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 March 31, 2021

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

8145 Blazer Drive
Wilmington, Delaware 19808
Telephone Number (302) 995-3000

Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value $.01 per share	ASH	New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act: None

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

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

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

Large Accelerated Filer	☑	Accelerated Filer	☐
Non-Accelerated Filer	☐	Smaller Reporting Company	☐
		Emerging Growth Company	☐

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

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

At March 31, 2021, there were 60,708,900 shares of Registrant's Common Stock outstanding.

PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

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

	Three months ended March 31		Six months ended March 31	
(In millions except per share data - unaudited)	2021	2020	2021	2020
Sales	$ 598	$ 610	$ 1,149	$ 1,143
Cost of sales	407	413	781	793
Gross profit	191	197	368	350
Selling, general and administrative expense	84	103	190	202
Research and development expense	14	18	29	34
Intangibles amortization expense	22	21	43	42
Equity and other income	—	7	6	7
Goodwill impairment	—	530	—	530
Operating income (loss)	71	(468)	112	(451)
Net interest and other expense	23	117	17	127
Net income (loss) on acquisitions and divestitures	(5)	—	9	3
Income (loss) from continuing operations before income taxes	43	(585)	104	(575)
Income tax expense (benefit)	—	(10)	—	(34)
Income (loss) from continuing operations	43	(575)	104	(541)
Loss from discontinued operations (net of income taxes)	(2)	(7)	(7)	(9)
Net income (loss)	$ 41	$ (582)	$ 97	$ (550)
PER SHARE DATA				
Basic earnings per share - Note M				
Income (loss) from continuing operations	$ 0.70	$ (9.48)	$ 1.71	$ (8.93)
Income (loss) from discontinued operations	(0.03)	(0.13)	(0.12)	(0.15)
Net income (loss)	$ 0.67	$ (9.61)	$ 1.59	$ (9.08)
Diluted earnings per share - Note M				
Income (loss) from continuing operations	$ 0.69	$ (9.48)	$ 1.69	$ (8.93)
Income (loss) from discontinued operations	(0.03)	(0.13)	(0.12)	(0.15)
Net income (loss)	$ 0.66	$ (9.61)	$ 1.57	$ (9.08)
COMPREHENSIVE INCOME (LOSS)				
Net income (loss)	$ 41	$ (582)	$ 97	$ (550)
Other comprehensive income (loss), net of tax				
Unrealized translation gain (loss)	(34)	(52)	14	(14)
Other comprehensive income (loss)	(34)	(52)	14	(14)
Comprehensive income (loss)	$ 7	$ (634)	$ 111	$ (564)

SEE NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

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

(In millions - unaudited)	March 31 2021	September 30 2020
ASSETS		
Current assets		
Cash and cash equivalents	$ 373	$ 454
Accounts receivable (a)	447	471
Inventories - Note F	512	529
Other assets	86	87
Current assets held for sale - Note B	—	6
Total current assets	1,418	1,547
Noncurrent assets		
Property, plant and equipment		
Cost	3,307	3,265
Accumulated depreciation	1,775	1,700
Net property, plant and equipment	1,532	1,565
Goodwill - Note G	1,760	1,758
Intangibles - Note G	971	1,013
Operating lease assets, net - Note I	132	137
Restricted investments - Note E	302	301
Asbestos insurance receivable (b) - Note L	128	136
Deferred income taxes	26	26
Other assets	395	394
Total noncurrent assets	5,246	5,330
Total assets	$ 6,664	$ 6,877
LIABILITIES AND EQUITY		
Current liabilities		
Short-term debt - Note H	$ 85	$ 280
Current portion of long-term debt - Note H	3	—
Trade and other payables	217	233
Accrued expenses and other liabilities	241	277
Current operating lease obligations - Note I	23	23
Total current liabilities	569	813
Noncurrent liabilities		
Long-term debt - Note H	1,571	1,573
Asbestos litigation reserve - Note L	489	513
Deferred income taxes	229	229
Employee benefit obligations - Note K	152	157
Operating lease obligations - Note I	119	124
Other liabilities	421	432
Total noncurrent liabilities	2,981	3,028
Commitments and contingencies - Note L		
Stockholders' equity	3,114	3,036
Total liabilities and stockholders' equity	$ 6,664	$ 6,877

(a) Accounts receivable includes an allowance for credit losses of $3 million at both March 31, 2021 and September 30, 2020.
(b) Asbestos insurance receivable includes an allowance for credit losses of $3 million at March 31, 2021.

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, 2020	$ 1	$ 769	$ 2,649	$ (383)	$ 3,036
Adoption of new accounting pronouncement (b)			(2)		(2)
Total comprehensive income					
Net Income			97		97
Other comprehensive income				14	14
Regular dividends, $0.550 per common share			(34)		(34)
Common shares issued under stock incentive and other plans (c)		3			3
BALANCE AT MARCH 31, 2021	$ 1	$ 772	$ 2,710	$ (369)	$ 3,114

(a) At March 31, 2021 and September 30, 2020, the after-tax accumulated other comprehensive loss of $369 million and $383 million, respectively, was each comprised of net unrealized translation losses of $367 million and $381 million, respectively, and unrecognized prior service costs as a result of certain employee benefit plan amendments of $2 million each.

(b) Represents the cumulative-effect adjustment, net of tax, for the adoption of the new accounting pronouncement related to the measurement of credit losses on financial instruments.

(c) Common shares issued were 140,706 for the six months ended March 31, 2021.

SEE NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS.

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

	Six months ended March 31	
(In millions - unaudited)	2021	2020
CASH FLOWS PROVIDED (USED) BY OPERATING ACTIVITIES FROM CONTINUING OPERATIONS		
Net income (loss)	$ 97	$ (550)
Loss from discontinued operations (net of income taxes)	7	9
Adjustments to reconcile income from continuing operations to cash flows from operating activities:		
Depreciation and amortization	124	122
Original issue discount and debt issuance costs amortization	3	12
Deferred income taxes	(12)	(28)
Gain from sales of property and equipment	(3)	—
Distributions from equity affiliates	1	—
Stock based compensation expense	8	8
(Income) loss from restricted investments	(19)	16
Excess tax benefit on stock based compensation	1	1
Loss on early retirement of debt	—	59
Income on acquisitions and divestitures	(11)	—
Impairments	9	530
Pension contributions	(4)	(3)
Change in operating assets and liabilities (a)	(31)	(163)
Total cash flows provided by operating activities from continuing operations	170	13
CASH FLOWS PROVIDED (USED) BY INVESTING ACTIVITIES FROM CONTINUING OPERATIONS		
Additions to property, plant and equipment	(55)	(66)
Proceeds from disposal of property, plant and equipment	5	—
Proceeds from sale or restructuring of operations	14	—
Company-owned life insurance payments	(1)	—
Net purchase of funds restricted for specific transactions	(1)	(2)
Reimbursements from restricted investments	18	19
Proceeds from sale of securities	47	10
Purchases of securities	(47)	(10)
Total cash flows used by investing activities from continuing operations	(20)	(49)
CASH FLOWS PROVIDED (USED) BY FINANCING ACTIVITIES FROM CONTINUING OPERATIONS		
Proceeds from issuance of long-term debt	—	804
Repayment of long-term debt	—	(767)
Premium on long-term debt repayment	—	(59)
Proceeds from (repayment of) short-term debt	(195)	306
Debt issuance costs	—	(11)
Cash dividends paid	(33)	(33)
Stock based compensation employee withholding taxes paid in cash	(5)	(6)
Total cash flows provided (used) by financing activities from continuing operations	(233)	234
CASH PROVIDED (USED) BY CONTINUING OPERATIONS	(83)	198
Cash provided (used) by discontinued operations		
Operating cash flows	7	(79)
Investing cash flows	(9)	1
Total cash used by discontinued operations	(2)	(78)
Effect of currency exchange rate changes on cash and cash equivalents	4	1
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(81)	121
CASH AND CASH EQUIVALENTS - BEGINNING OF PERIOD	454	232
CASH AND CASH EQUIVALENTS - END OF PERIOD	$ 373	$ 353

(a) Excludes changes resulting from operations acquired, sold or held for sale.

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. These statements omit certain information and footnote disclosures required for complete annual financial statements and, therefore, should be read in conjunction with Ashland Global Holdings Inc. and consolidated subsidiaries (Ashland) Annual Report on Form 10-K for the fiscal year ended September 30, 2020. Results of operations for the period ended March 31, 2021 are not necessarily indicative of the expected results for the remaining quarters in the fiscal year. All amounts are presented in millions except per-share amounts.

Ashland's reportable segments include the consumer specialty businesses: Life Sciences and Personal Care & Household; the industrial specialty businesses: Specialty Additives and Performance Adhesives; and Intermediates and Solvents. Unallocated and Other includes corporate governance activities and certain legacy matters. For additional information, see Note Q.

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 pronouncements

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, 2020. The following standards relevant to Ashland were either issued or adopted in the current fiscal year or will become effective in a subsequent period.

In June 2016, the FASB issued amended accounting guidance related to the measurement of credit losses on financial instruments. The amended accounting guidance changes the impairment model for most financial assets to require measurement and recognition of expected credit losses for financial assets held. This guidance became effective for Ashland on October 1, 2020. As a result, Ashland recorded a $3 million increase in its allowance for credit losses, primarily related to asbestos receivables, and a $2 million decrease to retained earnings, net of tax, reflecting the cumulative effect on retained earnings.

Under the new expected credit loss model, Ashland records an allowance for credit losses inherent in its receivables from revenue transactions and reinsurance recoverables. The allowance for credit losses is a valuation account deducted from the amortized cost basis of the assets to present their net carrying value at the amount expected to be collected. Ashland estimates expected credit losses based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. When measuring expected credit losses, Ashland pools assets with similar country risk and credit risk characteristics. Each period the allowance for credit losses is adjusted through earnings to reflect expected credit losses over the remaining lives of the assets. For the three and six months ending March 31, 2021, no significant credit losses were incurred within the Statements of Consolidated Comprehensive Income (Loss).

NOTE B – ACQUISITIONS AND DIVESTITURES

Acquisitions

Personal Care & Household acquisition

On January 19, 2021, Ashland announced it had signed a definitive agreement to acquire the personal care business of Schülke & Mayr GmbH, a portfolio company of the global investment organization EQT.

Under the terms of the agreement, Ashland will pay €262.5 million in an all cash transaction, which is expected to be completed before the end of the June 30, 2021 quarter subject to customary closing conditions and required regulatory approvals.

During the three and six months ended March 31, 2021, Ashland incurred transaction costs of $5 million, including $3 million of losses associated with foreign currency derivatives entered into to mitigate the foreign exchange exposure of the expected purchase price. The costs are recorded within the Net income (loss) on acquisitions and divestitures caption in the Statements of Consolidated Comprehensive Income (Loss).

Divestitures

Composites and Marl facility

On August 30, 2019, Ashland completed the sale of its Composites business (excluding the Maleic business) and butanediol manufacturing facility in Marl, Germany to INEOS Enterprises (INEOS).

On September 30, 2020, Ashland completed the sale of its Maleic business to AOC Materials, LLC (AOC). Net proceeds from the sale were approximately $98 million.

The disposal of the Composites business and Maleic business represented a strategic shift and had a major effect on Ashland’s operations and financial results. The operating results and cash flows related to Composites and the Marl facility, including the Maleic business, have been reflected as discontinued operations in the Statements of Consolidated Comprehensive Income (Loss) and Statements of Condensed Consolidated Cash Flows. See Note C of the Notes to Condensed Consolidated Financial Statements for the results of operations for Composites and the Marl facility, including the Maleic business, for all periods presented.

Subsequent to the completion of the sale, Ashland is providing certain transition services to INEOS for a fee. While the transition services are expected to vary in duration depending upon the type of service provided, Ashland expects to reduce certain costs as the transition services are completed. Ashland recognized transition service fee income of $3 million during the three months ended March 31, 2021 and 2020, and $6 million during the six months ended March 31, 2021 and 2020.

Other manufacturing facility sales

During the six months ended March 31, 2021, Ashland completed the sale of a Specialty Additives facility, the assets and liabilities of which were classified as held for sale as of September 30, 2020. Net proceeds received from the sale were approximately $14 million in the December 31, 2020 quarter ($20 million in total including a deposit received in fiscal year 2020). The Company recognized a pre-tax gain of $14 million recorded within the Net income (loss) on acquisitions and divestitures caption in the Statements of Consolidated Comprehensive Income (Loss) for the six months ended March 31, 2021.

NOTE C– DISCONTINUED OPERATIONS

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.

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 six months ended March 31, 2021 and 2020.

	Three months ended March 31		Six months ended March 31	
(In millions)	2021	2020	2021	2020
Income (loss) from discontinued operations (net of tax)				
Composites/Marl facility	$ (1)	$ 4	$ (1)	$ 4
Valvoline	—	—	—	(1)
Asbestos	—	(7)	—	(7)
Water Technologies	1	—	—	(1)
Distribution	(1)	(2)	(2)	(2)
Gain (loss) on disposal of discontinued operations (net of taxes)				
Composites/Marl facility	(1)	(2)	(4)	(2)
	$ (2)	$ (7)	$ (7)	$ (9)

The following table presents a reconciliation of the captions within Ashland's Statements of Consolidated Comprehensive Income (Loss) for the income (loss) from discontinued operations attributable to Composites and the Marl facility for the three and six months ended March 31, 2020. The Maleic business, which was sold during fiscal 2020 to AOC, was operated under the Composites business and Marl facility disposal group and is therefore reported in discontinued operations.

	Three months ended March 31	Six months ended March 31
(In millions)	2020	2020
Income (loss) from discontinued operations attributable to Composites/Marl facility		
Sales	$ 17	$ 28
Cost of sales	(10)	(19)
Selling, general and administrative expense	(2)	(4)
Equity and other income	—	2
Pretax income of discontinued operations	5	7
Income tax expense	(1)	(3)
Income from discontinued operations	$ 4	$ 4

NOTE D – RESTRUCTURING ACTIVITIES

Company-wide restructuring activities

Ashland periodically implements company-wide restructuring programs related to acquisitions, divestitures and other cost reduction programs in order to enhance profitability through streamlined operations and an improved overall cost structure.

Fiscal 2020 and 2021 restructuring costs

Ashland incurred severance expense of zero and $14 million during the three months ended March 31, 2021 and 2020, respectively, and $8 million and $17 million during the six months ended March 31, 2021 and 2020, respectively, attributable to executive management changes and business management changes within the organization. As of March 31, 2021, the severance reserve associated with this transition was $24 million.

The following table details at March 31, 2021 and 2020, the amount of restructuring severance reserves related to this program. The severance reserves were primarily recorded within accrued expenses and other liabilities in the Condensed Consolidated Balance Sheet as of March 31, 2021 and 2020.

(In millions)	Severance costs
Balance at of September 30, 2020	39
Restructuring reserve	8
Utilization (cash paid)	(23)
Balance at March 31, 2021	$ 24

(In millions)	Severance costs
Balance at of September 30, 2019	—
Restructuring reserve	17
Utilization (cash paid)	(1)
Balance at March 31, 2020	$ 16

Fiscal 2018 restructuring costs

During fiscal 2018, Ashland initiated a company-wide cost reduction program as a result of ongoing strategic asset plans and activities. As part of this restructuring program, Ashland announced a voluntary severance offer to certain qualifying employees that was formally approved during 2018. Additionally, during fiscal 2018, an involuntary program for employees was also initiated as part of the restructuring program. No additional severance expense was recorded for the three and six months ended March 31, 2021 and 2020. As of March 31, 2021, the severance reserve for the company-wide restructuring program was zero.

The following table details at March 31, 2020, the amount of restructuring reserves related to the programs discussed above, and the related activity in these reserves during the six months ended March 31, 2020. The severance reserve was primarily recorded within accrued expenses and other liabilities in the Condensed Consolidated Balance Sheet as of March 31, 2020.

(In millions)	Severance costs
Balance at of September 30, 2019	7
Restructuring reserve	—
Utilization (cash paid)	(6)
Balance at March 31, 2020	$ 1

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 March 31, 2021.

(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	$ 373	$ 373	$ 373	$ —	$ —
Restricted investments (a)	332	332	332	—	—
Investment of captive insurance company (b)	9	9	9	—	—
Foreign currency derivatives	3	3	—	3	—
Total assets at fair value	$ 717	$ 717	$ 714	$ 3	$ —
Liabilities					
Foreign currency derivatives	$ 6	$ 6	$ —	$ 6	$ —

(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, 2020.

