuation allowance release related to a foreign entity and a domestic tax rate change.

The overall effective tax rate was 20% for the three months ended June 30, 2017 and was impacted by income mix and net unfavorable tax discrete adjustments primarily related to changes in the realization of certain historic tax attributes due to the Valvoline distribution and the Pharmachem acquisition as well as tax on certain restructuring items.

Year-to-Date - The overall effective tax rate was 10% for the nine months ended June 30, 2018. In addition to income mix, the current period tax rate was impacted by net unfavorable tax discrete adjustments of $16 million primarily related to the Tax Act, partially offset by a favorable tax discrete adjustment of $4 million related to a deferred tax rate change for a foreign entity and the current quarter favorable discrete items of $8 million previously noted in the current quarter discussion.

The overall effective tax rate was 48% for the nine months ended June 30, 2017 and was impacted by net unfavorable tax discrete adjustments primarily related to items previously noted in the current quarter discussion, partially offset by a reversal of unrecognized tax benefits due to lapse of the statute of limitations.

Adjusted income tax expense (benefit)

Key items are defined as the financial effects from significant transactions that may have caused short-term fluctuations in net income and/or operating income which Ashland believes do not accurately reflect Ashland's underlying business performance and trends. Tax specific key items are defined as the financial effects from tax specific financial transactions, tax law changes or other matters that fall within the definition of key items as previously described. The effective tax rate, excluding key items, which is a non-

GAAP measure, has been prepared to illustrate the ongoing tax effects of Ashland's operations. Management believes investors and analysts use this financial measure in assessing Ashland's business performance and that presenting this non-GAAP measure on a consolidated basis assists investors in better understanding Ashland's ongoing business performance and enhancing their ability to compare period-to-period financial results.

The effective tax rate during the three and nine months ended June 30, 2018 and 2017 was significantly impacted by the following tax specific key items:

- a favorable adjustment of $4 million related to the release of a valuation allowance for a foreign entity during the three and nine months ended June 30, 2018;
- an unfavorable adjustment of $142 million for a one-time transition tax resulting from the enactment of the Tax Act during the nine months ended June 30, 2018;
- a favorable adjustment of $126 million for the remeasurement of the domestic deferred tax balances resulting from the enactment of the Tax Act during the nine months ended June 30, 2018;
- a favorable adjustment of $4 million related to a deferred tax rate change for a foreign entity during the nine months ended June 30, 2018; and
- favorable adjustments of $11 million and $12 million related to the Valvoline separation during the three and nine months ended June 30, 2017, respectively. These adjustments relate to various tax impacts of the Valvoline separation including state tax costs, foreign tax costs and other tax account adjustments and are not related to Ashland's underlying business.

The following table is a calculation of the effective tax rate, excluding these key items.

(In millions)	Three months ended June 30 2018	Three months ended June 30 2017	Nine months ended June 30 2018	Nine months ended June 30 2017
Income (loss) from continuing operations before income taxes	$ 31	$ (20)	$ 105	$ (102)
Key items (pre-tax) (a)	52	78	85	214
Adjusted income from continuing operations before income taxes	$ 83	$ 58	$ 190	$ 112
Income tax expense (benefit)	$ (5)	$ (4)	$ 10	$ (49)
Income tax rate adjustments:				
Tax effect of key items	12	21	22	70
Tax specific key items: (b)				
Deferred tax rate changes	—	—	130	—
One-time transition tax	—	—	(142)	—
Valuation allowance	4	—	4	—
Valvoline separation	—	(11)	—	(12)
Total income tax rate adjustments	16	10	14	58
Adjusted income tax expense	$ 11	$ 6	$ 24	$ 9
Effective tax rate, excluding key items (Non-GAAP) (c)	14%	11%	13%	8%

(a) See Adjusted EBITDA reconciliation table previously disclosed in this Management, Discussion and Analysis for a summary of the key items, before tax.
(b) For additional information on the effect that these tax specific key items had on EPS, see the Adjusted Diluted EPS table previously disclosed in this Management, Discussion and Analysis.
(c) Due to rounding conventions, the effective tax rate presented may not recalculate precisely based on the numbers disclosed within this table.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Income (loss) from discontinued operations (net of taxes)						
Valvoline	$ (7)	$ 12	$ (19)	$ 1	$ 161	$ (160)
Asbestos-related litigation	9	(25)	34	12	(25)	37
Distribution	(2)	—	(2)	(3)	—	(3)
Water Technologies	—	(1)	1	(1)	2	(3)
	$ —	$ (14)	$ 14	$ 9	$ 138	$ (129)

Current Quarter – As a result of the full separation of Valvoline Inc. on May 12, 2017, the operating results related to Valvoline Inc., including the operating results of the former Valvoline reportable segment, have been reflected as discontinued operations (net of tax) within the Statement of Consolidated Comprehensive Income (Loss). The activity within the current quarter primarily represents subsequent adjustments that were made in conjunction with the Tax Matters Agreement. See Note B for more information on the Tax Matters Agreement. During the prior year quarter, Valvoline's sales and pre-tax operating income included in discontinued operations were $234 million and $38 million, respectively (reflective of Valvoline’s operating activity until the final separation on May 12, 2017).

The current and prior year quarter included after-tax net adjustments to the asbestos reserves and receivables of $9 million of income and $25 million of expense, respectively, including the adjustments for the annual update. Additionally, the current and prior year quarters included post-closing adjustments related to the sale of Ashland Distribution and Ashland Water Technologies.

Year-to-Date - The Valvoline activity within the current period represents subsequent adjustments that were made in conjunction with the Tax Matters Agreement. During the prior year period, Valvoline's sales and pre-tax operating income included in discontinued operations were $1,237 million and $274 million, respectively. The remaining activity during both the current and prior year periods included adjustments for asbestos and previous divestitures.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Net income attributable to noncontrolling interest	$ —	$ 3	$ (3)	$ —	$ 27	$ (27)

Since Ashland's ownership interest in Valvoline Inc. was approximately 83% until the final separation on May 12, 2017, the amount of net income attributable to the outside stockholders of approximately 17% noncontrolling interest in Valvoline Inc. is presented within this caption on the Statement of Consolidated Comprehensive Income (Loss) for the three and nine months ended June 30, 2017.

Other comprehensive income (loss)

A comparative analysis of the components of other comprehensive income (loss) is provided below for the three and nine months ended June 30, 2018 and 2017.

	Three months ended June 30			Nine months ended June 30		
(In millions)	2018	2017	Change	2018	2017	Change
Other comprehensive income (loss) (net of taxes)						
Unrealized translation gain (loss)	$ (140)	$ 105	$ (245)	$ (82)	$ 19	$ (101)
Pension and postretirement obligation adjustment	—	—	—	—	(4)	4
Net change in available-for-sale securities	2	4	(2)	4	10	(6)
	$ (138)	$ 109	$ (247)	$ (78)	$ 25	$ (103)

Current Quarter - Total other comprehensive income, net of tax, for the current quarter decreased $247 million compared to the prior year quarter as a result of the following components:

- For the three months ended June 30, 2018, the change in unrealized gain from foreign currency translation adjustments resulted in a loss of $140 million compared to a gain of $105 million for the three months ended June 30, 2017. The fluctuations in unrealized translation gains and losses are primarily due to translating foreign subsidiary financial statements from local currencies to U.S. Dollars.
- The net change in available-for-sale securities related to restricted investments amounted to gains of $2 million and $4 million during the three months ended June 30, 2018 and 2017, respectively.

Year-to-Date - Total other comprehensive income, net of tax, for the current period decreased $103 million compared to the prior year period as a result of the following components:

- For the nine months ended June 30, 2018, the change in unrealized gain from foreign currency translation adjustments resulted in a loss of $82 million compared to a gain of $19 million for the nine months ended June 30, 2017. The fluctuations in unrealized translation gains and losses are primarily due to translating foreign subsidiary financial statements from local currencies to U.S. Dollars.
- The net change in available-for-sale securities related to restricted investments amounted to gains of $4 million and $10 million during the nine months ended June 30, 2018 and 2017, respectively.
- The pension and postretirement obligation adjustment was $4 million for the nine months ended June 30, 2017. This amount related to amortization of unrecognized prior services credits for pension and other postretirement benefit plans and was reclassified into net income during the prior year period.

RESULTS OF OPERATIONS – REPORTABLE SEGMENT REVIEW

Ashland's operations are managed within the following three reportable segments: Specialty Ingredients, Composites and Intermediates and Solvents.