(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	$ 454	$ 454	$ 454	$ —	$ —
Restricted investments (a)	331	331	331	—	—
Investment of captive insurance company (b)	9	9	9	—	—
Foreign currency derivatives	1	1	—	1	—
Total assets at fair value	$ 795	$ 795	$ 794	$ 1	$ —
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.

Restricted investments

Investment income and realized gains and losses on these company-restricted investments are reported within the net interest and other expense caption on the Statements of Consolidated Comprehensive Income (Loss). The following table provides a summary of the activity within the investment portfolio as of March 31, 2021 and September 30, 2020:

(In millions)	March 31 2021	September 30 2020
Original cost	$ 335	$ 335
Accumulated adjustments, net (a)	(50)	(30)
Adjusted cost, beginning of year	285	305
Investment income (b)	8	10
Net unrealized gain (c)	45	46
Realized gains (c)	11	2
Settlement funds	1	3
Disbursements	(18)	(35)
Fair value	$ 332	$ 331

(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 fixed income mutual funds.
(c) Presented under the original cost method.

The following table presents gross unrealized gains and losses for the restricted investment securities as of March 31, 2021 and September 30, 2020:

(In millions)	Adjusted Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
As of March 31, 2021				
Demand deposit	$ 6	$ —	$ —	$ 6
Equity mutual fund	97	44	—	141
Fixed income mutual fund	184	4	(3)	185
	$ 287	$ 48	$ (3)	$ 332
As of September 30, 2020				
Demand deposit	$ 7	$ —	$ —	$ 7
Equity mutual fund	116	31	(1)	146
Fixed income mutual fund	162	16	—	178
	$ 285	$ 47	$ (1)	$ 331

The following table presents the investment income, net gains and losses realized and disbursements related to the investments within the portfolio for the three and six months ended March 31, 2021 and 2020.

	Three months ended March 31		Six months ended March 31	
(In millions)	2021	2020	2021	2020
Investment income	$ 3	$ 3	$ 8	$ 7
Net gains (losses) unrealized (a)	(7)	(32)	11	(23)
Disbursements	(10)	(9)	(18)	(19)

(a) Ashland determined that all unrealized gains and (losses) were related to equity securities with readily determinable fair values. Due to the new accounting guidance adopted in the first quarter of fiscal year 2019, the net unrealized gains and (losses) during the year ended September 30, 2019 and forward were recorded within the net interest and other expense caption in the Statements of Consolidated 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 except for a contract entered into during the current quarter to manage the foreign currency exposure related to a potential acquisition, which is reported within the net income (loss) from acquisitions and divestitures 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 six months ended March 31, 2021 and 2020 within the Statements of Consolidated Comprehensive Income (Loss).

	Three months ended March 31		Six months ended March 31	
(In millions)	2021	2020	2021	2020
Foreign currency derivative gains (a)	$ —	$ 3	$ 3	$ 4

(a) Includes a $3 million loss reported within the net income (loss) from acquisitions and divestitures caption for the three and six months ended March 31, 2021.

The following table summarizes the fair values of the outstanding foreign currency derivatives as of March 31, 2021 and September 30, 2020 included in accounts receivable and accrued expenses and other liabilities of the Condensed Consolidated Balance Sheets.

(In millions)	March 31 2021	September 30 2020
Foreign currency derivative assets	$ 3	$ 1
Notional contract values	196	170
Foreign currency derivative liabilities	$ 6	$ 3
Notional contract values	342	215

Other financial instruments

At March 31, 2021 and September 30, 2020, Ashland's long-term debt (including the current portion and excluding debt issuance cost discounts) had a carrying value of $1,588 million and $1,588 million, respectively, compared to a fair value of $1,712 million and $1,708 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.

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)	March 31, 2021	September 30, 2020
Finished products	$ 319	$ 336
Raw materials, supplies and work in process	193	193
	$ 512	$ 529

NOTE G – GOODWILL AND OTHER INTANGIBLES

Goodwill

Ashland tests goodwill and other indefinite-lived intangible assets for impairment annually as of July 1 and when events and circumstances indicate an impairment may have occurred. Ashland tests goodwill and other indefinite-lived intangible assets for impairment by comparing the estimated fair value of the reporting units (for goodwill) and other indefinite-lived intangible assets to the related carrying value. If the carrying amount of a reporting unit or other indefinite-lived intangible asset exceeds its estimated fair value, Ashland records an impairment loss based on the difference between fair value and carrying amount, in the case of reporting units, not to exceed to the associated carrying amount of goodwill.

No indicators of impairment were identified in the three and six months ended March 31, 2021.

Ashland's assessment of an impairment on any of these assets classified currently as having indefinite lives, including goodwill, could change in future periods if significant events happen and/or circumstances change that effect the previously mentioned assumptions such as: a significant change in projected business results, a divestiture decision, increase in Ashland's weighted-average cost of capital rates, decrease in growth rates or assumptions, economic deterioration that is more severe or of a longer duration than anticipated, or another significant economic event.

During the second quarter of fiscal 2020, Ashland realigned its operations into five reportable segments which resulted in a reassessment of the Company's reporting units used to evaluate goodwill impairment. The Company's reporting units align with its reportable segments. Ashland determined that its reporting units are Life Sciences, Personal Care & Household, Specialty Additives, Performance Adhesives, and Intermediates and Solvents. Prior to the business realignment, the reporting units consisted of Ashland Specialty Ingredients and Intermediates and Solvents. The Ashland Specialty Ingredients reporting unit contained all of Ashland's reported goodwill at September 30, 2019.

In conjunction with the realignment, Ashland tested goodwill for impairment for each reporting unit both immediately before and immediately after the business realignment. The fair values of the reporting units were determined using a combination of discounted cash flow models and valuations based on earnings multiples for guideline public companies in each reporting unit's industry peer group. Significant assumptions inherent in the valuation methodologies include estimates of future projected business results (principally revenue and EBITDA), long-term growth rates, and the weighted-average cost of capital.

The goodwill impairment test under the former reporting unit structure concluded that no impairment existed at the remeasurement date. Ashland then allocated goodwill to the new reporting unit structure using a relative fair value approach and re-assessed goodwill for impairment for each of its new reporting units. The impairment test under the new reporting unit structure concluded that the carrying value of the Personal Care & Household and the Specialty Additives reporting units exceeded their fair value, resulting in a non-cash goodwill impairment charge of $530 million, which was recorded within the Goodwill impairment caption within the Statement of Consolidated Comprehensive Income (Loss) for the three and six months ended March 31, 2020. The Personal Care & Household goodwill impairment charge was due in large part to lower growth and lower margins since the acquisition of the Oral Care and Avoca businesses, which collectively have resulted in reduced cash flow projections. The Specialty Additives goodwill impairment charge was also due in large part to lower growth and lower margins within the global construction and energy markets, which collectively have resulted in reduced cash flow projections.

The following is a progression of goodwill by reportable segment for the six months ended March 31, 2021.

(In millions)	Life Sciences	Personal Care & Household (a)	Specialty Additives (a)	Performance Adhesives	Intermediates and Solvents (a)	Total
Balance at September 30, 2020	$ 861	$ —	$ 444	$ 453	$ —	$ 1,758
Currency translation	(1)	—	3	—	—	2
Balance at March 31, 2021	$ 860	$ —	$ 447	$ 453	$ —	$ 1,760

(a)

As of March 31, 2021 and September 30, 2020, there were accumulated impairments of $356 million, $174 million and $90 million related to the Personal Care & Household, Specialty Additives and Intermediates and Solvents reportable segments, respectively.

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, as of July 1, indefinite-lived intangible assets for possible impairment or whenever events or changes in circumstances indicate that carrying amounts may not be recoverable.

Trademarks and trade names are valued using a “relief-from-royalty” valuation method compared to the carrying value. No indicators of impairment were identified in the three and six months ended March 31, 2021.

As a result of the business realignment executed during the second quarter of fiscal 2020, Ashland tested its indefinite-lived tangible assets for impairment and found no indicators of impairment.

Intangible assets were comprised of the following as of March 31, 2021 and September 30, 2020.

	March 31, 2021		
(In millions)	Gross carrying amount	Accumulated amortization	Net carrying amount
Definite-lived intangibles			
Trademarks and trade names	$ 66	$ (34)	$ 32
Intellectual property	721	(465)	256
Customer and supplier relationships	759	(354)	405
Total definite-lived intangibles	1,546	(853)	693
Indefinite-lived intangibles			
Trademarks and trade names	278	—	278
Total intangible assets	$ 1,824	$ (853)	$ 971

	September 30, 2020		
(In millions)	Gross carrying amount	Accumulated amortization	Net carrying amount
Definite-lived intangibles			
Trademarks and trade names	$ 66	$ (32)	$ 34
Intellectual property	721	(442)	279
Customer and supplier relationships	757	(335)	422
Total definite-lived intangibles	1,544	(809)	735
Indefinite-lived intangibles			
Trademarks and trade names	278	—	278
Total intangible assets	$ 1,822	$ (809)	$ 1,013

Amortization expense recognized on intangible assets was $22 million and $21 million for the three months ended March 31, 2021 and 2020, respectively, and $43 million and $42 million for the six months ended March 31, 2021 and 2020, respectively, and is included in the Intangibles Amortization Expense caption of the Statements of Consolidated Comprehensive Income (Loss). Estimated amortization expense for future periods is $87 million in 2021 (includes six months actual and six months estimated), $86 million in 2022, $86 million in 2023, $72 million in 2024 and $70 million in 2025. 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 AND OTHER FINANCING ACTIVITIES

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

(In millions)	March 31, 2021	September 30, 2020
4.750% notes, due 2022	$ 411	$ 411
2.00% Senior Notes, due 2028 (Euro 500 million principal)	586	587
6.875% notes, due 2043	282	282
Term loan A	250	250
Accounts receivable securitizations	62	177
6.50% junior subordinated notes, due 2029	56	55
Revolving credit facility	—	80
Other (a)	12	11
Total debt	1,659	1,853
Short-term debt (includes current portion of long-term debt)	(88)	(280)
Long-term debt (less current portion)	$ 1,571	$ 1,573

(a) Includes $14 million and $15 million of debt issuance cost discounts as of March 31, 2021 and September 30, 2020, respectively. Additionally, as of both March 31, 2021 and September 30, 2020, Other includes a European short-term loan facility with an outstanding balance of $23 million.

The scheduled aggregate maturities of long-term debt by year (including the current portion and excluding debt issuance costs) are as follows as of March 31, 2021: zero remaining in 2021, $421 million in 2022, $22 million in 2023, $44 million in 2024 and $175 million in 2025.

Accounts Receivable Facilities and Off-Balance Sheet Arrangements

U.S. Accounts Receivable Securitization Facility

On March 17, 2021, Ashland terminated its U.S. 2012 Accounts Receivable Securitization Facility. The program had no outstanding borrowings at its termination. This program did not meet the criteria for sale accounting and was reported as secured borrowing under ASC 860. At September 30, 2020, the outstanding amount of accounts receivable pledged was $151 million and borrowings under the facility totaled $84 million.

U.S. Accounts Receivable Sales Program

On March 17, 2021, Ashland entered, through a wholly-owned, bankruptcy-remote consolidated special purpose entity (SPE), into an agreement with a group of entities (buyers) to sell certain trade receivables, without recourse beyond the pledged receivables, of two U.S. based Ashland subsidiaries. Under the agreement, Ashland can transfer whole receivables up to a limit established by the buyer, which is currently set at $125 million between February and October of each year and up to $100 million all other times. Ashland's continuing involvement is limited to servicing the receivables, including billing, collections and remittance of payments to the buyers as well as a limited guarantee on over-collateralization. The arrangement terminates on May 31, 2023, unless terminated earlier pursuant to the terms of the agreement.

Ashland determined that any receivables transferred under this agreement are put presumptively beyond the reach of Ashland and its creditors, even in bankruptcy or other receivership. Ashland received a true sale at law and non-consolidation opinions from an independent qualified legal advisor to support the legal isolation of these receivables. Consequently, Ashland accounts for the receivables transferred to buyers as part of this agreement as sales under ASC 860. Ashland recognizes any gains or losses based on the excess of proceeds received net of buyer's discounts and fees compared to the carrying value of the assets. Proceeds received, net of buyer's discounts and fees, are recorded within the operating activities of the Statement of Condensed Consolidated Cash Flows. Losses on sale of assets, including related transaction expenses are recorded within the Net Interest and Other Costs caption of the Statement of Consolidated Comprehensive Income. Ashland regularly assesses its servicing obligations and records them as assets or liabilities when appropriate. Ashland also monitors its obligation with regards to the limited guarantee and records the resulting guarantee liability when warranted. When applicable, Ashland discloses the amount of the receivable that serves as over-collateralization as a restricted asset.

Through March 31, 2021, Ashland has not sold any receivables under this agreement. Accordingly, Ashland did not recognize any gains or losses within its Statement of Consolidated Comprehensive Income for the six months ended March 31, 2021. Ashland has recorded no sales against the buyer's limit, which was $107 million at March 31, 2021. Ashland transferred $130 million in receivables to the SPE as of March 31, 2021. Ashland did not record any assets or liabilities related to its service obligations and limited guarantee as of March 31, 2021 as no sales have occurred.

Foreign Accounts Receivable Securitization Facility

Ashland continues to maintain its foreign 2018 Accounts Receivable Securitization Facility. Ashland accounts for the foreign 2018 Accounts Receivable Securitization Facility as secured borrowings, and the receivables sold pursuant to the facility are included in the Consolidated Balance Sheets as accounts receivable. At March 31, 2021 and September 30, 2020, the outstanding amount of accounts receivable transferred by Ashland was $91 million and $131 million, respectively, and there were $62 million and $93 million, respectively, of borrowings (denominated in multiple currencies) under the facility.

Debt

Credit Agreement and Refinancing

During January 2020, Ashland LLC and Ashland Services B.V., indirect wholly owned subsidiaries of Ashland, entered into a senior unsecured credit agreement (the 2020 Credit Agreement) with a group of lenders. The 2020 Credit Agreement provides for (i) a $600 million unsecured five-year revolving credit facility (the Revolving Credit Facility) and (ii) a $250 million unsecured five-year term loan facility (the 2020 Term Loan Facility).

Ashland incurred $4 million of new debt issuance costs in connection with the 2020 Credit Agreement, of which $1 million was expensed immediately during the three and six months ended March 31, 2020 within the net interest and other expense caption of the Statements of Consolidated Comprehensive Income (Loss). The remaining balance is amortized using either the effective interest method or straight-line method. Additionally, as a result of the termination of the 2017 Credit Agreement, Ashland recognized a $1 million charge for the accelerated amortization of previously capitalized debt issuance costs during the three and six months ended March 31, 2020, which is included in the net interest and other expense caption of the Statements of Consolidated Comprehensive Income (Loss).

Note Issuance and existing notes tender

During January 2020, a subsidiary of Ashland, Ashland Services B.V., completed the issuance of 2.00% senior unsecured notes due 2028 with an aggregate principal amount of €500 million (the 2028 Notes).

Ashland incurred $8 million of new debt issuance costs in connection with the 2028 Notes, which is amortized using the effective interest method over the Notes' term.

Tender offers of 4.750% notes due 2022

During the three and six months ended March 31, 2020, Ashland executed open market repurchases of its 4.750% notes due 2022 (the 2022 Notes). As a result of these repurchases, the carrying values of the 2022 notes were reduced by $670 million. Ashland recognized a $5 million charge related to accelerated accretion on debt discounts and accelerated amortization of previously capitalized debt issuance costs, which is included in the net interest and other expense caption of the Statements of Consolidated Comprehensive Income (Loss) for the three and six months ended March 31, 2020.

Tender offers of 6.875% notes due 2043

During the three and six months ended March 31, 2020, Ashland executed open market repurchases of its 6.875% notes due 2043 (the 2043 Notes). As a result of these repurchases, the carrying values of the 2043 notes were reduced by $92 million. Ashland recognized a $1 million charge related to accelerated accretion on debt premiums and accelerated amortization previously capitalized debt issuance costs, which is included in the net interest and other expense caption of the Statements of Consolidated Comprehensive Income (Loss) for the three and six months ended March 31, 2020.

Tender offers of 6.500% Junior Subordinated Debentures due 2029

During the three and six months ended March 31, 2020, Ashland executed open market repurchases of Hercules LLC's 6.500% notes due 2029 (the 2029 Junior Debentures). As a result of these repurchases, the carrying values of the 2029 Junior Debentures were reduced by $2 million.