Results of Ashland’s reportable segments are presented based on its management and internal accounting structure. The structure is specific to Ashland; therefore, the financial results of Ashland’s reportable segments are not necessarily comparable with similar information for other comparable companies. Ashland allocates all significant costs to its reportable segments except for certain significant company-wide restructuring activities and other costs or adjustments that relate to former businesses that Ashland no longer operates. The service cost component of pension and other postretirement benefits costs is allocated to each reportable segment on a ratable basis; while the remaining components of pension and other postretirement benefits costs are recorded within the other net periodic benefit income caption on the

Statements of Consolidated Comprehensive Income (Loss). Ashland refines its expense allocation methodologies to the reportable segments from time to time as internal accounting practices are improved, more refined information becomes available and the industry or market changes. Significant revisions to Ashland’s methodologies are adjusted for all segments on a retrospective basis.

The EBITDA and Adjusted EBITDA amounts presented within this business section are provided as a means to enhance the understanding of financial measurements that Ashland has internally determined to be relevant measures of comparison for each segment. Each of these non-GAAP measures is defined as follows: EBITDA (operating income (loss) plus depreciation and amortization), Adjusted EBITDA (EBITDA adjusted for key items, which may include pro forma effects for significant acquisitions or divestitures, as applicable), and Adjusted EBITDA margin (Adjusted EBITDA, which may include pro forma adjustments, divided by sales or sales adjusted for pro forma results). Ashland does not allocate items to each reportable segment below operating income, such as interest expense and income taxes. As a result, reportable segment EBITDA and Adjusted EBITDA are reconciled directly to operating income since it is the most directly comparable caption to the Statements of Consolidated Comprehensive Income (Loss).

The following table discloses sales, operating income, depreciation and amortization and statistical operating information by reportable segment for the three and nine months ended June 30, 2018 and 2017.

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018	2017	2018	2017
Sales				
Specialty Ingredients	$ 638	$ 591	$ 1,834	$ 1,617
Composites	250	209	706	561
Intermediates and Solvents	83	70	247	202
	$ 971	$ 870	$ 2,787	$ 2,380
Operating income (loss)				
Specialty Ingredients	$ 91	$ 58	$ 222	$ 172
Composites	22	22	59	50
Intermediates and Solvents	9	2	22	(8)
Unallocated and other	(56)	(45)	(103)	(109)
	$ 66	$ 37	$ 200	$ 105
Depreciation and amortization				
Specialty Ingredients	$ 63	$ 70	$ 189	$ 178
Composites	5	5	16	16
Intermediates and Solvents	8	8	23	23
Unallocated and other	—	—	8	1
	$ 76	$ 83	$ 236	$ 218
Operating information				
Specialty Ingredients				
Sales per shipping day	$ 10.0	$ 9.2	$ 9.7	$ 8.6
Metric tons sold (thousands)	83.1	83.7	240.1	237.0
Gross profit as a percent of sales (a)	34.9%	30.6%	33.4%	32.4%
Composites				
Sales per shipping day	$ 3.9	$ 3.3	$ 3.7	$ 3.0
Metric tons sold (thousands)	99.2	88.5	287.5	251.6
Gross profit as a percent of sales (a)	20.3%	21.0%	19.2%	20.2%
Intermediates and Solvents				
Sales per shipping day	$ 1.3	$ 1.1	$ 1.3	$ 1.1
Metric tons sold (thousands)	34.8	34.4	105.5	109.8
Gross profit as a percent of sales (a)	21.0%	14.3%	18.3%	6.7%

(a) Gross profit is defined as sales, less cost of sales divided by sales.

Sales by region expressed as a percentage of reportable segment sales for the three and nine months ended June 30, 2018 and 2017 were as follows. Ashland includes only U.S. and Canada in its North American designation.

	Three months ended June 30, 2018			Nine months ended June 30, 2018		
Sales by Geography	Specialty Ingredients	Composites	Intermediates and Solvents	Specialty Ingredients	Composites	Intermediates and Solvents
North America	40%	46%	20%	40%	46%	20%
Europe	33%	33%	62%	33%	34%	62%
Asia Pacific	19%	14%	15%	18%	13%	15%
Latin America & other	8%	7%	3%	9%	7%	3%
	100%	100%	100%	100%	100%	100%

	Three months ended June 30, 2017			Nine months ended June 30, 2017		
Sales by Geography	Specialty Ingredients	Composites	Intermediates and Solvents	Specialty Ingredients	Composites	Intermediates and Solvents
North America	40%	48%	21%	40%	48%	22%
Europe	31%	29%	60%	30%	29%	58%
Asia Pacific	19%	15%	16%	20%	15%	17%
Latin America & other	10%	8%	3%	10%	8%	3%
	100%	100%	100%	100%	100%	100%

Specialty Ingredients

Specialty Ingredients is a global leader in cellulose ethers, vinyl pyrrolidones and biofunctionals. It offers industry-leading products, technologies and resources for solving formulation and product-performance challenges. Specialty Ingredients uses natural, synthetic and semisynthetic polymers derived from cellulose ethers, vinyl pyrrolidones, acrylic polymers, polyester and polyurethane-based adhesives, and plant and seed extract. Specialty Ingredients' end markets offer comprehensive and innovative solutions for today's demanding consumer and industrial applications. Key customers include: pharmaceutical companies; makers of personal care products, food and beverages; makers of nutraceuticals and supplements; manufacturers of paint, coatings and construction materials; packaging and converting; and oilfield service companies.

On May 17, 2017, Ashland completed its acquisition of the stock of Pharmachem, a leading provider of quality ingredients to the global health and wellness industries and high-value differentiated products to fragrance and flavor houses. At the acquisition date, Pharmachem had approximately $300 million in annual revenues and 14 manufacturing facilities located in the United States and Mexico. New Jersey-based Pharmachem develops, manufactures and supplies custom and branded nutritional and fragrance products. See Note C within the Notes to Condensed Consolidated Financial Statements for more information.

Additionally, Ashland completed the transfer of its ownership interest in a consolidated joint venture during the third quarter of fiscal 2017.

June 2018 quarter compared to June 2017 quarter

Specialty Ingredients' sales increased $47 million to $638 million in the current quarter. The acquisition of Pharmachem increased sales by $20 million, or 3%. Volume and mix combined to increase sales by $19 million, while favorable foreign currency exchange increased sales by $13 million. In addition, improved product pricing increased sales by $6 million. These increases were partially offset by a decrease of $11 million related to the transfer of ownership interest in a consolidated joint venture during the third quarter of fiscal 2017.

Gross profit during the current quarter increased $41 million compared to the prior year quarter. An increase of $13 million to gross profit was due to restructuring charges for a plant closure in the prior year quarter. The net impact of pricing and costs increased gross profit by $9 million while the acquisition of Pharmachem increased gross profit by $8 million. Volume and mix combined to increase gross profit by $7 million and favorable foreign currency exchange increased gross profit by $5 million. These increases were partially offset by the impact from the joint venture divestiture, which decreased gross profit by $1 million. In total, gross profit margin during the current quarter increased 4.3 percentage points as compared to the prior year quarter to 34.9%.

Selling, general and administrative expenses (which include research and development expenses throughout the reportable segment discussion and analysis) increased $6 million in the current quarter as compared to the prior year quarter largely due to $3 million of incremental costs related to the acquisition of Pharmachem's operations. The remaining increase in selling, general and administrative expenses was primarily due to unfavorable foreign currency exchange. Equity and other income decreased $2 million compared to the prior year quarter due to accelerated depreciation during the current quarter related to the termination of a contract at a manufacturing facility.

Operating income totaled $91 million for the current quarter compared to $58 million in the prior year quarter. Current quarter EBITDA increased $35 million to $152 million, while Adjusted EBITDA increased $24 million to $155 million. Adjusted EBITDA margin increased 2.1 percentage points in the current quarter to 24.3%.

Fiscal 2018 year-to-date compared to fiscal 2017 year-to-date

Specialty Ingredients' sales increased $217 million to $1,834 million in the current period. The acquisition of Pharmachem increased sales by $140 million, or 9%. Volume and mix combined to increase sales by $51 million while favorable foreign currency exchange increased sales by $48 million. In addition, improved product pricing increased sales by $11 million. These increases were partially offset by a decrease of $33 million primarily related to the transfer of ownership interest in a consolidated joint venture.

Gross profit during the current period increased $88 million compared to the prior year period. The acquisition of Pharmachem increased gross profit by $39 million while improved volume and mix combined to increase gross profit by $26 million.   Favorable foreign currency exchange increased gross profit by $21 million, and there was an increase of $13 million due to restructuring charges for a plant closure in the prior year period. These increases were partially offset by the net impact of pricing and costs, which decreased gross profit by $7 million, and the joint venture divestiture, which decreased gross profit by $4 million. In total, gross profit margin during the current period increased 1.0 percentage points as compared to the prior year period to 33.4%.

Selling, general and administrative expenses increased $32 million in the current period as compared to the prior year period largely due to incremental costs of $23 million related to the acquisition of Pharmachem's operations. The remaining increase in selling, general and administrative expenses was primarily due to unfavorable foreign currency exchange. Equity and other income decreased $6 million compared to the prior year period due to accelerated depreciation during the current period related to the termination of a contract at a manufacturing facility.

Operating income totaled $222 million for the current period compared to $172 million in the prior year period. Current period EBITDA increased $66 million to $405 million, while Adjusted EBITDA increased $60 million to $413 million. Adjusted EBITDA margin increased 0.7 percentage points in the current period to 22.5%.

EBITDA and Adjusted EBITDA reconciliation

The following EBITDA and Adjusted EBITDA presentation for the three and nine months ended June 30, 2018 and 2017 below is provided as a means to enhance the understanding of financial measurements that Ashland has internally determined to be relevant measures of comparison for the results of Specialty Ingredients. Adjusted EBITDA results have been prepared to illustrate the ongoing effects of Ashland's operations, which exclude certain key items. The key items within the current quarter included $2 million accelerated depreciation for the termination of a contract at a manufacturing facility and $1 million of environmental reserve charges. In addition to the current quarter items, the current period reflects $4 million of additional accelerated depreciation and $1 million of severance and other restructuring charges for the closure of a manufacturing plant. The key items within both the prior year quarter and period related to a $13 million restructuring charge for the closure of a manufacturing plant, which included $11 million of accelerated depreciation and $2 million of severance and other restructuring costs, and $1 million for the revaluation of Pharmachem inventory.

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018	2017	2018	2017
Operating income	$ 91	$ 58	$ 222	$ 172
Depreciation and amortization (a)	61	59	183	167
EBITDA	152	117	405	339
Accelerated depreciation	2	11	6	11
Environmental reserve adjustments	1	—	1	—
Severance and other restructuring costs	—	2	1	2
Inventory fair value adjustment	—	1	—	1
Adjusted EBITDA	$ 155	$ 131	$ 413	$ 353

(a) Excludes $2 million and $6 million of accelerated depreciation for the three and nine months ended June 30, 2018, and $11 million of accelerated depreciation for both the three and nine months ended June 30, 2017.

Composites

Composites is a global leader in unsaturated polyester resins, vinyl ester resins and gelcoats. The Composites business manufactures and sells a broad range of general-purpose and high-performance grades of unsaturated polyester and vinyl ester resins, gelcoats and low-profile additives for the reinforced plastics industry. The products in the Composites business provide an array of functional properties including corrosion resistance, fire retardance, ultraviolet resistance, water and chemical resistance, high mechanical strength, impact and scratch resistance and high strength-to-weight ratios. Key end markets include transportation, construction, marine and infrastructure. In addition, the business manufactures and sells molten maleic anhydride for the manufacture of a variety of products such as unsaturated polyester resins, copolymers, lubricating oil additives, alkenyl succinic anhydrides, malic acid, fumaric acid and numerous derivative chemicals. Key markets include composites, personal care, dispersants and paper sizing.

June 2018 quarter compared to June 2017quarter

Composites' sales increased $41 million to $250 million in the current quarter. The acquisition of an unsaturated polyester resins manufacturing facility in May 2017 increased sales by $15 million, or 7%, while improved product pricing increased sales by $12 million, or 6%. Improved volume and mix increased sales by $9 million as metric tons sold increased to 99.2 thousand in the current quarter, while favorable foreign currency exchange increased sales by $5 million

Gross profit increased $7 million in the current quarter compared to the prior year quarter. The net effects of pricing and costs increased gross profit by $3 million. Changes in volume and mix combined to increase gross profit by $2 million while the facility acquisition and favorable foreign currency exchange each increased gross profit by $1 million. In total, gross profit margin decreased 0.7 percentage points as compared to the prior year quarter to 20.3%.

Selling, general and administrative expenses during the current quarter increased $7 million compared to the prior year quarter primarily due to higher general allocated resource costs as well as employee-related costs. Equity and other income remained consistent with the prior year quarter.

Operating income totaled $22 million and EBITDA totaled $27 million in both the current and prior year quarters. Adjusted EBITDA increased $1 million to $28 million in the current quarter, while Adjusted EBITDA margin decreased 1.7 percentage points in the current quarter to 11.2%.

Fiscal 2018 year-to-date compared to fiscal 2017 year-to-date

Composites' sales increased $145 million to $706 million in the current period. The acquisition of an unsaturated polyester resins manufacturing facility increased sales by $51 million, or 9%, while improved product pricing increased sales by $47 million, or 8%. Improved volume and mix increased sales by $26 million, as metric tons sold increased to 287.5 thousand in the current period, while favorable foreign currency exchange increased sales by $21 million.

Gross profit increased $23 million in the current period compared to the prior year period. The net effects of pricing and costs increased gross profit by $8 million, while changes in volume and mix combined to increase gross profit by $6 million. Favorable foreign currency exchange increased gross profit by $5 million and the facility acquisition increased gross profit by $4 million. In total, gross profit margin decreased 1.0 percentage points as compared to the prior year period to 19.2%.

Selling, general and administrative expenses during the current period increased $15 million compared to the prior year period primarily due to higher general allocated resource costs as well as employee-related costs. Equity and other income increased $1 million compared to the prior year period.

Operating income totaled $59 million in the current period compared to $50 million in the prior year period. EBITDA increased $9 million to $75 million in the current period, while Adjusted EBITDA increased $10 million to $76 million in the current period. Adjusted EBITDA margin decreased 1.0 percentage points in the current period to 10.8%.

EBITDA and Adjusted EBITDA reconciliation

The following EBITDA and Adjusted EBITDA presentation for the three and nine months ended June 30, 2018 and 2017 below is provided as a means to enhance the understanding of financial measurements that Ashland has internally determined to be relevant measures of comparison for the results of Composites. Adjusted EBITDA results have been prepared to illustrate the ongoing effects of Ashland's operations, which exclude certain key items. The key item in the current quarter and period related to environmental reserve adjustments of $1 million. There were no unusual or key items that affected comparability for EBITDA during the prior year quarter or period.

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018	2017	2018	2017
Operating income	$ 22	$ 22	$ 59	$ 50
Depreciation and amortization	5	5	16	16
EBITDA	27	27	75	66
Environmental reserve adjustments	1	—	1	—
Adjusted EBITDA	$ 28	$ 27	$ 76	$ 66

Intermediates and Solvents

Intermediates and Solvents is a leading producer of 1,4 butanediol (BDO) and related derivatives, including tetrahydrofuran and n-methylpyrrolidone. These products are used as chemical intermediates in the production of engineering polymers and polyurethanes, and as specialty process solvents in a wide array of applications including electronics, pharmaceuticals, water filtration membranes and more. Butanediol is also supplied to Ashland's Specialty Ingredients business for use as a raw material.

June 2018 quarter compared to June 2017 quarter

Intermediates and Solvents' sales increased $13 million to $83 million in the current quarter. Improved product pricing increased sales by $9 million, while favorable foreign currency exchange increased sales by $4 million.

Gross profit increased $7 million during the current quarter compared to the prior year quarter primarily due to the net impact of pricing and costs resulting from improvements in product pricing. Gross profit margin increased 6.7 percentage points as compared to the prior year quarter to 21.0%.

Selling, general and administrative expenses remained consistent with the prior year quarter.

Operating income totaled $9 million in the current quarter as compared to $2 million in the prior year quarter. EBITDA increased $7 million to $17 million in the current quarter, while EBITDA margin increased 6.2 percentage points in the current quarter to 20.5%.

Fiscal 2018 year-to-date compared to fiscal 2017 year-to-date

Intermediates and Solvents' sales increased $45 million to $247 million in the current period. Improved product pricing increased sales by $33 million while favorable foreign currency exchange increased sales by $15 million. The combination of lower volumes and product mix decreased sales by $3 million.

Gross profit increased $32 million during the current period compared to the prior year period. The net impact of pricing and costs increased gross profit by $24 million primarily due to improvements in product pricing. Lower facility turnaround costs in the current period resulted in a $4 million increase in gross profit. Volume declines were more than offset by product mix improvements to increase gross profit by $3 million while favorable foreign currency exchange increased gross profit by $1 million. In total, gross profit margin increased 11.6 percentage points as compared to the prior year period to 18.3%.