Total premiums paid for all tender offers noted above were $59 million, which is in included in the net interest and other expenses caption of the Statements of Consolidated Comprehensive Income (Loss) for the three and six months ended March 31, 2020.

Available borrowing capacity and liquidity

The borrowing capacity remaining under the 2020 $600 million Revolving Credit Facility was $581 million due to a reduction of $19 million for letters of credit outstanding as of March 31, 2021. Ashland's total borrowing capacity at March 31, 2021 was $610 million, which included $29 million of available capacity from the foreign 2018 Accounts Receivable Securitization Facility.

Additionally, Ashland has $107 million available liquidity under its current U.S. Accounts Receivable Sales Program.

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 March 31, 2021, 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 2020 Credit Agreement) is 4.0. At March 31, 2021, Ashland's calculation of the consolidated net leverage ratio was 2.4.

The minimum required consolidated interest coverage ratio under the 2020 Credit Agreement during its entire duration is 3.0. At March 31, 2021, Ashland's calculation of the interest coverage ratio was 8.1.

NOTE I – LEASING ARRANGEMENTS

Ashland determines if an arrangement is or contains a lease at contract inception and determines its classification as an operating or finance lease at lease commencement. Ashland leases certain office buildings, transportation equipment, warehouses and storage facilities, and equipment. All of Ashland's leases are operating leases. Real estate leases represent approximately 90% of the total lease liability. Operating lease assets and obligations are reflected within operating lease assets, net; current operating lease obligations; and non-current operating lease obligations captions on the Condensed Consolidated Balance Sheets.

Lease expense for these leases is recognized on a straight-line basis over the lease term, with variable lease payments recognized in the period those payments are incurred. The components of lease cost recognized within our Statements of Consolidated Comprehensive Income (Loss) were as follows:

		Three months ended March 31		Six months ended March 31	
(In millions)	Location	2021	2020	2021	2020
Lease cost:					
Operating lease cost	Selling, General & Administrative	$ 4	$ 3	$ 7	$ 8
Operating lease cost	Cost of Sales	3	3	7	6
Variable lease cost	Selling, General & Administrative	1	2	1	2
Variable lease cost	Cost of Sales	1	2	2	4
Short-term leases	Cost of Sales	1	2	2	3
Total lease cost		$ 10	$ 12	$ 19	$ 23

The following table summarizes Ashland's lease assets and liabilities as presented in the Condensed Consolidated Balance Sheet:

(In millions)	March 31, 2021	September 30, 2020
Assets		
Operating lease assets, net	$ 132	$ 137
Total lease assets	$ 132	$ 137
Liabilities		
Current operating lease obligations	$ 23	$ 23
Non-current operating lease obligations	119	124
Total lease liabilities	$ 142	$ 147

Ashland often has options to renew lease terms for buildings and other assets. The exercise of lease renewal options are generally at Ashland's sole discretion. In addition, certain lease arrangements may be terminated prior to their original expiration date at Ashland's discretion. Ashland evaluates renewal and termination options at the lease commencement date to determine if it is reasonably certain to exercise the option on the basis of economic factors. The weighted average remaining lease term for operating leases as of March 31, 2021 and September 30, 2020 was approximately 15 years for each period.

Residual value guarantees are not common within Ashland's lease agreements nor are restrictions or covenants imposed by leases. Ashland has elected the practical expedient to combine lease and non-lease components. The discount rate implicit within the leases is generally not determinable. Therefore, Ashland determines the discount rate based on its incremental borrowing rate. The incremental borrowing rate is determined using a buildup method resulting in an estimated range of secured borrowing rates matching the lease term and the currency of the jurisdiction in which lease payments are made, adjusted for impacts of collateral. Consideration was given to Ashland's own relevant debt issuances as well as debt instruments of comparable companies with similar credit characteristics. The weighted average discount rate used to measure operating lease liabilities as of March 31, 2021 and September 30, 2020 was 3.1% and 2.9%, respectively. There are no leases that have not yet commenced but that create significant rights and obligations for Ashland.

Right-of-use assets exchanged for new operating lease obligations were $6 million and $1 million for the three months ended March 31, 2021 and 2020, respectively, and $10 million and $2 million for the six months ended March 31, 2021 and 2020.

Cash paid for amounts included in the measurement of operating lease liabilities:

	Three months ended March 31		Six months ended March 31	
(In millions)	2021	2020	2021	2020
Operating cash flows from operating leases	$ 8	$ 5	$ 15	$ 14

Maturity Analysis of Lease Liabilities

Maturities of lease liabilities are shown below as of March 31, 2021 and September 30, 2020:

(In millions)	March 31, 2021	September 30, 2020
Remainder of 2021	$ 14	$ 28
2022	38	35
2023	18	17
2024	14	13
2025	12	11
Thereafter	$ 89	$ 88
Total lease payments	185	192
Less amount of lease payment representing interest	(43)	(45)
Total present value of lease payments	$ 142	$ 147

NOTE J – INCOME TAXES

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 zero percent for the three and six months ended March 31, 2021.

The current quarter tax rate was impacted by jurisdictional income mix, as well as $7 million from favorable tax discrete items primarily related to uncertain tax positions. The current six months tax rate was impacted by $20 million from favorable tax discrete items primarily related to the Specialty Additives facility sale and uncertain tax positions.

Prior fiscal year

The overall effective tax rate was a benefit of 2% for the three months ended March 31, 2020 and 6% for the six months ended March 31, 2020. The quarter tax rate was impacted by nondeductible goodwill impairment of $527 million of the $530 million charge taken during the quarter. The six months period was impacted by the nondeductible goodwill impairment and a favorable tax discrete item from the tax benefit related to the Swiss Tax Reform.

Unrecognized tax benefits

Changes in unrecognized tax benefits are summarized as follows for the six months ended March 31, 2021.

(In millions)		
Balance at October 1, 2020	$	171
Increases related to positions taken on items from prior years		1
Increases related to positions taken in the current year		8
Settlements		(15)
Lapse of statute of limitations		(2)
Balance at March 31, 2021	$	163

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 $40 million and $50 million for continuing operations. 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 K - EMPLOYEE BENEFIT PLANS

Plan contributions

For the six months ended March 31, 2021, Ashland contributed $4 million to its non-U.S. pension plans and zero to its U.S. pension plans. Ashland expects to make additional contributions of approximately $1 million to its non-U.S. plans and $2 million to its U.S. pension plans during the remainder of fiscal 2021.

Components of net periodic benefit costs (income)

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

(In millions)	Pension benefits 2021	Pension benefits 2020	Other postretirement benefits 2021	Other postretirement benefits 2020
Three months ended March 31				
Service cost	$ 1	$ 1	$ —	$ —
Interest cost	2	2	—	—
Expected return on plan assets	(2)	(2)	—	—
Curtailment	—	—	—	—
Total net periodic benefit costs	$ 1	$ 1	$ —	$ —
Six months ended March 31				
Service cost	$ 3	$ 2	$ —	$ —
Interest cost	3	3	1	1
Expected return on plan assets	(4)	(4)	—	—
Curtailment	—	—	—	—
Total net periodic benefit costs	$ 2	$ 1	$ 1	$ 1

For segment reporting purposes, service cost is proportionately allocated to each segment, excluding the Unallocated and other segment, and is recorded within the selling, general and administrative expense and cost of sales captions on the Statements of Consolidated Comprehensive Loss (Income). All other components are recorded within the other net periodic benefit income caption on the Statements of Consolidated Comprehensive Loss (Income), which netted to zero for all periods presented.

NOTE L – LITIGATION, CLAIMS AND CONTINGENCIES

Asbestos litigation

Ashland is subject to liabilities from claims alleging personal injury caused by exposure to asbestos. Such claims result from indemnification obligations undertaken in 1990 in connection with the sale of Riley Stoker Corporation (Riley) and the acquisition of Hercules in November 2008. Although Riley, a former subsidiary, was neither a producer nor a manufacturer of asbestos, its industrial boilers contained some asbestos-containing components provided by other companies. Hercules, an indirect wholly-owned subsidiary of Ashland, 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 sold by one of Hercules' former subsidiaries to a limited industrial market.

To assist in developing and annually updating independent reserve estimates for future asbestos claims and related costs given various assumptions for Ashland and Hercules asbestos claims, Ashland retained Nathan Associates Inc. (Nathan). 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.

	Six months ended March 31		Years ended September 30		
(In thousands)	2021	2020	2020	2019	2018
Open claims - beginning of year	49	53	53	53	54
New claims filed	1	1	2	2	2
Claims settled	—	—	(1)	(1)	(1)
Claims dismissed	(3)	(4)	(5)	(1)	(2)
Open claims - end of period	47	50	49	53	53

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 fiscal year 2020, it was determined that the liability for Ashland asbestos-related claims should be increased by $13 million. Total reserves for asbestos claims were $320 million at March 31, 2021 compared to $335 million at September 30, 2020.

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

	Six months ended March 31		Years ended September 30		
(In millions)	2021	2020	2020	2019	2018
Asbestos reserve - beginning of year	$ 335	$ 352	$ 352	$ 380	$ 419
Reserve adjustment	—	—	13	1	(8)
Amounts paid	(15)	(15)	(30)	(29)	(31)
Asbestos reserve - end of period (a)	$ 320	$ 337	$ 335	$ 352	$ 380

(a)

Included $29 million classified in accrued expenses and other liabilities on the Condensed Consolidated Balance Sheets as of March 31, 2021 and September 30, 2020.

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 March 31, 2021, Ashland's receivable for recoveries of litigation defense and claim settlement costs from insurers amounted to $96 million (excluding the Hercules receivable for asbestos claims) compared to $103 million at September 30, 2020. During fiscal year 2020, 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 $1 million increase in the receivable for probable insurance recoveries.

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

	Six months ended March 31		Years ended September 30		
(In millions)	2021	2020	2020	2019	2018
Insurance receivable - beginning of year	$ 103	$ 123	$ 123	$ 140	$ 155
Receivable adjustment (a)	(2)	—	1	(5)	(5)
Insurance settlement	—	(10)	(10)	—	—
Amounts collected	(5)	(4)	(11)	(12)	(10)
Insurance receivable - end of period (b)	$ 96	$ 109	$ 103	$ 123	$ 140

(a) The six months ended March 31, 2021 includes a $2 million adjustment related to allowances for credit losses as a result of Ashland's adoption of the new credit measurement standard described in Note A.

(b) Included $14 million classified in accounts receivable on the Condensed Consolidated Balance Sheets as of March 31, 2021 and September 30, 2020.

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.

	Six months ended March 31		Years ended September 30		
(In thousands)	2021	2020	2020	2019	2018
Open claims - beginning of year	12	13	13	13	12
New claims filed	1	—	1	1	2
Claims dismissed	(1)	—	(2)	(1)	(1)
Open claims - end of period	12	13	12	13	13

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 fiscal year 2020, it was determined that the liability for Hercules asbestos-related claims should be decreased by $3 million. Total reserves for asbestos claims were $220 million at March 31, 2021 compared to $229 million at September 30, 2020.

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

	Six months ended March 31		Years ended September 30		
(In millions)	2021	2020	2020	2019	2018
Asbestos reserve - beginning of year	$ 229	$ 252	$ 252	$ 282	$ 323
Reserve adjustments	—	—	(3)	(10)	(19)
Amounts paid	(9)	(10)	(20)	(20)	(22)
Asbestos reserve - end of period (a)	$ 220	$ 242	$ 229	$ 252	$ 282

(a) Included $22 million classified in accrued expenses and other liabilities on the Condensed Consolidated Balance Sheets as of both March 31, 2021 and September 30, 2020.

Hercules asbestos-related receivables

For the Hercules asbestos-related obligations, certain reimbursement obligations pursuant to coverage-in-place agreements with insurance carriers exist. 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 March 31, 2021, Ashland's receivable for recoveries of litigation defense and claims costs from insurers with respect to Hercules amounted to $46 million. During fiscal year 2020, 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 $2 million in the receivable for probable insurance recoveries.

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

	Six months ended March 31		Years ended September 30		
(In millions)	2021	2020	2020	2019	2018
Insurance receivable - beginning of year	$ 47	$ 49	$ 49	$ 54	$ 68
Receivable adjustment (a)	(1)	—	(2)	(5)	(14)
Insurance receivable - end of period	$ 46	$ 49	$ 47	$ 49	$ 54

(a) The six months ended March 31, 2021 includes a $1 million adjustment related to allowances for credit losses as a result of Ashland's adoption of the new credit measurement standard described in Note A.

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 $520 million for the Ashland asbestos-related litigation (current reserve of $320 million) and approximately $350 million for the Hercules asbestos-related litigation (current reserve of $220 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 March 31, 2021, such locations included 82 sites where Ashland has been identified as a potentially responsible party under Superfund or similar state laws, 113 current and former operating facilities (including certain operating facilities conveyed as part of previous divestitures) and about 1,225 service station properties, of which 24 are being actively remediated.

Ashland's reserves for environmental remediation and related environmental litigation amounted to $193 million at March 31, 2021 compared to $200 million at September 30, 2020, of which $142 million at March 31, 2021 and $150 million at September 30, 2020 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 six months ended March 31, 2021 and 2020.

	Six months ended March 31	
(In millions)	2021	2020
Reserve - beginning of period	$ 200	$ 186
Disbursements	(23)	(19)
Revised obligation estimates and accretion	16	11
Reserve - end of period	$ 193	$ 178

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 March 31, 2021 and September 30, 2020, Ashland's recorded receivable for these probable insurance recoveries was $14 million and $15 million, of which $11 million and $12 million at March 31, 2021 and September 30, 2020, respectively, was classified in other noncurrent assets on the Condensed Consolidated Balance Sheets.

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 six months ended March 31, 2021 and 2020.

	Three months ended March 31		Six months ended March 31	
(In millions)	2021	2020	2021	2020
Environmental expense	$ 10	$ 8	$ 15	$ 10
Accretion	1	1	1	1
Legal expense	—	1	1	3
Total expense	11	10	17	14
Insurance receivable	—	(3)	(1)	(3)
Total expense, net of receivable activity (a)	$ 11	$ 7	$ 16	$ 11

(a) Net expense of $2 million and $3 million for the three and six months ended March 31, 2021, respectively, and $2 million for both the three and six months ended March 31, 2020, relates to divested businesses which qualified for treatment as discontinued operations 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 $460 million. The largest reserve for any site is 14% 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 March 31, 2021 and September 30, 2020. 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 March 31, 2021.

NOTE M – 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 1 million and 2 million at March 31, 2021 and 2020, respectively. Earnings per share is reported under the treasury stock method.

	Three months ended March 31		Six months ended March 31	
(In millions, except per share data)	2021	2020	2021	2020
Numerator				
Numerator for basic and diluted EPS -				
Income (loss) from continuing operations	$ 43	$ (575)	$ 104	$ (541)
Denominator				
Denominator for basic EPS - Weighted-average common shares outstanding	61	61	61	61
Share based awards convertible to common shares (a)	1	—	1	—
Denominator for diluted EPS - Adjusted weighted-average shares and assumed conversions	62	61	62	61
EPS from continuing operations				
Basic	$ 0.70	$ (9.48)	$ 1.71	$ (8.93)
Diluted	0.69	(9.48)	1.69	(8.93)

(a) As a result of the loss from continuing operations attributable to Ashland during the three and six months ended March 31, 2020, the effect of the share-based awards convertible to common shares would be antidilutive and have been excluded from the diluted EPS calculation.

NOTE N – EQUITY ITEMS

Stockholder dividends

Dividends of 27.5 cents per share were paid in the first and second quarters of fiscal 2021 and fiscal 2020.

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.

	2021			2020		
(In millions)	Before tax	Tax (expense) benefit	Net of tax	Before tax	Tax (expense) benefit	Net of tax
Three months ended March 31						
Other comprehensive income (loss)						
Unrealized translation gain (loss)	$ (33)	$ (1)	$ (34)	$ (52)	$ —	$ (52)
Total other comprehensive income (loss)	$ (33)	$ (1)	$ (34)	$ (52)	$ —	$ (52)
Six months ended March 31						
Other comprehensive income (loss)						
Unrealized translation gain (loss)	$ 15	$ (1)	$ 14	$ (14)	$ —	$ (14)
Total other comprehensive income (loss)	$ 15	$ (1)	$ 14	$ (14)	$ —	$ (14)

Summary of stockholders' equity

A reconciliation of changes in stockholders' equity are as follows:

	Three months ended March 31		Six months ended March 31	
(In millions)	2021	2020	2021	2020
Common stock and paid in capital				
Balance, beginning of period	$ 771	$ 758	$ 770	$ 757
Common shares issued under stock incentive and other plans (a)	2	8	3	9
Balance, end of period	773	766	773	766
Retained earnings				
Balance, beginning of period	2,686	3,239	2,649	3,224
Adoption of new accounting pronouncements	—	—	(2)	—
Net income (loss)	41	(582)	97	(550)
Regular dividends	(17)	(16)	(34)	(33)
Balance, end of period	2,710	2,641	2,710	2,641
Accumulated other comprehensive income (loss)				
Balance, beginning of period	(335)	(372)	(383)	(410)
Unrealized translation gain (loss)	(34)	(52)	14	(14)
Balance, end of period	(369)	(424)	(369)	(424)
Total stockholders' equity	$ 3,114	$ 2,983	$ 3,114	$ 2,983
Cash dividends declared per common share	$ 0.275	$ 0.275	$ 0.550	$ 0.550

(a) Common shares issued were 41,512 shares and 208,564 for the three months ended March 31, 2021 and 2020, respectively, and 140,706 shares and 279,025 shares for the six months ended March 31, 2021 and 2020, respectively.

NOTE O – STOCK INCENTIVE PLANS

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

	Three months ended March 31		Six months ended March 31	
(In millions)	2021 (a)	2020 (b)	2021 (a)	2020 (b)
SARs	$ —	$ 1	$ 1	$ 3
Nonvested stock awards	4	3	6	5
Performance share awards	1	—	3	1
	$ 5	$ 4	$ 10	$ 9

(a) Included $1 million and $2 million of expense related to cash-settled nonvested restricted stock awards and zero related to cash-settled performance units during the three and six months ended March 31, 2021.

(b) Included zero and $1 million of expense related to cash-settled nonvested restricted stock awards and zero related to cash-settled performance units during the three and six months ended March 31, 2020.

NOTE P – REVENUE

Revenue recognition

Ashland's revenue is measured as the amount of consideration it expects to receive in exchange for transferring goods or providing services and is recognized when performance obligations are satisfied under the terms of contracts with customers. Ashland generally utilizes standardized language for the terms of contracts, unless a separate agreement has been entered into with a customer that supersedes the standard language.

A performance obligation is deemed to be satisfied by Ashland when control of the product or service is transferred to the customer. The transaction price of a contract, or the amount Ashland expects to receive upon satisfaction of all performance obligations, is determined by reference to the contract's terms and includes adjustments, if applicable, for any variable consideration, such as volume discounts, rebates, refunds and right to return. Where a contract contains more than one distinct performance obligation, the transaction price is allocated to each performance obligation based on the standalone selling price of each performance obligation, although these situations do not occur frequently and are generally not included within Ashland's contracts. Any unsatisfied performance obligations are not material. Standalone selling prices are based on prices Ashland charges to customers, which in some cases is based on established market prices. Ashland generally collects the cash from its customers within 60 days of the product delivery date. Sales and other similar taxes collected from customers on behalf of third parties are excluded from the contract price.

All of Ashland's revenue is derived from contracts with customers, and nearly all contracts with customers contain one performance obligation for the transfer of goods where such performance obligation is satisfied at a point in time. Control of a product is deemed to be transferred to the customer generally upon shipment or delivery. Costs for shipping and handling activities, whether performed before or after the customer obtains control of the goods, are accounted for as fulfillment costs when not reimbursed.

Costs incurred to obtain contracts with customers have historically not been significant and are expensed immediately as the amortization period is generally one year or less. Ashland estimates expected credit losses based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the customers receivable amount.

Trade receivables

Trade receivables are defined as receivables arising from contracts with customers and are recorded within the accounts receivable caption within the Condensed Consolidated Balance Sheets. Ashland's trade receivables were $418 million and $441 million as of March 31, 2021 and September 30, 2020, respectively. See Note H for additional information on Ashland's program to sell certain receivables on a revolving basis to third party banks up to an aggregate purchase limit.

Disaggregation of revenue

Ashland disaggregates its revenue by segment and geographical region as Ashland believes these categories best depict how management reviews the financial performance of its operations. See the following tables for details. See Note Q for additional information.

Sales by geography

(In millions)	Three months ended March 31 2021	Three months ended March 31 2020	Six months ended March 31 2021	Six months ended March 31 2020
Life Sciences				
North America	$ 60	$ 59	$ 111	$ 108
Europe	60	63	114	112
Asia Pacific	47	43	94	85
Latin America & other	18	19	36	35
	$ 185	$ 184	$ 355	$ 340

(In millions)	Three months ended March 31 2021	Three months ended March 31 2020	Six months ended March 31 2021	Six months ended March 31 2020
Personal Care & Household				
North America	$ 42	$ 50	$ 83	$ 91
Europe	57	69	103	124
Asia Pacific	22	22	43	46
Latin America & other	16	18	33	35
	$ 137	$ 159	$ 262	$ 296

(In millions)	Three months ended March 31 2021	Three months ended March 31 2020	Six months ended March 31 2021	Six months ended March 31 2020
Specialty Additives				
North America	$ 48	$ 53	$ 93	$ 98
Europe	62	59	114	109
Asia Pacific	39	33	80	68
Latin America & other	9	10	18	19
	$ 158	$ 155	$ 305	$ 294

(In millions)	Three months ended March 31 2021	Three months ended March 31 2020	Six months ended March 31 2021	Six months ended March 31 2020
Performance Adhesives				
North America	$ 73	$ 73	$ 141	$ 137
Europe	11	9	21	16
Asia Pacific	2	1	7	3
Latin America & other	2	2	4	3
	$ 88	$ 85	$ 173	$ 159

(In millions)	Three months ended March 31 2021	Three months ended March 31 2020	Six months ended March 31 2021	Six months ended March 31 2020
Intermediates and Solvents				
North America	$ 20	$ 23	$ 40	$ 37
Europe	8	6	12	11
Asia Pacific	7	6	14	13
Latin America & other	2	2	3	3
	$ 37	$ 37	$ 69	$ 64

NOTE Q – 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 and EBITDA are the primary measures of performance that are 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.

Reportable Segments

Ashland's reportable segments include Life Sciences, Personal Care & Household, Specialty Additives, Performance Adhesives and Intermediates and Solvents. Unallocated and Other includes corporate governance activities and certain legacy matters. Ashland has also provided subtotals by its consumer and industrial businesses to reflect the end markets served by each reportable segment.

Reportable segment business descriptions

Consumer Specialties

The Consumer Specialties business is comprised of the following reportable segments:

Life Sciences is comprised of pharmaceuticals, nutrition, nutraceuticals, agricultural chemicals, advanced materials and fine chemicals. Pharmaceutical solutions include controlled release polymers, disintegrants, film coatings, solubilizers, and tablet binders. Nutrition solutions include thickeners, stabilizers, emulsifiers and additives for enhancing mouthfeel, controlling moisture migration, reducing oil uptake and controlling color. Nutraceutical solutions include products for weight management, joint comfort, stomach and intestinal health, sports nutrition and general wellness, and providing custom formulation, toll processing and particle engineering solutions. Customers include pharmaceutical, food, beverage, nutraceuticals and supplements manufacturers, hospitals and radiologists and industrial manufacturers.

Personal Care & Household is comprised of biofunctionals, preservatives, skin care, sun care, oral care, hair care and household. These businesses have a broad range of nature-based, biodegradable, and performance-enhancing ingredients for customer-driven solutions to help protect, renew, moisturize and revitalize skin and hair, and provide solutions for toothpastes, mouth washes and rinses, denture cleaning and care for teeth. Household supplies nature-derived rheology ingredients, biodegradable surface wetting agents, performance encapsulates, and specialty polymers for household, industrial and institutional cleaning products. Customers include formulators at large multinational branded consumer products companies and smaller, independent boutique companies.

Industrial Specialties

The Industrial Specialties business is comprised of the following reportable segments:

Specialty Additives is comprised of rheology- and performance-enhancing additives serving the coatings, construction, energy, automotive and various industrial markets. Solutions include coatings additives for architectural paints, finishes and lacquers, cement- and gypsum- based dry mortars, ready-mixed joint compounds, synthetic plasters for commercial and residential construction, and specialty materials for industrial applications. Products include rheology modifiers (cellulosic and associative thickeners), foam-control agents, surfactants and wetting agents, pH neutralizers, advanced ceramics used in catalytic converters, and environmental filters, ingredients that aid the manufacturing process of ceramic capacitors, plasma display panels and solar cells, ingredients for textile printing, thermoplastic metals and alloys for welding. Products help improve desired functional outcomes through rheology modification and control, water retention, workability, adhesive strength, binding power, film formation, deposition and suspension and emulsification. Customers include global paint manufacturers, electronics and automotive manufacturers, textile mills, the construction industry, and welders.

Performance Adhesives is comprised of adhesives used in packaging, converting and structural applications. Packaging adhesives has an extensive line of pressure sensitive adhesives, functional coatings and primers combined with innovative technology solutions for narrow-, mid- and wide-web applications. Products meet stringent requirements in food and beverage safety, shipping, transportation, health and beauty, industrial, postage and security printing. Structural adhesives include light weighting vehicles and eliminating VOCs in buildings. Customers include converters of packaging materials, manufacturers of building materials and tier one suppliers to transportation industry.

Other

Intermediates and Solvents is comprised of the production of 1,4 butanediol (BDO) and related derivatives, including 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 provided to Life Sciences, Personal Care, and Specialty Additives for use as a raw material.

Unallocated and Other generally includes items such as certain significant company-wide restructuring activities, corporate governance costs and legacy costs or activities 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, certain corporate governance costs and other costs or activities 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 six months ended March 31, 2021 and 2020.

	Three months ended March 31		Six months ended March 31	
(In millions - unaudited)	2021	2020	2021	2020
SALES				
Life Sciences	$ 185	$ 184	$ 355	$ 340
Personal Care & Household	137	159	262	296
Consumer Specialties	322	343	617	636
Specialty Additives	158	155	305	294
Performance Adhesives	88	85	173	159
Industrial Specialties	246	240	478	453
Intermediates and Solvents	37	37	69	64
Intersegment sales (a)				
Intermediates and Solvents	(7)	(10)	(15)	(10)
	$ 598	$ 610	$ 1,149	$ 1,143
OPERATING INCOME (LOSS)				
Life Sciences	$ 35	$ 36	$ 64	$ 58
Personal Care & Household	19	(336)	33	(326)
Consumer Specialties	54	(300)	97	(268)
Specialty Additives (b)	19	(161)	21	(152)
Performance Adhesives	19	16	39	27
Industrial Specialties	38	(145)	60	(125)
Intermediates and Solvents	3	(2)	5	(14)
Unallocated and other	(24)	(21)	(50)	(44)
	$ 71	$ (468)	$ 112	$ (451)
DEPRECIATION EXPENSE				
Life Sciences	$ 8	$ 8	$ 17	$ 16
Personal Care & Household	9	10	19	20
Consumer Specialties	17	18	36	36
Specialty Additives	16	16	33	32
Performance Adhesives	3	3	6	6
Industrial Specialties	19	19	39	38
Intermediates and Solvents	4	3	6	6
	$ 40	$ 40	$ 81	$ 80
AMORTIZATION EXPENSE				
Life Sciences	$ 7	$ 7	$ 14	$ 14
Personal Care & Household	10	9	19	18
Consumer Specialties	17	16	33	32
Specialty Additives	5	4	9	8
Performance Adhesives	—	1	—	1
Industrial Specialties	5	5	9	9
Intermediates and Solvents	—	—	1	1
	$ 22	$ 21	$ 43	$ 42
EBITDA (c)				
Life Sciences	$ 50	$ 51	$ 95	$ 88
Personal Care & Household	38	(317)	71	(288)
Consumer Specialties	88	(266)	166	(200)
Specialty Additives	40	(141)	63	(112)
Performance Adhesives	22	20	45	34
Industrial Specialties	62	(121)	108	(78)
Intermediates and Solvents	7	1	12	(7)
Unallocated and other	(24)	(21)	(50)	(44)
	$ 133	$ (407)	$ 236	$ (329)

(In millions - unaudited)	March 31 2021	September 30 2020
TOTAL ASSETS		
Life Sciences	$ 1,943	$ 1,974
Personal Care & Household	888	939
Consumer Specialties	2,831	2,913
Specialty Additives	1,640	1,666
Performance Adhesives	598	591
Industrial Specialties	2,238	2,257
Intermediates and Solvents	157	161
Unallocated and other	1,438	1,546
	$ 6,664	$ 6,877

(a) Intersegment sales from Intermediates and Solvents are accounted for at prices that approximate fair value. All other intersegment sales are accounted for at cost.

(b) Includes a capital project impairment of $9 million for the six months ended March 31, 2021 relating to a long-term capital project plan change at a plant facility.

(c) Excludes income (loss) from discontinued operations, other net periodic benefit income (expense) and net income (loss) on divestitures. See the Statement of Consolidated Comprehensive Income (Loss) for applicable amounts excluded.

FORWARD-LOOKING STATEMENTS

This Quarterly Report on 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. Ashland may from time to time make forward-looking statements in its Annual Report to Shareholders, 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 and expected effects of the COVID-19 pandemic on Ashland's business, 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, cost savings 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 impact of acquisitions and/or divestitures Ashland has made or may make, including the proposed acquisition of Schülke & Mayr's personal care business (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); execution risks associated with Ashland's growth strategies; the competitive nature of Ashland's business; severe weather, natural disasters, public health crises (including the COVID-19 pandemic), cyber events and legal proceedings and claims (including product recalls, environmental and asbestos matters); the effects of the COVID-19 pandemic on the geographies in which Ashland operates, the end markets Ashland serves and on Ashland's supply chain and customers; and 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. Various risks and uncertainties may cause actual results to differ materially from those stated, projected or implied by any forward-looking statements. The extent and duration of the COVID-19 pandemic on our business and operations is uncertain. Factors that influence the impact on our business and operations include the duration and extent of the pandemic, the extent of imposed or recommended containment and mitigation measures, and the general economic consequences of the pandemic. 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 specialty materials company with a conscious and proactive mindset for sustainability. The Company serves customers in a wide range of consumer and industrial markets, including adhesives, architectural coatings, automotive, construction, energy, food and beverage, nutraceuticals, personal care and pharmaceutical. With approximately 4,200 employees worldwide, Ashland serves customers in more than 100 countries.

Ashland's sales generated outside of North America were 60% for the three and six months ended March 31, 2021 and 2020, respectively. Sales by region expressed as a percentage of total consolidated sales for the three and six months ended March 31 were as follows:

	Three months ended March 31		Six months ended March 31	
Sales by Geography	2021	2020	2021	2020
North America (a)	40%	40%	40%	40%
Europe	33%	35%	32%	33%
Asia Pacific	19%	17%	20%	19%
Latin America & other	8%	8%	8%	8%
	100%	100%	100%	100%

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

Reportable segments

Ashland's reportable segments include Life Sciences, Personal Care & Household, Specialty Additives, Performance Adhesives and Intermediates and Solvents. Unallocated and Other includes corporate governance activities and certain legacy matters. Ashland has also provided subtotals by its consumer and industrial businesses to reflect the end markets served by each reportable segment. The contribution to sales by each reportable segment expressed as a percentage of total consolidated sales for the three and six months ended March 31 were as follows:

	Three months ended March 31		Six months ended March 31	
Sales by Reportable Segment	2021	2020	2021	2020
Life Sciences	31%	30%	31%	30%
Personal Care & Household	23%	26%	23%	26%
Consumer Specialties	54%	56%	54%	56%
Specialty Additives	27%	25%	27%	25%
Performance Adhesives	14%	14%	14%	14%
Industrial Specialties	41%	39%	41%	39%
Intermediates and Solvents	5%	5%	5%	5%
	100%	100%	100%	100%

KEY DEVELOPMENTS

Business results current quarter

Ashland recorded net income of $41 million (income of $43 million in continuing operations and loss of $2 million in discontinued operations) and net loss of $582 million (loss of $575 million in continuing operations and loss of $7 million in discontinued operations) in the current and prior year quarters, respectively. Significant items impacting Ashland's continuing operations between periods included unplanned plant shutdown costs of $11 million in the current quarter as a result of winter storms in the U.S. Gulf Coast, a non-cash goodwill impairment charge of $530 million related to the Personal Care & Household and Specialty Additives segments in the prior year quarter and debt restructuring costs of $67 million in the prior year quarter. Ashland's EBITDA of $126 million increased by $540 million, primarily due to the $530 million impairment charge during the prior year quarter, while Ashland's Adjusted EBITDA was $134 million for the current quarter compared to $142 million in the prior year quarter. (see U.S. GAAP reconciliation below under consolidated review). The decrease in Adjusted EBITDA results was primarily due to unfavorable volume and higher costs driven by the unplanned plant shutdowns associated with the winter storms in the U.S. Gulf Coast during the current quarter. These items were offset by lower selling, general and administrative expense as a result of cost reduction programs.