Selling, general and administrative expenses increased $2 million compared to the prior year period primarily due to higher general allocated resource costs.

Operating income totaled $22 million in the current period as compared to a loss of $8 million in the prior year period. EBITDA increased $30 million to $45 million in the current period, while EBITDA margin increased 10.8 percentage points in the current period to 18.2%.

EBITDA and Adjusted EBITDA reconciliation

The following EBITDA presentation for the three and nine months ended June 30, 2018 and 2017 is provided as a means to enhance the understanding of financial measurements that Ashland has internally determined to be relevant measures of comparison for the results of Intermediates and Solvents. There were no unusual or key items that affected comparability for EBITDA during the current and prior year quarters or periods.

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018	2017	2018	2017
Operating income (loss)	$ 9	$ 2	$ 22	$ (8)
Depreciation and amortization	8	8	23	23
EBITDA	$ 17	$ 10	$ 45	$ 15

Unallocated and other

The following table summarizes the key components of the Unallocated and other segment's operating income (loss) for the three and nine months ended June 30, 2018 and 2017.

	Three months ended June 30		Nine months ended June 30	
(In millions)	2018	2017	2018	2017
Restructuring activities (a)	$ (19)	$ (31)	$ (45)	$ (79)
Environmental expenses	(32)	(9)	(51)	(17)
Legal settlement/reserve	—	—	5	(5)
Other expense	(5)	(5)	(12)	(8)
Total expense	$ (56)	$ (45)	$ (103)	$ (109)

(a) Includes separation, severance, integration and stranded divestiture costs.

June 2018 quarter compared to June 2017 quarter

Unallocated and other recorded expense of $56 million and $45 million for the three months ended June 30, 2018 and 2017, respectively. The current and prior year quarters included charges for restructuring activities of $19 million and $31 million, respectively, which were comprised of the following items:

- a lease abandonment charge of $7 million related to the exit from an office building during the current quarter;
- $5 million of costs related to the potential sale of the Composites segment and Marl facility during the current quarter;
- $1 million of integration costs related to the acquisition of Pharmachem during both the current and prior year quarters;
- $1 million and $28 million of costs related to the separation of Valvoline during the current and prior year quarters, respectively; and
- $5 million and $2 million of stranded divestiture costs during the current and prior year quarters, respectively.

In addition, Unallocated and other included environmental expenses of $32 million during the current year quarter and $9 million during the prior year quarter.

Fiscal 2018 year-to-date compared to fiscal 2017 year-to-date

Unallocated and other recorded expense of $103 million and $109 million for the nine months ended June 30, 2018 and 2017, respectively. The current and prior year periods included charges for restructuring activities of $45 million and $79 million, respectively, which were comprised of the following items:

- $8 million of accelerated depreciation related to the planned closure of an office building during the current period;
- a lease abandonment charge of $7 million related to the exit from an office building during the current period;
- $5 million of costs related to the potential sale of the Composites segment and Marl facility during the current period;
- $7 million and $1 million of integration costs related to the acquisition of Pharmachem during the current and prior year periods, respectively;
- $9 million and $69 million of costs related to the separation of Valvoline during the current and prior year periods, respectively; and
- $9 million of stranded divestiture costs during both the current and prior year periods.

In addition, Unallocated and other during the current period included $51 million for environmental expenses and $5 million of income related to proceeds from a legal settlement while additional items in the prior year period included $17 million for environmental expenses and $5 million of expense for a legal reserve.

FINANCIAL POSITION

Liquidity

Ashland had $182 million in cash and cash equivalents as of June 30, 2018, of which $171 million was held by foreign subsidiaries and had no significant limitations that would prohibit remitting the funds to satisfy corporate obligations. In certain circumstances, if such amounts were repatriated to the United States, additional taxes might need to be accrued and paid depending on the source of the earnings remitted. Ashland currently has no plans to repatriate any amounts for which additional taxes would need to be accrued. However, due to the recent Tax Act, Ashland will be reassessing this position in future quarters.

Ashland's cash flows from operating, investing and financing activities, as reflected in the Statements of Condensed Consolidated Cash Flows, are summarized as follows for the nine months ended June 30, 2018 and 2017.

	Nine months ended June 30	
(In millions)	2018	2017
Cash provided (used) by:		
Operating activities from continuing operations	$ 129	$ 130
Investing activities from continuing operations	(135)	(779)
Financing activities from continuing operations	(346)	148
Discontinued operations	(34)	(187)
Effect of currency exchange rate changes on cash and cash equivalents	2	(8)
Net decrease in cash and cash equivalents	$ (384)	$ (696)

Operating activities

The following discloses the cash flows associated with Ashland's operating activities for the nine months ended June 30, 2018 and 2017.

	Nine months ended June 30	
(In millions)	2018	2017
Cash flows provided (used) by operating activities from continuing operations		
Net income	$ 104	$ 85
Income from discontinued operations (net of income taxes)	(9)	(138)
Adjustments to reconcile income from continuing operations to cash flows from operating activities:		
Depreciation and amortization	236	218
Original issue discount and debt issuance costs amortization	7	108
Deferred income taxes	(3)	(4)
Distributions from affiliates	1	1
Stock based compensation expense	20	14
Excess tax benefit on stock based compensation	4	2
Loss on early retirement of debt	—	9
Realized gains and investment income on available-for-sale securities	(10)	(9)
Net loss on acquisitions and divestitures	—	4
Pension contributions	(8)	(6)
Gain on post-employment plan remeasurement	—	(2)
Change in operating assets and liabilities (a)	(213)	(152)
Total cash flows provided by operating activities from continuing operations	$ 129	$ 130

(a) Excludes changes resulting from operations acquired or sold.

Cash flows provided from operating activities from continuing operations, a major source of Ashland's liquidity, amounted to cash inflows of $129 million and $130 million in the current and prior year periods, respectively.

Operating Activities - Operating Assets and Liabilities

The cash results during each period are primarily driven by net income (loss), excluding discontinued operation results, adjusted for certain non-cash items including depreciation and amortization (including original issue discount and debt issuance cost amortization), as well as changes in working capital, which are fluctuations within accounts receivable, inventory, trade payables and accrued expenses. Ashland continues to emphasize working capital management as a high priority and focus.

Changes in net working capital accounted for outflows of $156 million and $88 million for the nine months ended June 30, 2018 and 2017, respectively, and were driven by the following:

- Accounts receivable - There were cash outflows of $80 million and $76 million during the current and prior year periods, respectively.
- Inventory – There were cash outflows of $24 million and $16 million during the current and prior year periods, respectively, which were primarily due to sales volumes and inventory management strategies.
- Trade and other payables - There was a cash outflow of $52 million and cash inflow of $4 million during the current and prior year periods, respectively.

The remaining outflows within changes in operating assets and liabilities of $57 million and $64 million in the current and prior year periods, respectively, relate primarily to adjustments to certain accruals and long-term assets and liabilities as well as income taxes received and paid.

Operating Activities - Summary

Operating cash flows for the current period included income from continuing operations of $95 million, noncash adjustments of $236 million for depreciation and amortization and $7 million for debt issuance cost amortization.

Operating cash flows for the prior year period included a loss from continuing operations of $53 million. Operating cash flows also included noncash adjustments of $218 million for depreciation and amortization and $108 million for original issue discount and debt issuance cost amortization, including $92 million of accelerated accretion related to the tender offer of the 2029 notes and $7 million of accelerated amortization of previously capitalized debt issuance costs related to financing activity for the 2017 Credit Agreement.

Investing activities

The following discloses the cash flows associated with Ashland’s investing activities for the nine months ended June 30, 2018 and 2017.

(In millions)	Nine months ended June 30 2018	2017
Cash flows provided (used) by investing activities from continuing operations		
Additions to property, plant and equipment	$ (102)	$ (126)
Proceeds from disposal of property, plant and equipment	1	4
Purchase of operations - net of cash acquired	(11)	(680)
Proceeds from sale of operations	1	4
Life insurance payments	(37)	—
Net purchase of funds restricted for specific transactions	(10)	(2)
Reimbursement from restricted investments	25	19
Proceeds from sales of available-for-sale securities	17	19
Purchase of available-for-sale securities	(17)	(19)
Proceeds from the settlement of derivative instruments	1	5
Payments for the settlement of derivative instruments	(3)	(3)
Total cash flows used by investing activities from continuing operations	$ (135)	$ (779)

Cash used by investing activities was $135 million and $779 million for the current and prior year periods, respectively.