Uncertainty relating to the COVID-19 pandemic

Ashland continues to closely monitor the impact of the COVID-19 pandemic on all aspects of its business and geographies, including how it will impact customers, employees, suppliers, vendors, business partners and distribution channels. Ashland is unable to predict the impact that the COVID-19 pandemic will have on its future financial position and operating results due to numerous uncertainties. These uncertainties include the severity of the virus, the duration of the outbreak, governmental, business or other actions, impacts on Ashland's supply chain, the effect on customer demand, or changes to Ashland's operations. The health of Ashland's workforce and its ability to meet staffing needs throughout the critical functions cannot be predicted and is vital to operations. Further, the impacts of a potential worsening of global economic conditions and the continued disruptions to, and volatility in, the credit and financial markets, consumer spending as well as other unanticipated consequences remain unknown. In addition, Ashland cannot predict the impact that the COVID-19 pandemic will have on its customers, vendors, suppliers and other business partners; however, any material effect on these parties could adversely impact Ashland.

Ashland continues to successfully navigate the uncertain environment associated with the COVID-19 pandemic. This includes the execution of shelter in place, social distancing and deep cleaning process requirements. Through the second quarter of fiscal year 2021, Ashland has not experienced any additional major operating surprises related to the COVID-19 pandemic, continues to maintain a robust supply chain in a challenging environment, had strong safety performance in the face of unprecedented pressures and improved operating discipline across each of its businesses. The consumer specialties businesses continued to show resiliency in the face of difficult economic circumstances. The industrial specialties businesses and the Intermediates and Solvents business experienced downward pressure on demand as a result of the COVID-19 pandemic's impact on those businesses' end markets in 2020, with improved conditions through the second quarter of 2021. However, Ashland's overall liquidity remains strong and Ashland is able to meet its operating cash needs and other investing and financing cash requirements at this time, including those necessary to grow the business as economic conditions continue to improve.

The situation surrounding the COVID-19 pandemic remains fluid, and Ashland is actively managing its response in collaboration with customers, government officials, team members and business partners. For further information regarding the impact of the COVID-19 pandemic on the Company, please see Item 1A, Risk Factors in Ashland's most recent Form 10-K filed with the SEC.

Other items

Operational business model changes and restructurings

During the second quarter of fiscal year 2020, Ashland changed the manner in which it manages the business moving from a functionally led to a business led organization. This new business-centric operational redesign of core operating systems and processes lead to a realignment in both the selling, general and administrative and research and development costs (SARD) associated with each business. In addition to the realignment of SARD, a productivity review with a focus on cost of goods sold (COGS) was also initiated. Based on these initiatives, Ashland is currently targeting the following savings:

- $50 million of incremental SARD cost savings
- $50 million of incremental COGS productivity savings

Ashland achieved over 90% of its target run-rate SARD cost savings and approximately 80% of its COGS productivity savings, in total representing about $86 million in annualized run-rate savings under these initiatives as of March 31, 2021. Ashland expects to be substantially complete with these initiatives by the end of calendar year 2021.

Personal Care & Household acquisition

On January 19, 2021, Ashland announced it had signed a definitive agreement to acquire the personal care business of Schülke & Mayr GmbH, a portfolio company of the global investment organization EQT.

Under the terms of the agreement, Ashland will pay €262.5 million in an all cash transaction, which is expected to be completed before the end of the June 30, 2021 quarter subject to customary closing conditions and required regulatory approvals.

During the three and six months ended March 31, 2021, Ashland incurred transaction costs of $5 million, including $3 million of losses associated with foreign currency derivatives entered into to mitigate the foreign exchange exposure of the expected purchase price. The costs are recorded within the Net income (loss) on acquisitions and divestitures caption in the Statements of Consolidated Comprehensive Income (Loss).

RESULTS OF OPERATIONS – CONSOLIDATED REVIEW

Consolidated review

Net income

Ashland’s net income is primarily affected by results within operating income, net interest and other 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 March 31, 2021 and 2020 included the following:

- Ashland’s net income/loss amounted to income of $41 million compared to a loss of $582 million for the three months ended March 31, 2021 and 2020, respectively, or income of $0.66 and loss of $9.61 diluted earnings per share, respectively.
- Discontinued operations, which are reported net of taxes, resulted in a loss of $2 million and $7 million during the three months ended March 31, 2021 and 2020, respectively.
- Income/loss from continuing operations, which excludes results from discontinued operations, amounted to income of $43 million and a loss of $575 million for the three months ended March 31, 2021 and 2020, respectively.
- Results from continuing operations include a goodwill impairment charge of $530 million during the prior year quarter related to the Personal Care & Household and the Specialty Additives segments.
- The effective income tax rates were an expense of zero percent and a benefit of 2% for the three months ended March 31, 2021 and 2020, respectively, and were significantly impacted by certain tax discrete items in both the current and prior year quarters.
- Ashland incurred pretax net interest and other expense of $23 million and $117 million for the three months ended March 31, 2021 and 2020, respectively. This includes losses of $4 million and $29 million on restricted investments, respectively, for the current and prior year quarters, as well as charges for $59 million and $8 million for debt refinancing costs and accelerated debt issuance costs, respectively, for the prior year quarter.
- Net income (loss) on divestitures totaled a loss of $5 million for the three months ended March 31, 2021.
- Operating income/loss was an income of $71 million and a loss of $468 million for the three months ended March 31, 2021 and 2020, respectively.

Year-to-date – Key financial results for the six months ended March 31, 2021 and 2020 included the following:

- Ashland’s net income/loss amounted to income of $97 million compared to a loss of $550 million for the six months ended March 31, 2021 and 2020, respectively, or income of $1.57 and loss of $9.08 diluted earnings per share, respectively.

- Discontinued operations, which are reported net of taxes, resulted in a loss of $7 million and $9 million during the six months ended March 31, 2021 and 2020, respectively.
- Income/loss from continuing operations, which excludes results from discontinued operations, amounted to income of $104 million and a loss of $541 million for the six months ended March 31, 2021 and 2020, respectively.
- Results from continuing operations include a goodwill impairment charge of $530 million during the prior year period related to the Personal Care & Household and the Specialty Additives segments.
- The effective income tax rates were an expense of zero percent and a benefit of 6% for the six months ended March 31, 2021 and 2020, respectively, and were significantly impacted by certain tax discrete items in both the current and prior year periods.
- Ashland incurred pretax net interest and other expense of $17 million and $127 million for the six months ended March 31, 2021 and 2020, respectively. This includes income of $19 million and losses of $16 million on restricted investments, respectively, for the current and prior year periods, as well as charges for $59 million and $8 million for debt refinancing costs and accelerated debt issuance costs, respectively, for the prior year period.
- Net income on divestitures totaled income of $9 million and $3 million for the six months ended March 31, 2021 and 2020, respectively.
- Operating income/loss was income of $112 million and a loss of $451 million for the six months ended March 31, 2021 and 2020, 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

<u>Current Quarter</u> – Operating income/loss amounted to income of $71 million and loss of $468 million for the three months ended March 31, 2021 and 2020, respectively. The current and prior year quarters' operating income included certain key items that were excluded to arrive at Adjusted EBITDA and are quantified in the table below in the "EBITDA and Adjusted EBITDA" section. These operating key items for the applicable periods are summarized as follows:

- Restructuring, separation and other costs – Ashland periodically implements company-wide cost reduction programs related to acquisitions, divestitures and other cost reduction programs in order to enhance profitability through streamlined operations and an improved overall cost structure. Ashland often incurs severance, facility and integration costs associated with these programs. See Note D in the Notes to Condensed Consolidated Financial Statements for further information on the restructuring activities.
- Goodwill impairment – During the prior year quarter, Ashland realigned its operations into five reportable segments which resulted in a reassessment of the Company's reporting units used to evaluate goodwill impairment. The impairment test under the new reporting unit structure concluded that the carrying value of the Personal Care & Household and the Specialty Additives reporting units exceeded their fair value, resulting in a non-cash goodwill impairment charge.
- Lower of cost or net realizable value inventory adjustment – Inventories are carried at the lower of cost or net realizable value. When comparing the stated value of its inventory to its net realizable value, Ashland determined that an adjustment was required for the prior year quarter.

Operating income/loss for both the three months ended March 31, 2021 and 2020 included depreciation and amortization of $62 million and $61 million, respectively.

<u>Year-to-date</u> – Operating income/loss amounted to income of $112 million and loss of $451 million for the six months ended March 31, 2021 and 2020, respectively. The current and prior year periods' operating income included certain key items that were excluded to arrive at Adjusted EBITDA and are quantified in the table below in the "EBITDA and Adjusted EBITDA" section. These operating key items for the applicable periods are summarized as follows:

- Restructuring, separation and other costs – Ashland periodically implements company-wide cost reduction programs related to acquisitions, divestitures and other cost reduction programs in order to enhance profitability through streamlined operations and an improved overall cost structure. Ashland often incurs severance, facility and integration costs associated with these programs. See Note D in the Notes to Condensed Consolidated Financial Statements for further information on the restructuring activities.

- Goodwill impairment – During the prior year period, Ashland realigned its operations into five reportable segments which resulted in a reassessment of the Company's reporting units used to evaluate goodwill impairment. The impairment test under the new reporting unit structure concluded that the carrying value of the Personal Care & Household and the Specialty Additives reporting units exceeded their fair value, resulting in a non-cash goodwill impairment charge.
- Lower of cost or net realizable value inventory adjustment – Inventories are carried at the lower of cost or net realizable value. When comparing the stated value of its inventory to its net realizable value, Ashland determined that an adjustment was required for the prior year period.
- During the current year period, Ashland incurred an impairment charge associated with a long-term capital project plan change at a plant facility.

Operating income/loss for the six months ended March 31, 2021 and 2020 included depreciation and amortization of $124 million and $122 million, respectively.

Non-operating key items affecting EBITDA

- Net income (loss) on acquisitions and divestitures – Ashland recorded a loss of $5 million and income of $9 million during the three and six months ended March 31, 2021, respectively. This includes a $5 million expense relating to transaction costs associated with acquisitions during the three months ended March 31, 2021 and a $14 million gain related to the sale of a Specialty Additives facility during the three months ended December 31, 2021.

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 six months ended March 31, 2021 and 2020.

	Three months ended March 31			Six months ended March 31		
(In millions)	2021	2020	Change	2021	2020	Change
Sales	$ 598	$ 610	$ (12)	$ 1,149	$ 1,143	$ 6

The following table provides a reconciliation of the change in sales for the three and six months ended March 31, 2021 and 2020.

(In millions)	Three months ended March 31, 2021	Six months ended March 31, 2021
Volume	$ (26)	$ (13)
Pricing	(2)	(7)
Currency exchange	16	26
Change in sales	$ (12)	$ 6

<u>Current Quarter</u> – Sales for the current quarter decreased $12 million compared to the prior year quarter. Unfavorable volume and product pricing decreased sales by $26 million and $2 million, respectively. These decreases were partially offset by favorable foreign currency exchange which increased sales $16 million.

<u>Year-to-date</u> – Sales for the current year increased $6 million compared to the prior year period. Unfavorable volume and product pricing decreased sales by $13 million and $7 million, respectively. These decreases were more than offset by favorable foreign currency exchange which increased sales $26 million.

	Three months ended March 31			Six months ended March 31		
(In millions)	2021	2020	Change	2021	2020	Change
Cost of sales	$ 407	$ 413	$ (6)	$ 781	$ 793	$ (12)
Gross profit as a percent of sales	31.9%	32.3%		32.0%	30.6%	

The following table provides a reconciliation of the change in cost of sales between the three and six months ended March 31, 2021 and 2020.

(In millions)	Three months ended March 31, 2021	Six months ended March 31, 2021
Changes in:		
Volume	$ (14)	$ (3)
Price/mix	(13)	(27)
Currency exchange	6	12
Operating costs	15	6
Change in cost of sales	$ (6)	$ (12)

Current Quarter – Cost of sales for the current quarter decreased $6 million compared to the prior year quarter. Price/mix and lower volume decreased cost of sales by $13 million and $14 million, respectively. These decreases were partially offset by higher operating costs, that includes an $11 million impact for unplanned plant shut-downs associated with winter storms in the U.S. Gulf Coast during the quarter, and foreign currency exchange which increased cost of sales by $15 million and $6 million, respectively.

Year-to-date – Cost of sales for the current year decreased $12 million compared to the prior year period. Price/mix and lower volume decreased cost of sales by $27 million and $3 million, respectively. These decreases were partially offset by higher operating costs, including the winter storm impact of $11 million, and foreign currency exchange which increased cost of sales by $6 million and $12 million, respectively.

	Three months ended March 31			Six months ended March 31		
(In millions)	2021	2020	Change	2021	2020	Change
Selling, general and administrative expense	$ 84	$ 103	$ (19)	$ 190	$ 202	$ (12)
As a percent of sales	14.0%	16.9%		16.5%	17.7%	

Current Quarter – Selling, general and administrative expense for the current quarter decreased $19 million compared to the prior year quarter with expenses as a percent of sales decreasing 2.9 percentage points. Key drivers of the fluctuation in selling, general and administrative expense compared to the prior year quarter were:

- $1 million and $14 million of key items for severance, lease abandonment and other restructuring costs during the three months ended March 31, 2021 and 2020, respectively;
- Unfavorable environmental expense of $4 million;
- Unfavorable currency exchange of $4 million during the three months ended March 31, 2021.

The remaining decrease was mainly due to achieved cost savings during the three months ended March 31, 2021 from restructuring programs initiated in fiscal year 2020.

Year-to-date – Selling, general and administrative expense for the current year decreased $12 million compared to the prior year period with expenses as a percent of sales decreasing 1.2 percentage points. Key drivers of the fluctuation in selling, general and administrative expense compared to the prior year period were:

- $13 million and $21 million of key items for severance, lease abandonment and other restructuring costs during the six months ended March 31, 2021 and 2020, respectively;
- $9 million related to a capital project impairment during the six months ended March 31, 2021;
- Unfavorable environmental expense of $4 million; and
- Unfavorable currency exchange of $6 million during the six months ended March 31, 2021.

The remaining decrease was mainly due to achieved cost savings during the six months ended March 31, 2021 from restructuring programs initiated in fiscal year 2020.

(In millions)	Three months ended March 31 2021	2020	Change	Six months ended March 31 2021	2020	Change
Research and development expense	$ 14	$ 18	$ (4)	$ 29	$ 34	$ (5)

Current Quarter – The decrease is due to $2 million of one-time research and development credit charges in the prior year quarter and achieved cost savings from the restructuring programs initiated in fiscal 2020.

Year-to-date – The decrease is due to $2 million of one-time research and development credit charges in the prior year period and achieved cost savings from the restructuring programs initiated in fiscal 2020.

(In millions)	Three months ended March 31 2020	2019	Change	Six months ended March 31 2021	2020	Change
Intangibles amortization expense	$ 22	$ 21	$ 1	$ 43	$ 42	$ 1

Current Quarter – Amortization expense is relatively consistent with the prior year quarter.

Year-to-date – Amortization expense is relatively consistent with the prior year period.

(In millions)	Three months ended March 31 2021	2020	Change	Six months ended March 31 2021	2020	Change
Goodwill impairment	$ —	$ 530	$ (530)	$ —	$ 530	$ (530)

Current Quarter – Ashland recorded an impairment charge of $530 million in the prior year quarter. See Note G for additional details.

Year-to-Date – Ashland recorded an impairment charge of $530 million in the prior year period.

(In millions)	Three months ended March 31 2021	2020	Change	Six months ended March 31 2021	2020	Change
Equity and other income						
Other income	$ —	$ 7	$ (7)	$ 6	$ 7	$ (1)
	$ —	$ 7	$ (7)	$ 6	$ 7	$ (1)

Current Quarter – Other income for the prior year quarter was primarily due to a liquidation gain of $3 million and China subsidies of $2 million.

Year-to-date – Other income was primarily related to a gain on sale of excess corporate property of roughly $4 million in the current year and a liquidation gain of $3 million and China subsidies of $2 million in the prior year period.