The significant cash investing activities for the current period primarily related to cash outflows of $102 million for property additions. The current period also included cash outflows of $37 million related to payments for a corporate-owned life insurance policy loan and $11 million for the purchase of Vornia Limited. Additionally, there was a cash inflow of $25 million for reimbursements from the restrictive renewable annual trust.

The significant cash investing activities for the prior year period primarily related to cash outflows of $680 million for the acquisition of Pharmachem and $126 million for property additions. The prior year period also included a $19 million cash inflow for reimbursements from the restrictive renewable annual trust.

Financing activities

The following discloses the cash flows associated with Ashland’s financing activities for the nine months ended June 30, 2018 and 2017.

(In millions)	Nine months ended June 30 2018	2017
Cash flows provided (used) by financing activities from continuing operations		
Proceeds from issuance of long-term debt	$ —	$ 1,100
Repayment of long-term debt	(135)	(913)
Premium on long-term debt	—	(17)
Proceeds from (repayment of) short-term debt	(158)	69
Debt issuance costs	(1)	(15)
Cash dividends paid	(44)	(62)
Stock based compensation employee withholding taxes paid in cash	(8)	(14)
Total cash flows provided (used) by financing activities from continuing operations	$ (346)	$ 148

Cash flows provided (used) by financing activities resulted in an outflow $346 million for the current period as compared to a cash inflow of $148 million for the prior year period.

Significant cash financing activities for the current period included a cash outflow $135 million for repayments of long-term debt, including $130 million for early repayments of the Three-Year TLA Facility and $5 million for repayments of the 2017 TLB Facility. The current period also included short-term debt net repayments of $158 million related to the 2017 Revolving Credit Facility and the accounts receivable securitization. The outstanding balance of the 2017 Revolving Credit Facility and a portion of the Three-Year TLA Facility were repaid primarily using cash from repatriations. The current period included cash dividends paid of $0.70 per share, for a total of $44 million.

Significant cash financing activities for the prior year period included cash inflows of $1,100 million from the issuance of the TLA Facilities and the 2017 TLB Facility. The prior year period also included cash outflows of $913 million related to the full repayment of the 2018 notes and partial repayments of the 2029 notes and 2022 notes. Additionally, the prior year included short-term debt net cash inflows of $69 million primarily related to debt outstanding on the 2017 Revolving Credit Facility and the accounts receivable securitization, partially offset by the repayment of the term loan due 2017. The prior year period included cash dividends paid of $1.005 per share, for a total of $62 million.

The following discloses the cash flows associated with Ashland's discontinued operations for the nine months ended June 30, 2018 and 2017.

	Nine months ended June 30	
(In millions)	2018	2017
Cash provided (used) by discontinued operations		
Operating cash flows	$ (34)	$ 123
Investing cash flows	—	(293)
Financing cash flows	—	(17)
Total cash used by discontinued operations	$ (34)	$ (187)

Cash flows for discontinued operations in the current period primarily related to previously divested businesses, including net payments of asbestos and environmental liabilities.

Cash flows for discontinued operations in the prior year period primarily relate to net cash outflows of $157 million related to the activity of Valvoline Inc. The remaining cash flows in the prior year period related to other previously divested businesses, including net payments of asbestos and environmental liabilities.

Free cash flow and other liquidity resources

The following represents Ashland's calculation of free cash flow for the disclosed periods. Free cash flow does not reflect adjustments for certain non-discretionary cash flows such as mandatory debt repayments.

	Nine months ended June 30	
(In millions)	2018	2017
Total cash flows provided by operating activities from continuing operations	$ 129	$ 130
Adjustments:		
Additions to property, plant and equipment	(102)	(126)
Free cash flows (a)	$ 27	$ 4

(a) Includes $37 million and $61 million of separation and restructuring-related payments for the nine months ended June 30, 2018 and 2017, respectively.

Working capital (current assets minus current liabilities, excluding long-term debt due within one year) amounted to $941 million at both June 30, 2018 and September 30, 2017. Liquid assets (cash, cash equivalents and accounts receivable) amounted to 118% and 122% of current liabilities at June 30, 2018 and September 30, 2017, respectively.

The following summary reflects Ashland’s cash and unused borrowing capacity as of June 30, 2018 and September 30, 2017.

(In millions)	June 30 2018	September 30 2017
Cash and investment securities		
Cash and cash equivalents	$ 182	$ 566
Unused borrowing capacity		
2017 Revolving credit facility	$ 750	$ 579
Accounts receivable securitization facility	44	35

The borrowing capacity remaining under the 2017 Revolving Credit Facility was $750 million due to a reduction of $50 million for letters of credit outstanding at June 30, 2018. In total, Ashland’s available liquidity position, which includes cash, the revolving credit facility and the accounts receivable securitization facility, was $976 million at June 30, 2018, compared to $1,180 million at September 30, 2017.

Capital resources

Debt

The following summary reflects Ashland’s debt as of June 30, 2018 and September 30, 2017.

(In millions)	June 30 2018	September 30 2017
Short-term debt (includes current portion of long-term debt)	$ 82	$ 235
Long-term debt (less current portion and debt issuance cost discounts) (a)	2,450	2,584
Total debt	$ 2,532	$ 2,819

(a) Includes $22 million and $25 million of debt issuance cost discounts as of June 30, 2018 and September 30, 2017, respectively.

The current portion of long-term debt was $11 million at June 30, 2018. Debt as a percent of capital employed was 43% at June 30, 2018 and 45% at September 30, 2017. At June 30, 2018, Ashland’s total debt had an outstanding principal balance of $2,604 million, discounts of $50 million, and debt issuance costs of $22 million. The scheduled aggregate maturities of long-term debt by year (including the current portion and excluding debt issuance costs) are as follows: $2 million remaining in 2018, $11 million in 2019, $139 million in 2020, $56 million in 2021 and $1,279 million in 2022.

Financing Activities

Accounts receivable securitization

During March 2018, the termination date of the accounts receivable securitization facility was extended from March 2018 to March 2020. The available funding for qualified receivables under the accounts receivable securitization facility increased from $100 million to $115 million. No other changes are expected to have a significant impact to Ashland's results of operations and financial position.

2017 Credit Agreement

On May 17, 2017, in conjunction with the closing of the Pharmachem acquisition, Ashland entered into a secured credit agreement (the 2017 Credit Agreement) with a group of lenders. The 2017 Credit Agreement provided for (i) a $250 million three-year term loan A facility (the Three-Year TLA Facility), (ii) a $250 million five-year term loan A facility (the Five-Year TLA Facility and together with the Three-Year TLA Facility, the TLA Facilities) and (iii) a $680 million five-year revolving credit facility (including a $125 million letter of credit sublimit) (the 2017 Revolving Credit Facility). Proceeds of borrowings under the TLA Facilities were used solely to finance the acquisition of Pharmachem, while the proceeds of the 2017 Revolving Credit Facility were used to finance, in part, the acquisition of Pharmachem, to refinance the 2015 Senior Credit Agreement and for general corporate purposes. On May 19, 2017, Ashland entered into Amendment No. 1 to the 2017 Credit Agreement, which increased the aggregate commitments under the 2017 Revolving Credit Facility from $680 million to $800 million.

At Ashland's option, loans issued under the 2017 Credit Agreement bear interest at either LIBOR or an alternate base rate, in each case plus the applicable interest rate margin. Loans bear interest at LIBOR plus 1.75% per annum, in the case of LIBOR borrowings, or at the alternate base rate plus 0.75%, in the alternative, through and including the date of delivery of a quarterly compliance certificate and thereafter the interest rate will fluctuate between LIBOR plus 1.375% per annum and LIBOR plus 2.500% per annum (or between the alternate base rate plus 0.375% per annum and the alternate base rate plus 1.500% per annum), based upon Ashland's secured facilities ratings or the consolidated net leverage ratio (as defined in the 2017 Credit Agreement) (whichever yields a lower applicable interest rate margin) at such time. In addition, Ashland was required to pay fees of 0.25% per annum on the daily unused amount of the 2017 Revolving Credit Facility through and including the date of delivery of a compliance certificate, and thereafter the fee rate will fluctuate between 0.175% and 0.40% per annum, based upon Ashland's secured facilities rating or the consolidated net leverage ratio (whichever yields a lower applicable rate). The TLA Facilities may be prepaid at any time without premium. The Three-Year TLA Facility will not amortize and will be due on May 17, 2020. The Five-Year TLA Facility will not amortize in each of the first, second and third years and will amortize at a rate of 20% per annum in each of the fourth and fifth years (payable in equal quarterly installments), with the outstanding balance of the Five-Year TLA Facility to be paid on May 17, 2022.

On June 14, 2017, Ashland entered into Amendment No. 2 to the 2017 Credit Agreement, which provided for a new $600 million seven-year senior secured term loan B facility (the 2017 TLB Facility). At Ashland's option, loans issued under the 2017 TLB Facility bear interest at either (x) LIBOR plus 2.00% per annum or (y) an alternate base rate plus 1.00% per annum. The 2017 TLB Facility may be prepaid at any time. The 2017 TLB Facility amortizes at a rate of 1.00% per annum (payable in equal quarterly installments) with the outstanding balance to be paid on May 17, 2024.

2018 financing activity related to the 2017 Credit Agreement

On May 22, 2018, Ashland entered into Amendment No. 3 to the 2017 Credit Agreement which provided for the re-pricing of the 2017 TLB facility. Due to this amendment, loans issued under the 2017 TLB facility bear interest at LIBOR plus 1.75% per annum (previously LIBOR plus 2.00% per annum). In addition, Amendment No. 3 permits Ashland to distribute or otherwise use the net proceeds from the anticipated divestiture of its Composites segment and the Intermediates and Solvents manufacturing facility in Marl, Germany, so long as certain pro forma gross consolidated leverage ratio requirements are met. All other significant terms of the agreement remained unchanged. Ashland incurred $1 million of new debt issuance costs in connection with the re-pricing, which was expensed during the three and nine months ended June 30, 2018 within the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income (Loss)

During the three months ended June 30, 2018, Ashland primarily utilized cash from repatriations and borrowings from the accounts receivable securitization facility to repay $130 million of the outstanding balance of the Three-Year TLA facility. As a result of these repayments, Ashland recognized accelerated amortization of previously capitalized debt issuance costs of less than $1 million during the three and nine months ended June 30, 2018, which was included in the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income (Loss).

Redemption of 3.875% notes due 2018

During the third quarter of 2017 in connection with the issuance of the 2017 TLB Facility, Ashland redeemed all of its outstanding 3.875% Senior Notes due 2018 (2018 notes), of which approximately $659 million were outstanding. Proceeds of borrowings under the 2017 TLB Facility, together with cash on hand, were used to pay for the redemption. Ashland recognized a $13 million charge related to premiums paid and accelerated amortization of previously capitalized debt issuance costs, which is included in the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income for the three and nine months ended June 30, 2017.

6.50% junior subordinated notes due 2029

In December 2016, Hercules LLC (Hercules) (formerly Hercules Incorporated), an indirect wholly-owned subsidiary of Ashland, repurchased, through a cash tender offer (the Tender Offer), $182 million of the aggregate principal par value amount of its 6.50% junior subordinated notes due 2029 (2029 notes) for an aggregate purchase price of $177 million. As a result of the Tender Offer, the carrying value of the 2029 notes was reduced by $90 million and Ashland recognized a $92 million charge related to accelerated accretion of the recorded debt discount (compared to the total par value) and $5 million of a net gain related to the repayment of the debt. The charge and net gain are included in the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income (Loss) for the nine months ended June 30, 2017.

Open market repurchases of 4.750% notes due 2022 and 3.875% notes due 2018

During the nine months ended June 30, 2017, Ashland executed open market repurchases of its 4.750% notes due 2022 (2022 notes) and its 3.875% notes due 2018 (2018 notes). As a result of these repurchases, the carrying values of the 2022 notes and 2018 notes were reduced by $39 million and $41 million, respectively. Ashland recognized a $3 million charge related to premiums paid in the open market repurchases and accelerated amortization of previously capitalized debt issuance costs, which is included in the net interest and other financing expense caption of the Statements of Consolidated Comprehensive Income (Loss) for the nine months ended June 30, 2017.

Ashland credit ratings

Ashland's corporate credit rating with Standard & Poor's is BB, while Moody's Investor Services is Ba2. Moody's Investor Services and Standard & Poor's outlooks both remained at stable. Subsequent changes to these ratings may have an effect on Ashland's borrowing rate or ability to access capital markets in the future.

Ashland debt covenant restrictions

Ashland's most recent credit agreement (the 2017 Credit Agreement) contains usual and customary representations, warranties and affirmative and negative covenants, including financial covenants for leverage and interest coverage ratios, limitations on liens, additional subsidiary indebtedness, restrictions on subsidiary distributions, investments, mergers, sale of assets and restricted payments and other customary limitations. As of June 30, 2018, Ashland is in compliance with all debt agreement covenant restrictions under the 2017 Credit Agreement.

The maximum consolidated net leverage ratio permitted under the 2017 Credit Agreement is 4.5. The 2017 Credit Agreement defines the consolidated net leverage ratio as the ratio of consolidated indebtedness minus unrestricted cash and cash equivalents to consolidated EBITDA (Covenant Adjusted EBITDA) for any measurement period. In general, the 2017 Credit Agreement defines Covenant Adjusted EBITDA as net income plus consolidated interest charges, taxes, depreciation and amortization expense, fees and expenses related to capital market transactions and proposed or actual acquisitions and divestitures, restructuring and integration charges, noncash stock and equity compensation expense, and any other nonrecurring expenses or losses that do not represent a cash item in such period or any future period; less any noncash gains or other items increasing net income. The computation of Covenant Adjusted EBITDA differs from the calculation of EBITDA and Adjusted EBITDA, which have been reconciled on page 42. In general, consolidated indebtedness includes debt plus all purchase money indebtedness, banker's acceptances and bank guaranties, deferred purchase price of property or services, attributable indebtedness and guarantees.

The minimum required consolidated interest coverage ratio under the 2017 Credit Agreement is 3.0. The 2017 Credit Agreement defines the consolidated interest coverage ratio as the ratio of Covenant Adjusted EBITDA to consolidated interest charges for any measurement period.

At June 30, 2018, Ashland's calculation of the consolidated net leverage ratio was 3.7, which is below the maximum consolidated ratio permitted under the 2017 Credit Agreement of 4.5. At June 30, 2018, Ashland's calculation of the consolidated interest coverage ratio was 4.9, which exceeds the minimum required consolidated ratio of 3.0.

The average change in Covenant Adjusted EBITDA of $100 million would have an approximate 0.6x effect on the consolidated net leverage ratio and a 0.8x effect on the consolidated interest coverage ratio. The average change in consolidated indebtedness of $100 million would affect the consolidated leverage ratio by approximately 0.2x.

Additional capital resources

Cash projection

Ashland projects that cash flow from operations and other available financial resources such as cash on hand and revolving credit should be sufficient to meet investing and financing requirements to enable Ashland to comply with the covenants and other terms of its financing obligations. These projections are based on various assumptions that include, but are not limited to: operational results, capital expenditures, working capital needs and tax payments and receipts.

Total equity

Total equity decreased $7 million since September 30, 2017 to $3,339 million at June 30, 2018. The decrease of $7 million was due to deferred translation losses of $82 million and cash dividends of $44 million, partially offset by net income of $104 million, $11 million for common shares issued under stock incentive and other plans and a $4 million net increase in available-for-sale securities.

Stock repurchase program

In April 2015, Ashland's Board of Directors approved a $1 billion share repurchase authorization that was set to expire on December 31, 2017 (the 2015 stock repurchase program). During September 2017, Ashland's Board of Directors extended the 2015 stock repurchase program indefinitely, at which point $500 million of share repurchase authorization remained under the 2015 stock repurchase program.

During March 2018, Ashland's Board of Directors approved a new $1 billion stock repurchase program, which replaced the 2015 stock repurchase program. Under the new program, Ashland's common shares may be repurchased in open market transactions, privately negotiated transactions or pursuant to one or more accelerated stock repurchase programs or Rule 10b5-1 plans. As of June 30, 2018, $1 billion remained available for repurchase under this authorization.

Stockholder dividends

In May 2018, the Board of Directors of Ashland announced a quarterly cash dividend of 25 cents per share to eligible stockholders at record, which represented an increase from the previous quarterly cash dividend of 22.5 cents per share. This dividend was paid in the third quarter of fiscal 2018.

In May 2017, subsequent to the final distribution of Valvoline Inc.'s common stock, the Board of Directors of Ashland announced a quarterly cash dividend of 22.5 cents per share to eligible stockholders at record which was paid for quarterly dividends in the first and second quarters of fiscal 2018 and the third and fourth quarters of fiscal 2017. This represented a reduction from the previous quarterly dividend of 39 cents per share which was paid for quarterly dividends in the first and second quarters of fiscal 2017.