(In millions)	Three months ended March 31 2021	2020	Change	Six months ended March 31 2021	2020	Change
Net interest and other expense (income)						
Interest expense	$ 17	$ 28	$ (11)	$ 33	$ 51	$ (18)
Interest income	—	—	—	—	(1)	1
Loss on early retirement of debt	—	59	(59)	—	59	(59)
Loss (income) from restricted investments	4	29	(25)	(19)	16	(35)
Other financing costs	2	1	1	3	2	1
	$ 23	$ 117	$ (94)	$ 17	$ 127	$ (110)

Current Quarter - Net interest and other expense decreased by $94 million during the current quarter compared to the prior year quarter. Interest expense decreased $11 million primarily due to lower cost of debt and lower debt levels during the current quarter compared to the prior year quarter excluding accelerated debt issuance costs and original issuance discount costs. Ashland incurred $8 million of accelerated debt issuance costs and original issuance discount costs, as well as $59 million of debt refinancing costs during the prior year quarter. Restricted investments included losses of $4 million compared to $29 million for the three months ended March 31, 2021 and 2020, respectively. See Note E for more information on the restricted investments.

Year-to-date - Net interest and other expense decreased by $110 million during the current year compared to the prior year period. Interest expense decreased $18 million primarily due to lower cost of debt and lower debt levels during the current year compared to the prior year period excluding accelerated debt issuance costs and original issuance discount costs. Ashland incurred $8 million of accelerated debt issuance costs and original issuance discount costs, as well as $59 million of debt refinancing costs during the prior year period. Restricted investments included income of $19 million compared to losses of $16 million for the six months ended March 31, 2021 and 2020, respectively. See Note E for more information on the restricted investments.

	Three months ended March 31			Six months ended March 31		
(In millions)	2021	2020	Change	2021	2020	Change
Net income (loss) on acquisitions and divestitures	$ (5)	$ —	$ (5)	$ 9	$ 3	$ 6

The activity in the current year was related to a $5 million expense associated with acquisition related transactional costs (including losses associated with foreign currency derivatives) and a $14 million gain related to the sale of a Specialty Additives facility. The activity in the prior year related to post-closing adjustments for certain divestitures.

	Three months ended March 31			Six months ended March 31		
(In millions)	2021	2020	Change	2021	2020	Change
Income tax expense (benefit)	$ —	$ (10)	$ 10	$ —	$ (34)	$ 34
Effective tax rate	0%	2%		0%	6%	

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 zero percent for the three months ended March 31, 2021. The current quarter tax rate was impacted by jurisdictional income mix, as well as favorable discrete items of $7 million primarily related to uncertain tax positions.

The overall effective tax rate was a benefit of 2% for the three months ended March 31, 2020 and was impacted by a nondeductible goodwill impairment of $527 million of the $530 million charge taken during the prior year quarter.

Year-to-date – 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 zero percent for the six months ended March 31, 2021. The current quarter tax rate was impacted by jurisdictional income mix, as well as favorable discrete items of $20 million primarily related to the sale of a Specialty Additives facility.

The overall effective tax rate was 6% for the six months ended March 31, 2020 and was primarily impacted by nondeductible goodwill impairment of $527 million as well as $25 million favorable tax discrete items from the tax benefit related to the Swiss Tax Reform enacted in the first quarter of fiscal 2020.

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 six months ended March 31, 2021 and 2020 was significantly impacted by the following tax specific key items:

- Uncertain tax positions – Includes the impact from the settlement of uncertain tax positions with various taxing authorities;
- Restructuring and separation activity – Includes the impact from company-wide cost reduction programs, and the impact of the sale of a Specialty Additives facility; and
- Other tax reform – Includes the impact from other items related to The Tax Cut and Jobs Act (Tax Act) and other tax law changes including Swiss Tax Reform. The Swiss Tax Reform benefit is an estimate based on ten year income projections and is subject to approval by the Swiss tax authorities. Ashland will monitor this amount and make adjustments as appropriate in future periods. These adjustments also include the impact from the deductibility of compensation items and miscellaneous state tax items.

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

	Three months ended March 31		Six months ended March 31	
(In millions)	2021	2020	2021	2020
Income (loss) from continuing operations before income taxes	$ 43	$ (585)	$ 104	$ (575)
Key items (pre-tax) (a)	13	648	2	646
Adjusted income from continuing operations before income taxes	$ 56	$ 63	$ 106	$ 71
Income tax expense (benefit)	$ —	$ (10)	$ —	$ (34)
Income tax rate adjustments:				
Tax effect of key items	2	21	(2)	20
Tax specific key items: (b)				
Uncertain tax positions	7	—	7	—
Restructuring and separation activity	—	—	13	—
Other tax reform	—	—	—	25
Total income tax rate adjustments	9	21	18	45
Adjusted income tax expense	$ 9	$ 11	$ 18	$ 11
Effective tax rate, excluding key items (Non-GAAP) (c)	16%	18%	18%	16%

(a) See Adjusted EBITDA reconciliation table disclosed in this MD&A 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 disclosed in this MD&A.

(c) Due to rounding conventions, the effective tax rate presented may not recalculate precisely based on the numbers disclosed within this table.

(In millions)	Three months ended March 31 2021	2020	Change	Six months ended March 31 2021	2020	Change
Income (loss) from discontinued operation (net of taxes)						
Composites/Marl facility	$ (1)	$ 4	$ (5)	$ (1)	$ 4	$ (5)
Valvoline	—	—	—	—	(1)	1
Water Technologies	1	—	1	—	(1)	1
Distribution	(1)	(2)	1	(2)	(2)	—
Asbestos	—	(7)	7	—	(7)	7
Gain (loss) on disposal of discontinued operations (net of taxes)						
Composites/Marl facility	(1)	(2)	1	(4)	(2)	(2)
	$ (2)	$ (7)	$ 5	$ (7)	$ (9)	$ 2

Current Quarter – The activity for Water Technologies, Distribution and Composites/Marl facility during the current and prior year quarters was related to post-closing adjustments. In the prior year quarter, as a result of the divestiture of the Composites segment and Marl facility, the related operating results were reflected as discontinued operations (net of tax) within the Statements of Consolidated Comprehensive Income (Loss). For the Maleic business component of the Composites business not sold to INEOS, the sales and pre-tax operating income included in discontinued operations were $17 million and $5 million, respectively, for the prior year quarter. Asbestos activity in the prior year quarter relates to insurance settlement activity.

Year-to-date – The activity for Valvoline, Water Technologies, Distribution and Composites/Marl facility during the current and prior year periods was related to post-closing adjustments. In the prior year period, as a result of the divestiture of the Composites segment and Marl facility, the related operating results were reflected as discontinued operations (net of tax) within the Statements of Consolidated Comprehensive Income (Loss). For the Maleic business component of the Composites business not sold to INEOS, the sales and pre-tax operating income included in discontinued operations were $28 million and $7 million, respectively, for the prior year period. Asbestos activity in the prior year period relates to insurance settlement activity.

Other comprehensive income (loss)

A comparative analysis of the components of other comprehensive income is provided below for the three and six months ended March 31, 2021 and 2020.

(In millions)	Three months ended March 31 2021	2020	Change	Six months ended March 31 2021	2020	Change
Other comprehensive income (loss) (net of taxes)						
Unrealized translation gain (loss)	$ (34)	$ (52)	$ 18	$ 14	$ (14)	$ 28
	$ (34)	$ (52)	$ 18	$ 14	$ (14)	$ 28

Current Quarter – Total other comprehensive income (loss), net of tax, for the current quarter increased $18 million compared to the prior year quarter primarily as a result of the following:

- For the three months ended March 31, 2021, the change in unrealized gain (loss) from foreign currency translation adjustments resulted in a loss of $34 million compared to a loss of $52 million for the three months ended March 31, 2020. The fluctuations in unrealized translation gains and losses are primarily due to translating foreign subsidiary financial statements from local currencies to U.S. Dollars.

Year-to-date – Total other comprehensive income (loss), net of tax, for the current year increased $28 million compared to the prior year period primarily as a result of the following:

- For the six months ended March 31, 2021, the change in unrealized gain (loss) from foreign currency translation adjustments resulted in a gain of $14 million compared to a loss of $14 million for the six months ended March 31, 2020. The fluctuations in unrealized translation gains and losses are primarily due to translating foreign subsidiary financial statements from local currencies to U.S. Dollars.

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 expenses, and depreciation and amortization.
- Adjusted EBITDA – EBITDA adjusted for noncontrolling interests, discontinued operations, net income (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 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.
- Adjusted diluted earnings per share (EPS) excluding intangibles amortization expense – Adjusted earnings per share adjusted for intangibles amortization expense 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 Adjusted diluted EPS, excluding intangibles amortization expense metric enables Ashland to demonstrate the impact of non-cash intangibles amortization expense on EPS, in addition to the key items previously mentioned. Ashland's management believes this presentation is helpful to illustrate how previous acquisitions impact applicable period results.

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 may provide 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 2020 Credit Agreement are based on similar non-GAAP measures and are defined further in the sections that refer to this metric.

EBITDA and Adjusted EBITDA

EBITDA totaled income of $126 million and a loss of $414 million for the three months ended March 31, 2021 and 2020, respectively, and income of $238 million and a loss of $335 million for the six months ended March 31, 2021 and 2020, 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 previously described. Management believes the use of such non-GAAP measures on a consolidated and reportable segment basis assists investors in understanding the ongoing operating performance by presenting the financial results between periods on a more comparable basis.

	Three months ended March 31		Six months ended March 31	
(In millions)	2021	2020	2021	2020
Net income (loss)	$ 41	$ (582)	$ 97	$ (550)
Income tax expense (benefit)	—	(10)	—	(34)
Net interest and other expense	23	117	17	127
Depreciation and amortization	62	61	124	122
EBITDA	126	(414)	238	(335)
Loss from discontinued operations (net of tax)	2	7	7	9
Key items included in EBITDA:				
Restructuring, separation and other costs	1	15	13	22
Goodwill impairment	—	530	—	530
Inventory adjustment	—	4	—	4
Capital project impairment	—	—	9	—
Net gain (loss) on acquisitions and divestitures	5	—	(9)	—
Total key items included in EBITDA	6	549	13	556
Adjusted EBITDA	$ 134	$ 142	$ 258	$ 230
Total key items included in EBITDA	$ 6	$ 549	$ 13	$ 556
Accelerated amortization of debt issuance costs	—	8	—	8
Debt refinancing costs	—	59	—	59
Unrealized (gain) loss on securities	7	32	(11)	23
Total key items, before tax	$ 13	$ 648	$ 2	$ 646

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 diluted 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 March 31		Six months ended March 31	
	2021	2020	2021	2020
Diluted EPS from continuing operations (as reported)	$ 0.69	$ (9.48)	$ 1.69	$ (8.93)
Key items, before tax:				
Restructuring, separation and other costs	0.02	0.23	0.21	0.35
Capital project impairment	—	—	0.16	—
Unrealized (gain) loss on securities	0.11	0.53	(0.18)	0.38
Goodwill impairment	—	8.75	—	8.75
Inventory adjustment	—	0.06	—	0.06
Accelerated amortization of debt issuance costs	—	0.13	—	0.13
Debt refinancing costs	—	0.97	—	0.97
Net gain (loss) on acquisitions and divestitures	0.08	—	(0.16)	—
Key items, before tax	0.21	10.67	0.03	10.64
Tax effect of key items (a)	(0.03)	(0.35)	0.03	(0.33)
Key items, after tax	0.18	10.32	0.06	10.31
Tax specific key items:				
Restructuring and separation activity	—	—	(0.22)	—
Uncertain tax positions	(0.10)	—	(0.10)	—
Other tax reform related activity	—	—	—	(0.41)
Tax specific key items (b)	(0.10)	—	(0.32)	(0.41)
Total key items	0.08	10.32	(0.26)	9.90
Adjusted diluted EPS from continuing operations (non-GAAP)	$ 0.77	$ 0.84	$ 1.43	$ 0.97
Amortization expense adjustment (net of tax) (c)	$ 0.28	$ 0.28	$ 0.55	$ 0.56
Adjusted diluted EPS from continuing operations (non-GAAP) excluding intangibles amortization expense	$ 1.05	$ 1.12	$ 1.98	$ 1.53

(a) Represents the diluted EPS impact from the tax effect of the key items that are 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 Statements of Consolidated Comprehensive Income (Loss) caption review section above.

(c) Amortization expense adjustment (net of tax) tax rates were 21% and 20% for the three months ended March 31, 2021 and 2020, respectively, and 21% and 20% for the six months ended March 31, 2021 and 2020.

RESULTS OF OPERATIONS – REPORTABLE SEGMENT REVIEW

Ashland’s reportable segments include Life Sciences, Personal Care & Household, Specialty Additives, Performance Adhesives and Intermediates and Solvents. Unallocated and Other includes corporate governance activities and certain legacy matters. Ashland has also provided subtotals by its consumer and industrial businesses to reflect the end markets served by each reportable segment.

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 companies. Ashland allocates all significant costs to its reportable segments except for certain significant company-wide restructuring activities, certain corporate governance costs and other costs or activities 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 discloses sales, operating income, depreciation and amortization and EBITDA by reportable segment for the three and six months ended March 31, 2021 and 2020.

(In millions - unaudited)	Three months ended March 31 2021	Three months ended March 31 2020	Six months ended March 31 2021	Six months ended March 31 2020
SALES				
Life Sciences	$ 185	$ 184	$ 355	$ 340
Personal Care & Household	137	159	262	296
Consumer Specialties	322	343	617	636
Specialty Additives	158	155	305	294
Performance Adhesives	88	85	173	159
Industrial Specialties	246	240	478	453
Intermediates and Solvents	37	37	69	64
Intersegment sales (a)				
Intermediates and Solvents	(7)	(10)	(15)	(10)
	$ 598	$ 610	$ 1,149	$ 1,143
OPERATING INCOME (LOSS)				
Life Sciences	$ 35	$ 36	$ 64	$ 58
Personal Care & Household	19	(336)	33	(326)
Consumer Specialties	54	(300)	97	(268)
Specialty Additives (b)	19	(161)	21	(152)
Performance Adhesives	19	16	39	27
Industrial Specialties	38	(145)	60	(125)
Intermediates and Solvents	3	(2)	5	(14)
Unallocated and other	(24)	(21)	(50)	(44)
	$ 71	$ (468)	$ 112	$ (451)
DEPRECIATION EXPENSE				
Life Sciences	$ 8	$ 8	$ 17	$ 16
Personal Care & Household	9	10	19	20
Consumer Specialties	17	18	36	36
Specialty Additives	16	16	33	32
Performance Adhesives	3	3	6	6
Industrial Specialties	19	19	39	38
Intermediates and Solvents	4	3	6	6
	$ 40	$ 40	$ 81	$ 80
AMORTIZATION EXPENSE				
Life Sciences	$ 7	$ 7	$ 14	$ 14
Personal Care & Household	10	9	19	18
Consumer Specialties	17	16	33	32
Specialty Additives	5	4	9	8
Performance Adhesives	—	1	—	1
Industrial Specialties	5	5	9	9
Intermediates and Solvents	—	—	1	1
	$ 22	$ 21	$ 43	$ 42
EBITDA (c)				
Life Sciences	$ 50	$ 51	$ 95	$ 88
Personal Care & Household	38	(317)	71	(288)
Consumer Specialties	88	(266)	166	(200)
Specialty Additives	40	(141)	63	(112)
Performance Adhesives	22	20	45	34
Industrial Specialties	62	(121)	108	(78)
Intermediates and Solvents	7	1	12	(7)
Unallocated and other	(24)	(21)	(50)	(44)
	$ 133	$ (407)	$ 236	$ (329)

(a) Intersegment sales from Intermediates and Solvents are accounted for at prices that approximate fair value. All other intersegment sales are accounted for at cost.

(b) Includes a capital project impairment of $9 million for the six months ended March 31, 2021 relating to a long-term capital project plan change at a plant facility.

(c) Excludes income (loss) from discontinued operations, other net periodic benefit income (expense) and net income (loss) on divestitures. See the Statement of Consolidated Comprehensive Income (Loss) for applicable amounts excluded.

Consumer Specialties

The Consumer Specialties business is comprised of the following reportable segments:

Life Sciences

Life Sciences is comprised of pharmaceuticals, nutrition, nutraceuticals, agricultural chemicals, advanced materials and fine chemicals. Pharmaceutical solutions include controlled release polymers, disintegrants, film coatings, solubilizers, and tablet binders. Nutrition solutions include thickeners, stabilizers, emulsifiers and additives for enhancing mouthfeel, controlling moisture migration, reducing oil uptake and controlling color. Nutraceutical solutions include products for weight management, joint comfort, stomach and intestinal health, sports nutrition and general wellness, and providing custom formulation, toll processing and particle engineering solutions. Customers include pharmaceutical, food, beverage, nutraceuticals and supplements manufacturers, hospitals and radiologists and industrial manufacturers.

Personal Care & Household

Personal Care & Household is comprised of biofunctionals, preservatives, skin care, sun care, oral care, hair care and household. These businesses have a broad range of nature-based, biodegradable, and performance-enhancing ingredients for customer-driven solutions to help protect, renew, moisturize and revitalize skin and hair, and provide solutions for toothpastes, mouth washes and rinses, denture cleaning and care for teeth. Household supplies nature-derived rheology ingredients, biodegradable surface wetting agents, performance encapsulates, and specialty polymers for household, industrial and institutional cleaning products. Customers include formulators at large multinational branded consumer products companies and smaller, independent boutique companies.

March 2021 quarter compared to March 2020 quarter

Consumer Specialties’ sales decreased $21 million to $322 million in the current quarter. Life Sciences represented an increase of $1 million, offset by a decrease of $22 million for Personal Care & Household. Favorable currency exchange increased sales by $9 million for the Consumer Specialties business. This increase was more than offset by product pricing and lower volume which decreased sales by $1 million and $29 million, respectively.

Operating income increased $354 million to income of $54 million for the current quarter. Life Sciences and Personal Care & Household recorded income of $35 million and $19 million, respectively. Favorable price/mix, favorable foreign currency exchange, lower costs and a prior year goodwill impairment related to Personal Care & Household increased operating income by $2 million, $7 million, $10 million and $356 million, respectively. These increases were partially offset by lower volume and storm related unplanned plant shutdown costs which decreased operating income by $10 million and $11 million, respectively. Current quarter EBITDA increased $354 million to $88 million while Adjusted EBITDA decreased $3 million to $88 million, of which $50 million was in Life Sciences and $38 million in Personal Care & Household. Adjusted EBITDA margin increased 0.8 percentage points in the current quarter to 27.3%.

Fiscal 2021 year-to-date compared to fiscal 2020 year-to-date

Consumer Specialties’ sales decreased $19 million to $617 million in the current period. Life Sciences represented an increase of $15 million, offset by a decrease of $34 million for Personal Care & Household. Favorable currency exchange increased sales by $14 million for the Consumer Specialties business. This increase was more than offset by product pricing and lower volume which decreased sales by $3 million and $30 million, respectively.

Operating income increased $365 million to income of $97 million for the current period. Life Sciences and Personal Care & Household recorded income of $64 million and $33 million, respectively. Favorable price/mix, favorable foreign currency exchange, lower costs, a prior year goodwill impairment and a legal settlement related to Personal Care & Household increased operating income by $6 million, $11 million, $12 million, $356 million and $2 million, respectively. These increases were partially offset by lower volume and storm related unplanned plant shutdown costs which decreased operating income by $11 million, each. Current period EBITDA increased $366 million to $166 million, and Adjusted EBITDA increased $9 million to $166 million of which $95 million was in Life Sciences and $71 million in Personal Care & Household. Adjusted EBITDA margin increased 2.2 percentage points in the current period to 26.9%.

EBITDA and Adjusted EBITDA reconciliation

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 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 Statements of Consolidated Comprehensive Income (Loss) caption.

The following EBITDA presentation for the three and six months ended March 31, 2021 and 2020 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 Consumer Specialties. The key items during the three and six months ended March 31, 2020 related to a goodwill impairment of $356 million for Personal Care & Household and $1 million in restructuring costs for Life Sciences.

	Life Sciences		Personal Care & Household		Consumer Specialties	
	Three months ended March 31					
(In millions)	2021	2020	2021	2020	2021	2020
Operating income	$ 35	$ 36	$ 19	$ (336)	$ 54	$ (300)
Depreciation and amortization	15	15	19	19	34	34
EBITDA	50	51	38	(317)	88	(266)
Restructuring and other costs	—	1	—	—	—	1
Goodwill impairment	—	—	—	356	—	356
Adjusted EBITDA	$ 50	$ 52	$ 38	$ 39	$ 88	$ 91

	Life Sciences		Personal Care & Household		Consumer Specialties	
	Six months ended March 31					
(In millions)	2021	2020	2021	2020	2021	2020
Operating income	$ 64	$ 58	$ 33	$ (326)	$ 97	$ (268)
Depreciation and amortization	31	30	38	38	69	68
EBITDA	95	88	71	(288)	166	(200)
Restructuring and other costs	—	1	—	—	—	1
Goodwill impairment	—	—	—	356	—	356
Adjusted EBITDA	$ 95	$ 89	$ 71	$ 68	$ 166	$ 157

Industrial Specialties

The Industrial Specialties business is comprised of the below reportable segments:

Specialty Additives

Specialty Additives is comprised of rheology- and performance-enhancing additives serving the coatings, construction, energy, automotive and various industrial markets. Solutions include coatings additives for architectural paints, finishes and lacquers, cement- and gypsum- based dry mortars, ready-mixed joint compounds, synthetic plasters for commercial and residential construction, and specialty materials for industrial applications. Products include rheology modifiers (cellulosic and associative thickeners), foam-control agents, surfactants and wetting agents, pH neutralizers, advanced ceramics used in catalytic converters, and environmental filters, ingredients that aid the manufacturing process of ceramic capacitors, plasma display panels and solar cells, ingredients for textile printing, thermoplastic metals and alloys for welding. Products help improve desired functional outcomes through rheology modification and control, water retention, workability, adhesive strength, binding power, film formation, deposition and suspension and emulsification. Customers include global paint manufacturers, electronics and automotive manufacturers, textile mills, the construction industry, and welders.

Performance Adhesives

Performance Adhesives is comprised of adhesives used in packaging, converting and structural applications. Packaging adhesives has an extensive line of pressure sensitive adhesives, functional coatings and primers combined with innovative technology solutions for narrow-, mid- and wide-web applications. Products meet stringent requirements in food and beverage safety, shipping, transportation, health and beauty, industrial, postage and security printing. Structural adhesives include light weighting vehicles and eliminating VOCs in buildings. Customers include converters of packaging materials, manufacturers of building materials and tier one suppliers to transportation industry.

March 2021 quarter compared to March 2020 quarter

Industrial Specialties’ sales increased $6 million to $246 million in the current quarter. Specialty Additives and Performance Adhesives each had an increase of $3 million. Higher volume and favorable currency exchange increased sales by $1 million and $7 million, respectively. These increases were partially offset by product pricing which decreased sales by $2 million.

Operating income increased $183 million to $38 million for the current quarter. Specialty Additives and Performance Adhesives each recorded income of $19 million, up $180 million and $3 million from the prior year quarter, respectively. Favorable price/mix, production costs and a prior year goodwill impairment increased operating income by $4 million, $5 million and $174 million, respectively. Current quarter EBITDA increased $183 million to $62 million. Adjusted EBITDA increased $9 million to $62 million, of which $40 million and $22 million originated from Specialty Additives and Performance Adhesives, respectively. Adjusted EBITDA margin increased 3.1 percentage points in the current quarter to 25.2%.

Fiscal 2021 year-to-date compared to fiscal 2020 year-to-date

Industrial Specialties’ sales increased $25 million to $478 million in the current period. Specialty Additives and Performance Adhesives represented $11 million and $14 million of the increase, respectively. Higher volume and favorable currency exchange increased sales by $17 million and $11 million, respectively. These increases were partially offset by product pricing which decreased sales by $3 million.

Operating income increased $185 million to $60 million for the current period. Specialty Additives and Performance Adhesives recorded income of $21 million and $39 million, respectively, up $173 million and $12 million from the prior year period, respectively. Higher volume, favorable price/mix, foreign currency exchange, production costs and a prior year goodwill impairment increased operating income by $3 million, $9 million, $1 million, $7 million and $174 million, respectively. Those improvements were partially offset by a capital project impairment of $9 million. Current period EBITDA increased $186 million to $108 million, $63 million income in Specialty Additives and $45 million income in Performance Adhesives. Adjusted EBITDA increased $21 million to $117 million, of which $72 million and $45 million originated from Specialty Additives and Performance Adhesives, respectively. Adjusted EBITDA margin increased 3.3 percentage points in the current period to 24.5%.

EBITDA and adjusted EBITDA reconciliation

The following EBITDA and Adjusted EBITDA presentation (as defined and described in the section above) for the three and six months ended March 31, 2021 and 2020 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 Industrial Specialties. Adjusted EBITDA results have been prepared to illustrate the ongoing effects of Ashland's operations, which exclude certain key items. The key items during the six months ended March 31, 2021 related to a capital project impairment within Specialty Additives. The key items during the three and six months ended March 31, 2020 related to a goodwill impairment for Specialty Additives.

	Specialty Additives		Performance Adhesives		Industrial Specialties	
	Three months ended March 31					
(In millions)	2021	2020	2021	2020	2021	2020
Operating income	$ 19	$ (161)	$ 19	$ 16	$ 38	$ (145)
Depreciation and amortization	21	20	3	4	24	24
EBITDA	40	(141)	22	20	62	(121)
Goodwill impairment	—	174	—	—	—	174
Adjusted EBITDA	$ 40	$ 33	$ 22	$ 20	$ 62	$ 53

	Specialty Additives		Performance Adhesives		Industrial Specialties	
	Six months ended March 31					
(In millions)	2021	2020	2021	2020	2021	2020
Operating income	$ 21	$ (152)	$ 39	$ 27	$ 60	$ (125)
Depreciation and amortization	42	40	6	7	48	47
EBITDA	63	(112)	45	34	108	(78)
Capital project impairment	9	—	—	—	9	—
Goodwill Impairment	—	174	—	—	—	174
Adjusted EBITDA	$ 72	$ 62	$ 45	$ 34	$ 117	$ 96

Intermediates and Solvents

Intermediates and Solvents is comprised of the production of 1,4 butanediol (BDO) and related derivatives, including 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 provided to Life Sciences, Personal Care, and Specialty Additives for use as a raw material.

March 2021 quarter compared to March 2020 quarter

Intermediates and Solvents' sales remained consistent compared to the prior year quarter.

Operating income/loss increased $5 million to $3 million for the current quarter. Lower production costs, inventory adjustments in the prior year quarter and improved price/mix increased operating income by $1 million, $4 million and $3 million, respectively. This increase was partially offset by lower volume which decreased operating income by $3 million. Current quarter EBITDA increased $6 million to $7 million while Adjusted EBITDA increased $2 million to $7 million. Adjusted EBITDA margin for the current quarter was 18.9%.

Fiscal 2021 year-to-date compared to fiscal 2020 year-to-date

Intermediates and Solvents' sales increased $5 million to $69 million in the current period primarily due to higher volume.

Operating income/loss increased $19 million to $5 million for the current period. Lower production costs and prior year inventory adjustments increased operating income by $18 million and $4 million, respectively. This increase was partially offset by unfavorable volume/mix which decreased operating income by $3 million. Current period EBITDA increased $19 million to $12 million, while Adjusted EBITDA increased $15 million to $12 million. EBITDA margin for the current period was 17.4%.

EBITDA and Adjusted EBITDA reconciliation

The following EBITDA presentation (as defined and described in the section above) for the three and six months ended March 31, 2021 and 2020 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. Key items for the three and six months ended March 31, 2020 included an inventory adjustment of $4 million.

	Three months ended March 31		Six months ended March 31	
(In millions)	2021	2020	2021	2020
Operating income	$ 3	$ (2)	$ 5	$ (14)
Depreciation and amortization	4	3	7	7
EBITDA	7	1	$ 12	$ (7)
Inventory adjustment	—	4	—	4
Adjusted EBITDA	$ 7	$ 5	$ 12	$ (3)

Unallocated and other

The following table summarizes the key components of the Unallocated and other segment's operating income (loss) for the three and six months ended March 31, 2021 and 2020.

	Three months ended March 31		Six months ended March 31	
(In millions)	2021	2020	2021	2020
Restructuring activities	$ (1)	$ (14)	$ (13)	$ (22)
Environmental expenses	(8)	(5)	(12)	(8)
Other expenses (primarily governance and legacy expenses)	(15)	(2)	(25)	(14)
Total expense	$ (24)	$ (21)	$ (50)	$ (44)

March 2021 quarter compared to March 2020 quarter

Unallocated and other recorded expense of $24 million and $21 million for the three months ended March 31, 2021 and 2020, respectively. The current and prior year quarters included charges for restructuring activities of $1 million and $14 million, respectively, which were comprised of severance, lease abandonment and other restructuring costs related to company-wide cost reduction programs during the current and prior year quarters, respectively.

The current quarter and prior year quarter included $8 million and $5 million for environmental expenses, respectively.

Other expenses increase of $13 million is primarily as a result of unfavorable foreign currency, higher stock compensation expense, lower China subsidies, and a liquidation gain in the prior year quarter.

Fiscal 2021 year-to-date compared to fiscal 2020 year-to-date

Unallocated and other recorded expense of $50 million and $44 million for the six months ended March 31, 2021 and 2020, respectively. The current and prior year periods included charges for restructuring activities of $13 million and $22 million, respectively, which were comprised of severance, lease abandonment and other restructuring costs related to company-wide cost reduction programs during the current and prior year periods.

The current and prior year periods included $12 million and $8 million for environmental expenses, respectively.

Other expenses increased $11 million primarily as a result of unfavorable foreign currency, higher stock compensation expense, lower China subsidies, and a liquidation gain in the prior year period.

FINANCIAL POSITION

Liquidity

Ashland had $373 million in cash and cash equivalents as of March 31, 2021, of which $306 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.

Ashland has taken actions and may continue to take actions intended to increase its cash position and preserve financial flexibility in light of current uncertainty in the global markets. On March 17, 2021, Ashland terminated its U.S. accounts receivable securitization facility and entered into an agreement with a group of entities to sell certain trade receivables, without recourse, of two U.S. based Ashland subsidiaries. Under the agreement, Ashland can transfer whole receivables up to a limit established by the buyer. As of March 31, 2021, Ashland has not sold any receivables under this agreement against the buyers' limit, which was at $107 million at March 31, 2021. See Note H for more information. In January 2020, Ashland renewed and extended its Revolving Credit Agreement through 2025 and issued new 2.00% senior notes in Europe for €500 million which mature in 2028. During the six months ended March 31, 2021, Ashland elected not to access funds on its Revolving Credit Facility. As of March 31, 2021, Ashland has total remaining borrowing capacity of $610 million, comprised of amounts remaining available under the Revolving Credit Facility and foreign Accounts Receivable Securitization Facility. Ashland also had an additional $107 million available under the U.S. Accounts Receivable Sales Program as of March 31, 2021 available for liquidation. Ashland has no significant maturities related to our term loans, revolving credit facilities or bonds until August 2022.

Ashland believes that cash flow from operations, availability under existing credit facilities and arrangements, current cash and investment balances and the ability to obtain other financing, if necessary, will provide adequate cash funds for Ashland's foreseeable working capital needs, capital expenditures at existing facilities, dividend payments and debt service obligations. Ashland's cash requirements are subject to change as business conditions warrant and opportunities arise. The timing and size of any new business ventures or acquisitions that the Company may complete may also impact its cash requirements. For information regarding the impact of COVID-19 on the Company, including on its liquidity and capital resources, please see item 1A, in Ashland's most recent Form 10-K filed with the SEC.

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 six months ended March 31, 2021 and 2020.

	Six months ended March 31	
(In millions)	2021	2020
Cash provided (used) by:		
Operating activities from continuing operations	$ 170	$ 13
Investing activities from continuing operations	(20)	(49)
Financing activities from continuing operations	(233)	234
Discontinued operations	(2)	(78)
Effect of currency exchange rate changes on cash and cash equivalents	4	1
Net increase (decrease) in cash and cash equivalents	$ (81)	$ 121

Operating activities

The following discloses the cash flows associated with Ashland's operating activities for the six months ended March 31, 2021 and 2020.