Capital expenditures

Capital expenditures were $102 million for the nine months ended June 30, 2018 and averaged approximately $217 million during the last three fiscal years.

Contractual obligations and commitments

As a result of the Tax Act that was enacted during December 2017, Ashland has currently estimated and identified that the one-time transition tax related to the new law is estimated to be approximately $160 million payable over eight years, with the first payment of approximately $13 million due during the first quarter of fiscal year 2019. Ashland will continue to reassess this estimate in future periods.

In addition, during the nine months ended June 30, 2018, Ashland repatriated approximately $470 million in cash that was primarily used to repay existing debt. There were no other significant changes to the contractual obligations table as presented at September 30, 2017.

CRITICAL ACCOUNTING POLICIES

The preparation of Ashland’s Condensed Consolidated Financial Statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, sales and expenses, and the disclosures of contingent assets and liabilities. Significant items that are subject to such estimates and assumptions include, but are not limited to, long-lived assets (including goodwill and other intangible assets), income taxes, other liabilities and receivables associated with asbestos litigation and environmental remediation. These accounting policies are discussed in detail in “Management’s Discussion and Analysis – Critical Accounting Policies” in Ashland’s Annual Report on Form 10-K for the fiscal year ended September 30, 2017. Although management bases its estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, actual results could differ significantly from the estimates under different assumptions or conditions. Management has reviewed the estimates affecting these items with the Audit Committee of Ashland’s Board of Directors. No material changes have been made to the valuation techniques during the nine months ended June 30, 2018.

OUTLOOK

Fiscal Year 2018

Ashland updated its financial outlook for fiscal 2018 as shown in the table below.

	Prior FY 2018 Outlook	Updated FY 2018 Outlook
Adjusted EBITDA		
Specialty Ingredients	$565 - $585 million	$570 - $580 million
Composites	$90 - $100 million	$95 - $100 million
Intermediates & Solvents	$50 - $60 million	$55 - $60 million
Unallocated and other	($35 - $45 million)	No change
Key Operating Metrics		
Free cash flow	> $170 million*	No change*
Adjusted diluted EPS	$3.30 - $3.50	$3.50 - $3.60
Corporate Items		
Depreciation & amortization	~$300 million	No change
Interest expense	$123 - $128 million	$123 - $125 million
Effective tax rate	13 - 17%	No change
Capital expenditures	$195 - $205 million	$195 - $200 million
Diluted share count	~ 64 million	No change

* These figures include approximately $50 million of separation and restructuring-related payments.

For the fourth quarter of fiscal 2018, Ashland expects adjusted diluted earnings per share in the range of $0.90-$1.00, compared to $0.78 in the prior-year period. This estimate assumes an effective tax rate of 19 percent for the fourth quarter.

For the full 2018 fiscal year, Ashland now expects adjusted diluted earnings per share in the range of $3.50 to $3.60, which would represent growth of 43 – 48 percent compared to the previous year. Ashland expects free cash flow of $170 million in fiscal 2018. This figure includes approximately $50 million of separation and restructuring-related payments.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Ashland's market risk exposure at June 30, 2018 is generally consistent with the types of market risk exposures presented in Ashland's Annual Report on Form 10-K for the fiscal year ended September 30, 2017.

ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures - As of the end of the period covered by this quarterly report, Ashland, under the supervision and with the participation of its management, including Ashland's Chief Executive Officer and its Chief Financial Officer, evaluated the effectiveness of Ashland's disclosure controls and procedures pursuant to Rule 13a-15(b) and 15d-15(b) promulgated under the Securities Exchange Act of 1934, as amended. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures were effective as of June 30, 2018.

Changes in Internal Control over Financial Reporting - During the nine months ended June 30, 2018, there were no significant changes in Ashland's internal control over financial reporting, or in other factors, that occurred during the period covered by this quarterly report that have materially affected, or are reasonably likely to materially affect, Ashland's internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

The following is a description of Ashland's material legal proceedings.

Asbestos-Related Litigation

Ashland is subject to liabilities from claims alleging personal injury caused by exposure to asbestos. Such claims result primarily from indemnification obligations undertaken in 1990 in connection with the sale of Riley Stoker Corporation (Riley), a former subsidiary. Although Riley was neither a producer nor a manufacturer of asbestos, its industrial boilers contained some asbestos-containing components provided by other companies.

Hercules LLC (formerly Hercules Incorporated), an indirect wholly-owned subsidiary of Ashland, is also subject to liabilities from asbestos-related personal injury lawsuits involving claims which typically arise from alleged exposure to asbestos fibers from resin encapsulated pipe and tank products which were sold by one of Hercules' former subsidiaries to a limited industrial market.

Ashland and Hercules are also defendants in lawsuits alleging exposure to asbestos at facilities formerly or presently owned or operated by Ashland or Hercules.

For additional detailed information regarding liabilities arising from asbestos-related litigation, see Note K of Notes to Condensed Consolidated Financial Statements in this quarterly report on Form 10-Q.

Environmental Proceedings

(a) CERCLA and Similar State Law Sites - Under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 and similar state laws, Ashland and its subsidiaries may be subject to joint and several liability for cleanup costs in connection with alleged releases of hazardous substances at sites where it has been identified as a "potentially responsible party" (PRP). As of June 30, 2018, Ashland and its subsidiaries have been identified as a PRP by U.S. federal and state authorities, or by private parties seeking contribution, for the cost of environmental investigation and/or cleanup at 82 waste treatment or disposal sites. These sites are currently subject to ongoing investigation and remedial activities, overseen by the United States Environmental Protection Agency (USEPA) or a state agency, in which Ashland or its subsidiaries are typically participating as a member of a PRP group. Generally, the types of relief sought include remediation of contaminated soil and/or groundwater, reimbursement for past costs of site cleanup and administrative oversight and/or long-term monitoring of environmental conditions at the sites. The ultimate costs are not predictable with assurance.

(b) Philadelphia, Pennsylvania Matters - On May 3, 2018, Ashland received a Consent Assessment of Civil Penalty from the Pennsylvania Department of Environmental Protection ("PADEP"), seeking a penalty of $445,000 alleging violations under the Pennsylvania Storage Tank and Spill Prevention Act in connection with the October 2017 release at Ashland's Philadelphia, Pennsylvania Composites site. Ashland disputes the factual allegations and legal interpretations of PADEP and is working with PADEP to resolve the matter. While this matter could result in a penalty from PADEP in excess of $100,000, the potential penalty is not expected to be material to Ashland.

(c) Hattiesburg, Mississippi Resource Conservation and Recovery Act Matter - In November 2008, the Mississippi Department of Environmental Quality (MDEQ) issued a Notice of Violation to Hercules' now-closed Hattiesburg, Mississippi manufacturing facility alleging that a process water impoundment basin at the facility had been operated as a hazardous waste storage and treatment facility without a permit in violation of the Resource Conservation and Recovery Act. In May 2011, the USEPA issued an inspection report from a September 2010 inspection with allegations similar to those of the MDEQ and promulgated an information request. Ashland has been working with the MDEQ and USEPA to settle this matter in the context of the shutdown and ongoing remediation of the Hattiesburg facility. The USEPA proposed a settlement penalty in excess of $100,000. While it is reasonable to believe that this matter will involve a penalty from the MDEQ and/or the USEPA exceeding $100,000, the potential penalty with respect to this enforcement matter should not be material to Ashland.

(d) Lower Passaic River, New Jersey Matters - Ashland, through two formerly owned facilities, and ISP, through a now-closed facility, have been identified as PRPs, along with approximately 70 other companies (the Cooperating Parties Group or the CPG), in a May 2007 Administrative Order of Consent (AOC) with the USEPA. The parties are required to perform a remedial investigation and feasibility study (RI/FS) of the entire 17 miles of the Passaic River. In June 2007, the USEPA separately commenced a Focused Feasibility Study (FFS) as an interim

measure. In accordance with the 2007 AOC, in June 2012 the CPG voluntarily entered into another AOC for an interim removal action focused solely at mile 10.9 of the Passaic River. The allocations for the 2007 AOC and the 2012 removal action are based on interim allocations, are immaterial and have been accrued. In April 2014, the USEPA released the FFS. The CPG submitted the Draft RI/FS Report on April 30, 2015. The USEPA has released the FFS Record of Decision for the lower 8 miles and recently reached an agreement with Occidental to conduct and pay for the remedial design. The USEPA has advised that it will be working to secure similar agreements with other PRPs. The release of the FFS Record of Decision did not have a material adverse impact on Ashland's business and financial operations; however, there are a number of contingencies in the future that could possibly have a material impact including adverse rulings or verdicts, allocation proceedings and related orders.

For additional information regarding environmental matters and reserves, see Note K of Notes to Condensed Consolidated Financial Statements in this quarterly report on Form 10-Q.

Other Pending Legal Proceedings

In addition to the matters described above, there are other various claims, lawsuits and administrative proceedings pending or threatened against Ashland and its current and former subsidiaries. Such actions are with respect to commercial matters, product liability, toxic tort liability and other environmental matters which seek remedies or damages, some of which are for substantial amounts. While Ashland cannot predict with certainty the outcome of such actions, it believes that adequate reserves have been recorded and losses already recognized with respect to such actions were immaterial as of June 30, 2018. There is a reasonable possibility that a loss exceeding amounts already recognized may be incurred related to these actions; however, Ashland believes that such potential losses were immaterial as of June 30, 2018.

ITEM 1A. RISK FACTORS

During the period covered by this report, there were no material changes from the risk factors previously disclosed in Ashland's Annual Report on Form 10-K for the fiscal year ended September 30, 2017.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

There was no share repurchase activity during the three months ended June 30, 2018.

Issuer Purchases of Equity Securities

Q3 Fiscal Periods	Total Number of Shares Purchased	Average Price Paid Per Share, including commission	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in millions)(a)
April 1, 2018 to April 30, 2018	—	$ —	—	$ 1,000
May 1, 2018 to May 31, 2018	—	—	—	1,000
June 1, 2018 to June 30, 2018	—	—	—	1,000
Total	—		—	$ 1,000

(a) During March 2018, Ashland's Board of Directors approved a new $1 billion stock repurchase program, which replaced the previous stock repurchase program. The Company's stock repurchase program does not obligate it to acquire any specific number of shares. Under the program, shares may be repurchased in privately negotiated and/or open market transactions, including under plans complying with Rule 10b5-1 of the Exchange Act. As of June 30, 2018, $1 billion remains available for repurchase under this authorization.

ITEM 6. EXHIBITS

(a) Exhibits

10.1	Amendment No. 3 to the Credit Agreement dated as of May 17, 2017, dated as of May 22, 2018, among Ashland LLC, as Borrower, the Lenders from time to time party thereto, The Bank of Nova Scotia, as Administrative Agent, Swing Line Lender and an L/C Issuer, each other L/C Issuer from time to time party thereto and Citibank, N.A., as Syndication Agent, and the various other parties thereto (as amended by Amendment No. 1 to the Credit Agreement, dated as of May 19, 2017, as further amended by Amendment No. 2 to the Credit Agreement, dated as of June 14, 2017, and as further amended, restated, modified and supplemented from time to time) (filed as Exhibit 10.1 to Ashland's Form 8-K filed on May 23, 2018 (SEC File No. 333-211719), and incorporated herein by reference).
10.2	Amendment No. 4 to the Credit Agreement dated as of May 17, 2017, dated as of June 29, 2018, among Ashland LLC, as Borrower, The Lenders from time to time party thereto, The Bank of Nova Scotia, as Administrative Agent (the "Administrative Agent"), Swing Line Lender and an L/C Issuer, each other L/C Issuer from time to time party thereto and Citibank, N.A., as Syndication Agent, and the various other parties thereto (as amended by Amendment No. 1 to the Credit Agreement, dated as of May 19, 2017, as further amended by Amendment No. 2 to the Credit Agreement, dated as of June 14, 2017 and Amendment No. 3 to the Credit Agreement, dated as of May 22, 2018, and as further amended, restated, modified and supplemented from time to time) (filed as Exhibit 10.1 to Ashland's Form 8-K filed on July 2, 2018 (SEC File No. 333-211719), and incorporated herein by reference).
12*	Computation of Ratio of Earnings to Fixed Charges.
31.1*	Certificate of William A. Wulfsohn, Chief Executive Officer of Ashland pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certificate of J. Kevin Willis, Chief Financial Officer of Ashland pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32*	Certificate of William A. Wulfsohn, Chief Executive Officer of Ashland, and J. Kevin Willis, Chief Financial Officer of Ashland pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS**	XBRL Instance Document.
101.SCH**	XBRL Taxonomy Extension Schema Document.
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document.

*Filed herewith.

**Attached as Exhibit 101 to this report are the following documents formatted in XBRL (Extensible Business Reporting Language): (i) Statements of Consolidated Comprehensive Income (Loss) for the three and nine months ended June 30, 2018 and June 30, 2017; (ii) Condensed Consolidated Balance Sheets at June 30, 2018 and September 30, 2017; (iii) Statements of Consolidated Equity at June 30, 2018; (iv) Statements of Condensed Consolidated Cash Flows for the nine months ended June 30, 2018 and June 30, 2017; and (v) Notes to Condensed Consolidated Financial Statements.

SM Service mark, Ashland or its subsidiaries, registered in various countries.

™ Trademark, Ashland or its subsidiaries, registered in various countries.

SIGNATURE

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.

	Ashland Global Holdings Inc.
	(Registrant)
August 1, 2018	/s/ J. Kevin Willis
	J. Kevin Willis Senior Vice President and Chief Financial Officer (on behalf of the Registrant and as principal financial officer)

EXHIBIT 12

ASHLAND GLOBAL HOLDINGS INC.
COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES
(In millions)

	Years ended September 30					Nine months ended June 30	
	2017	2016	2015	2014	2013	2018	2017
EARNINGS							
Income (loss) from continuing operations	$ (105)	$ (283)	$ (12)	$ (121)	$ 301	$ 95	$ (53)
Income tax expense (benefit)	7	(25)	(139)	(290)	48	10	(49)
Interest expense	123	162	148	149	208	96	91
Interest portion of rental expense	16	17	15	20	15	11	12
Amortization of deferred debt expense	109	18	18	14	65	7	108
Distributions in excess of (less than) earnings of unconsolidated affiliates	1	1	1	(9)	(10)	1	1
	$ 151	$ (110)	$ 31	$ (237)	$ 627	$ 220	$ 110
FIXED CHARGES							
Interest expense	$ 123	$ 162	$ 148	$ 149	$ 208	$ 96	$ 91
Interest portion of rental expense	16	17	15	20	15	11	12
Amortization of deferred debt expense	109	18	18	14	65	7	108
Capitalized interest	1	1	2	1	1	—	1
	$ 249	$ 198	$ 183	$ 184	$ 289	$ 114	$ 212
RATIO OF EARNINGS TO FIXED CHARGES	(A)	(B)	(C)	(D)	2.17	1.93	(E)

(A) Deficiency Ratio - The Ratio of Earnings to Fixed Charges was less than 1x. To achieve a ratio of 1x, additional total earnings of $98 million would have been required for the year ended September 30, 2017.

(B) Deficiency Ratio - The Ratio of Earnings to Fixed Charges was less than 1x. To achieve a ratio of 1x, additional total earnings of $308 million would have been required for the year ended September 30, 2016.

(C) Deficiency Ratio - The Ratio of Earnings to Fixed Charges was less than 1x. To achieve a ratio of 1x, additional total earnings of $152 million would have been required for the year ended September 30, 2015.

(D) Deficiency Ratio - The Ratio of Earnings to Fixed Charges was less than 1x. To achieve a ratio of 1x, additional total earnings of $421 million would have been required for the year ended September 30, 2014.

(E) Deficiency Ratio - The Ratio of Earnings to Fixed Charges was less than 1x. To achieve a ratio of 1x, additional total earnings of $102 million would have been required for the nine months ended June 30, 2017.

EXHIBIT 31.1

CERTIFICATIONS

I, William A. Wulfsohn, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Ashland Global 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.

Date: August 1, 2018

/s/ William A. Wulfsohn

William A. Wulfsohn
Chairman and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATIONS

I, J. Kevin Willis, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Ashland Global 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.

Date: August 1, 2018

/s/ J. Kevin Willis

J. Kevin Willis
Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 32

ASHLAND GLOBAL HOLDINGS INC.

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 Ashland Global Holdings Inc. (the “Company”) on Form 10-Q for the period ended June 30, 2018, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), each of the undersigned, William A. Wulfsohn, Chief Executive Officer of the Company, and J. Kevin Willis, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ William A. Wulfsohn
William A. Wulfsohn
Chief Executive Officer
August 1, 2018

/s/ J. Kevin Willis
J. Kevin Willis
Chief Financial Officer
August 1, 2018