(In millions)	Six months ended March 31 2021	2020
Cash flows provided (used) by operating activities from continuing operations		
Net income (loss)	$ 97	$ (550)
Loss from discontinued operations (net of income taxes)	7	9
Adjustments to reconcile income from continuing operations to cash flows from operating activities:		
Depreciation and amortization	124	122
Original issue discount and debt issuance costs amortization	3	12
Deferred income taxes	(12)	(28)
Gain from sales of property and equipment	(3)	—
Distributions from equity affiliates	1	—
Stock based compensation expense	8	8
(Income) loss from restricted investments	(19)	16
Excess tax benefit on stock based compensation	1	1
Loss on early retirement of debt	—	59
Income on acquisitions and divestitures	(11)	—
Impairments	9	530
Pension contributions	(4)	(3)
Change in operating assets and liabilities (a)	(31)	(163)
Total cash flows provided by operating activities from continuing operations	$ 170	$ 13

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

Cash flows provided from operating activities from continuing operations amounted to inflows of $170 million and $13 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, 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 operating assets and liabilities accounted for outflows of $31 million compared to outflows of $163 million for the six months ended March 31, 2021 and 2020, respectively, and were primarily driven by the following net working capital accounts:

- Accounts receivable – There were cash inflows of $19 million and outflows of $19 million during the current and prior year periods, respectively.
- Inventory – There were cash inflows of $12 million and outflows of $15 million during the current and prior year periods, respectively.
- Trade and other payables – There were cash outflows of $37 million and $83 million during the current and prior year periods, respectively, and primarily related to the timing of certain payments and management of supplier/vendor payment terms.

The remaining changes to operating assets and liabilities resulted in outflows of $25 million and outflows of $46 million in the current and prior year periods, respectively, and were primarily due to income taxes paid or income tax refunds, interest paid, and adjustments to certain accruals and other long-term assets and liabilities.

Operating Activities – Summary

Operating cash flows for the current year period included income from continuing operations of $104 million. Additionally, the current period included non-cash adjustments of $124 million for depreciation and amortization, $8 million for stock-based compensation expense, $19 million income from restricted investments, $11 million net income on acquisitions and divestitures and $9 million for impairments.

Operating cash flows for the prior year period included a loss from continuing operations of $541 million. Additionally, the prior year period included non-cash adjustments of $530 million for a goodwill impairment charge, $122 million for depreciation and amortization, $59 million loss on early retirement of debt, $12 million original issue discounts and debt issuance cost amortization, $8 million for stock-based compensation expense and $16 million loss on restricted investments.

Investing activities

The following discloses the cash flows associated with Ashland's investing activities for the six months ended March 31, 2021 and 2020.

	Six months ended March 31	
(In millions)	2021	2020
Cash flows provided (used) by investing activities from continuing operations		
Additions to property, plant and equipment	$ (55)	$ (66)
Proceeds from disposal of property, plant and equipment	5	—
Proceeds from sale or restructuring of operations	14	—
Company-owned life insurance payments	(1)	—
Net purchase of funds restricted for specific transactions	(1)	(2)
Reimbursements from restricted investments	18	19
Proceeds from sale of securities	47	10
Purchases of securities	(47)	(10)
Total cash flows used by investing activities from continuing operations	$ (20)	$ (49)

Cash used by investing activities was $20 million and $49 million for the current and prior year periods, respectively. The significant cash investing activities for the current quarter primarily related to cash outflows of $55 million for property additions compared to $66 million in the prior year period. Additionally, there were reimbursements from the restricted renewable annual asbestos trust of $18 million during the current period compared to $19 million in the prior year period, proceeds from disposal of property, plant and equipment of $5 million in the current period and proceeds from sale or restructuring of operations of $14 million in the current period. The current and prior year period also included a rebalancing within the asbestos trust, which resulted in $47 million and $10 million of proceeds from the sale of securities offset by $47 million and $10 million of purchases of securities, respectively.

Financing activities

The following discloses the cash flows associated with Ashland's financing activities for the six months ended March 31, 2021 and 2020.

	Six months ended March 31	
(In millions)	2021	2020
Cash flows provided (used) by financing activities from continuing operations		
Proceeds from issuance of long-term debt	$ —	$ 804
Repayment of long-term debt	—	(767)
Premium on long-term debt repayment	—	(59)
Proceeds from (repayment of) short-term debt	(195)	306
Debt issuance costs	—	(11)
Cash dividends paid	(33)	(33)
Stock based compensation employee withholding taxes paid in cash	(5)	(6)
Total cash flows provided (used) by financing activities from continuing operations	$ (233)	$ 234

Cash flows used by financing activities resulted in an outflow of $233 million for the current period compared to an inflow of $234 million for the prior year period.

Significant cash financing activities for the current period included short-term debt repayments of $195 million, primarily related to the 2020 Revolving Credit Facility and accounts receivable securitization facilities. The current period included cash dividends paid of $0.550 per share, for a total of $33 million.

Significant cash financing activities for the prior year period included proceeds from issuance of long-term debt, repayment of long-term debt, premiums on retirement of long-term debt, and debt issuance costs paid of $804 million, $767 million, $59 million and $11 million, respectively, all related to debt refinancing activity. The prior year period also included short-term cash inflows of $306 million, primarily related to draws on the 2020 Revolving Credit Facility. The prior year period included cash dividends paid of $0.550 per share, for a total of $33 million.

The following discloses the cash flows associated with Ashland's discontinued operations for the six months ended March 31, 2021 and 2020.

	Six months ended March 31	
(In millions)	2021	2020
Cash provided (used) by discontinued operations		
Operating cash flows	$ 7	$ (79)
Investing cash flows	(9)	1
Total cash used by discontinued operations	$ (2)	$ (78)

Cash flows for discontinued operations in the current period primarily related to previously divested businesses, including net payments of asbestos and environmental liabilities, and a $30 million cash inflow for a tax refund associated with the Composites divestiture.

Cash flows for discontinued operations in the prior year period related to previously divested businesses, including net payments of asbestos, environmental liabilities and tax payments associated with the Composites divestiture, which was a $59 million cash outflow.

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.

	Six months ended March 31	
(In millions)	2021	2020
Total cash flows provided by operating activities from continuing operations	$ 170	$ 13
Adjustments:		
Additions to property, plant and equipment	(55)	(66)
Free cash flows (a)	$ 115	$ (53)

(a) Includes $29 million and $13 million of restructuring payments for the six months ended March 31, 2021 and 2020, respectively.

Working capital (current assets minus current liabilities, excluding long-term debt due within one year) amounted to $852 million and $734 million as of March 31, 2021 and September 30, 2020, respectively. Liquid assets (cash, cash equivalents and accounts receivable) amounted to 144% and 114% of current liabilities (excluding current liabilities held for sale) as of March 31, 2021 and September 30, 2020, respectively.

The following summary reflects Ashland’s cash, unused borrowing capacity and liquidity as of March 31, 2021 and September 30, 2020.

(In millions)	March 31 2021	September 30 2020
Cash and investment securities		
Cash and cash equivalents	$ 373	$ 454
Unused borrowing capacity and liquidity		
Revolving credit facility	$ 581	$ 500
2018 accounts receivable securitization (foreign)	29	—
2012 accounts receivable securitization (U.S.)	—	—
Accounts receivable sales program (U.S.)	$ 107	$ —

The borrowing capacity remaining under the $600 million revolving credit facility was $581 million due to a reduction of $19 million for letters of credit outstanding at March 31, 2021. In total, Ashland’s available liquidity position, which includes cash, the revolving credit facility and foreign accounts receivable securitization facility, was $983 million at March 31, 2021, compared to $954 million at September 30, 2020. Ashland also had an additional $107 million available under the U.S. accounts receivable sales program as of March 31, 2021 available for liquidation.

Capital resources

Debt

The following summary reflects Ashland’s debt as of March 31, 2021 and September 30, 2020.

(In millions)	March 31 2021	September 30 2020
Short-term debt (includes current portion of long-term debt)	$ 88	$ 280
Long-term debt (less current portion and debt issuance cost discounts) (a)	1,571	1,573
Total debt	$ 1,659	$ 1,853

(a) Includes $14 million and $15 million of debt issuance cost discounts as of March 31, 2021 and September 30, 2020, respectively.

Debt as a percent of capital employed was 35% and 38% at March 31, 2021 and at September 30, 2020, respectively. At March 31, 2021, Ashland’s total debt had an outstanding principal balance of $1,714 million, discounts of $41 million, and debt issuance costs of $14 million. The scheduled aggregate maturities of long-term debt by year (including the current portion and excluding debt issuance costs) are as follows: zero remaining in 2021, $421 million in 2022, $22 million in 2023, $44 million in 2024 and $175 million in 2025.

Ashland credit ratings

Ashland’s corporate credit ratings remained unchanged at BB+ by Standard & Poor’s and Ba1 by Moody’s Investor Services. As of March 31, 2021, Moody’s Investor Services outlook remained at stable, while Standard & Poor's outlook remained at negative. Subsequent changes to these ratings or outlook 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 2020 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 March 31, 2021, Ashland is in compliance with all debt agreement covenant restrictions under the 2020 Credit Agreement.

The maximum consolidated net leverage ratio permitted under the 2020 Credit Agreement is 4.0. The 2020 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 2020 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 above in the "consolidated review" section. 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. At March 31, 2021, Ashland's calculation of the consolidated net leverage ratio was 2.4.

The minimum required consolidated interest coverage ratio under the 2020 Credit Agreement is 3.0. The 2020 Credit Agreement defines the consolidated interest coverage ratio as the ratio of Covenant Adjusted EBITDA to consolidated interest charges for any measurement period. At March 31, 2021, Ashland's calculation of the consolidated interest coverage ratio was 8.1.

Any change in Covenant Adjusted EBITDA of $100 million would have an approximate 0.4x effect on the consolidated net leverage ratio and a 1.5x effect on the consolidated interest coverage ratio. The change in consolidated indebtedness of $100 million would affect the consolidated leverage ratio by approximately 0.2x.

Additional capital resources

Cash projection

Ashland believes that cash flow from operations, availability under existing credit facilities and arrangements, current cash and investment balances and the ability to obtain other financing, if necessary, will provide adequate cash funds for the Company's foreseeable working capital needs, capital expenditures at existing facilities, dividend payments and debt service obligations. The Company's cash requirements are subject to change as business conditions warrant and opportunities arise. The timing and size of any new business ventures or acquisitions that the Company may complete may also impact its cash requirements. For information regarding the impact of COVID-19 on the Company, including on its liquidity and capital resources, please see item 1A, in Ashland's most recent Form 10-K filed with the SEC.

Total equity

Total equity increased $78 million since September 30, 2020 to $3,114 million at March 31, 2021. The increase of $78 million was due to net income of $97 million, deferred translation gain of $14 million and $3 million of common shares issued under stock incentive plans, offset by $34 million of dividends and $2 million related to the adoption of new accounting guidance around the measurement of credit losses.

Stockholder dividends

In May 2019, the Board of Directors of Ashland announced a quarterly cash dividend of 27.5 cents per share to eligible stockholders at record. This dividend was paid in the first two quarters of fiscal 2021, each quarter of fiscal 2020 and the third and fourth quarters of fiscal 2019.

Capital expenditures

Capital expenditures were $55 million for the six months ended March 31, 2021 compared to $66 million for the six months ended March 31, 2020.

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, 2020. 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 six months ended March 31, 2021.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Ashland’s market risk exposure at March 31, 2021 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, 2020.

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 March 31, 2021.

Changes in Internal Control over Financial Reporting - During the six months ended March 31, 2021, 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. Ashland’s threshold for disclosing material environmental legal proceedings involving a governmental authority where potential monetary sanctions are involved is $1 million.

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 L 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 March 31, 2021, 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 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) 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 another chemical company to conduct and pay for the remedial design. This chemical company has sued Ashland, ISP and numerous other defendants to recover past and future costs pursuant to the CERCLA. Ashland, ISP and numerous other defendants have filed a Motion to Dismiss all of the claims. Ashland and ISP are participating in an USEPA allocation process. The release of the FFS Record of Decision, the current allocations proceedings and the lawsuit are not expected to be material to Ashland.

For additional information regarding environmental matters and reserves, see Note L 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 March 31, 2021. 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 March 31, 2021.

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, 2020.

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

There was no share repurchase activity during the three months ended March 31, 2021.

Issuer Purchases of Equity Securities

Q2 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 Be Purchased Under the Plans or Programs (in millions)(a)
January 1, 2021 to January 31, 2021	—	$ —	—	$ 800
February 1, 2021 to February 28, 2021	—	—	—	800
March 1, 2021 to March 31, 2021	—	—	—	800
Total	—		—	$ 800

(a) During March 2018, Ashland's Board of Directors approved a new $1 billion stock repurchase program, which replaced the previous stock repurchase program. Ashland'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 March 31, 2021, $800 million remains available for repurchase under this authorization.

ITEM 6. EXHIBITS

(a) Exhibits

2.1	Master Asset Purchase Agreement, dated January 18, 2021, entered into by and between Schülke & Mayr GmbH, ISP Marl Holdings GmbH, and Ashland Industries Europe GmbH (filed as Exhibit 2.1 to Ashland's Form 8-K filed on January 22, 2021 (SEC File No. 333-211719) and incorporated herein by reference).
10.1	Ashland Global Holdings Inc. 2021 Omnibus Incentive Compensation Plan (filed as Exhibit 10.1 to Ashland's Form 8-K filed on February 3, 2021 (SEC File No. 333-211719) and incorporated herein by reference).
10.2	Form of Stock-Settled Restricted Stock Unit Award Agreement under the Ashland Global Holdings Inc. 2021 Omnibus Incentive Compensation Plan (filed as Exhibit 10.2 to Ashland's Form 8-K filed on February 3, 2021 (SEC File No. 333-211719) and incorporated herein by reference).
10.3	Form of Restricted Share Award Agreement under the Ashland Global Holdings Inc. 2021 Omnibus Incentive Compensation Plan (filed as Exhibit 10.3 to Ashland's Form 8-K filed on February 3, 2021 (SEC File No. 333-211719) and incorporated herein by reference).
10.4	Form of Stock Appreciation Rights Award Agreement under the Ashland Global Holdings Inc. 2021 Omnibus Incentive Compensation Plan (filed as Exhibit 10.4 to Ashland's Form 8-K filed on February 3, 2021 (SEC File No. 333-211719) and incorporated herein by reference).
10.5	Form of Performance Unit Award Agreement under the Ashland Global Holdings Inc. 2021 Omnibus Incentive Compensation Plan (filed as Exhibit 10.5 to Ashland's Form 8-K filed on February 3, 2021 (SEC File No. 333-211719) and incorporated herein by reference).
10.6	Form of Cash-Settled Restricted Stock Unit Award Agreement under the Ashland Global Holdings Inc. 2021 Omnibus Incentive Compensation Plan (filed as Exhibit 10.6 to Ashland's Form 8-K filed on February 3, 2021 (SEC File No. 333-211719) and incorporated herein by reference).
10.7	Second Amended and Restated Purchase and Sale Agreement, dated March 17, 2021, by and among Ashland LLC and Ashland Specialty Ingredients G.P., as originators, Ashland LLC, as initial servicer, and CVG Capital III LLC, as purchaser (filed as Exhibit 10.1 to Ashland's Form 8-K filed on March 18, 2021 (SEC File No. 333-211719) and incorporated herein by reference).
10.8	Receivables Purchasing Agreement, dated March 17, 2021, by and among CVG Capital III LLC, PNC Bank, National Association, as administrative agent, PNC Bank Capital Markets LLC, as structuring agent, Ashland LLC, as initial servicer, and certain other persons from time to time party thereto (filed as Exhibit 10.2 to Ashland's Form 8-K filed on March 18, 2021 (SEC File No. 333-211719) and incorporated herein by reference).
31.1*	Certificate of Guillermo Novo, 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 Guillermo Novo, 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**	Inline XBRL Instance Document.
101.SCH**	Inline XBRL Taxonomy Extension Schema Document.

101.CAL**	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF**	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB**	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE**	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101).

* 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 six months ended March 31, 2021 and March 31, 2020; (ii) Condensed Consolidated Balance Sheets at March 31, 2021 and September 30, 2020; (iii) Statements of Consolidated Equity at March 31, 2021; (iv) Statements of Condensed Consolidated Cash Flows for the six months ended March 31, 2021 and March 31, 2020; 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)
April 29, 2021	/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 31.1

CERTIFICATIONS

I, Guillermo Novo, 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: April 29, 2021

/s/ Guillermo Novo
Guillermo Novo
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: April 29, 2021

/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 March 31, 2021, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), each of the undersigned, Guillermo Novo, 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/ Guillermo Novo
Guillermo Novo
Chief Executive Officer
April 29, 2021

/s/ J. Kevin Willis
J. Kevin Willis
Chief Financial Officer
April 29, 2021