UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

| (munic | One) | | | |
|--|---|--|--|---|
| \boxtimes | QUARTERLY REPORT PURSUANT TO SECTION 13 OI | R 15(d) OF THE SECURITIES | S EXCHANGE ACT OF 1934 | |
| | For the Quar | rterly Period Ended June 3 OR | 0, 2020 | |
| | TRANSITION REPORT PURSUANT TO SECTION 13 OF | R 15(d) OF THE SECURITIE | S EXCHANGE ACT OF 1934 | |
| | Comm | nission File Number 1-3610 | <u>r</u> | |
| | HOWMET | ΓAEROSPAC | EE INC. | |
| | | registrant as specified in it | | |
| | Delaware (State of incorporation) | | 25-0317820 (I.R.S. Employer Identification No.) | |
| 201 | l Isabella Street, Suite 200, Pittsburgh, Penn | ısylvania | 15212-5872 | |
| | (Address of principal executive offices) | | (Zip code) | |
| | Office of | of the Secretary 412-553-194 | | |
| Securiti | (Registrant's (Former name, former addr | stelephone number including area Arconic Inc. ress and former fiscal year, if chan | | |
| Securiti | (Registrant's | stelephone number including area Arconic Inc. ress and former fiscal year, if chan | ged since last report) | ed. |
| Securiti | (Registrant's (Former name, former addr ies registered pursuant to Section 12(b) of the Act: | s telephone number including area Arconic Inc. | | ed |
| Securiti | (Registrant's (Former name, former addr ies registered pursuant to Section 12(b) of the Act: Title of each class | Arconic Inc. Arss and former fiscal year, if chan | ged since last report) Name of each exchange on which registere | ed . |
| Indicate 12 mon | (Registrant's (Former name, former addr ies registered pursuant to Section 12(b) of the Act: Title of each class Common Stock, par value \$1.00 per share | Arconic Inc. ress and former fiscal year, if chan Trading Symbol(s) HWM HWM PR aired to be filed by Section 13 or | ged since last report) Name of each exchange on which registere New York Stock Exchange NYSE American 15(d) of the Securities Exchange Act of 1934 duri | ing the precedi |
| Indicate 12 mon days. Y Indicate | (Registrant's (Former name, former address registered pursuant to Section 12(b) of the Act: Title of each class Common Stock, par value \$1.00 per share \$3.75 Cumulative Preferred Stock, par value \$100 per share by check mark whether the registrant (1) has filed all reports requests (or for such shorter period that the registrant was required to file | Arconic Inc. Arconic Inc. ress and former fiscal year, if changes and former fiscal year, if changes are seen as a fixed by the section 13 or the such reports), and (2) has been a vevery Interactive Data File requirements. | Name of each exchange on which registere New York Stock Exchange NYSE American 15(d) of the Securities Exchange Act of 1934 during subject to such filing requirements for the past 90 duried to be submitted pursuant to Rule 405 of Regularity | ing the precedi |
| Indicate 12 mon days. Y Indicate (§232.4 Indicate | (Former name, former address registered pursuant to Section 12(b) of the Act: Title of each class Common Stock, par value \$1.00 per share \$3.75 Cumulative Preferred Stock, par value \$100 per share by check mark whether the registrant (1) has filed all reports requests (or for such shorter period that the registrant was required to file to be check mark whether the registrant has submitted electronically | Arconic Inc. Arconic Inc. ress and former fiscal year, if changes and former fiscal year, if changes are also as a fine of the file of t | Name of each exchange on which registere New York Stock Exchange NYSE American 15(d) of the Securities Exchange Act of 1934 durn subject to such filing requirements for the past 90 uired to be submitted pursuant to Rule 405 of Regular required to submit such files). Yes ∠ No rated filer, a smaller reporting company, or an emergence of the past 100 per part 1 | ing the precedi 0 ulation S-T erging growth |
| Indicate 12 mon days. Y Indicate (§232.4 Indicate compan Act. | (Registrant's (Former name, former addresses registered pursuant to Section 12(b) of the Act: Title of each class Common Stock, par value \$1.00 per share \$3.75 Cumulative Preferred Stock, par value \$100 per share by check mark whether the registrant (1) has filed all reports requests (or for such shorter period that the registrant was required to file to be compared to the c | Arconic Inc. Arconic Inc. ress and former fiscal year, if changes and former fiscal year, if changes are also as a fine of the file of t | Name of each exchange on which registere New York Stock Exchange NYSE American 15(d) of the Securities Exchange Act of 1934 durn subject to such filing requirements for the past 90 uired to be submitted pursuant to Rule 405 of Regular required to submit such files). Yes ∠ No rated filer, a smaller reporting company, or an emergence of the past 100 per part 1 | ing the precedi 0 ulation S-T erging growth |
| Indicate 12 mon days. Y Indicate (§232.4 Indicate compan Act. | (Former name, former address registered pursuant to Section 12(b) of the Act: Title of each class Common Stock, par value \$1.00 per share \$3.75 Cumulative Preferred Stock, par value \$100 per share by check mark whether the registrant (1) has filed all reports required to file the company of the compa | Arconic Inc. Arconic Inc. ress and former fiscal year, if changes and former fiscal year, if changes are also as a fine of the file of t | Name of each exchange on which registere New York Stock Exchange NYSE American 15(d) of the Securities Exchange Act of 1934 during subject to such filing requirements for the past 90 duried to be submitted pursuant to Rule 405 of Regulars required to submit such files). Yes No rated filer, a smaller reporting company, or an emerging growth company" in Rule 12b-2 or | ing the precedi) ulation S-T erging growth of the Exchange |
| Indicate 12 mon days. Y Indicate (§232.4 Indicate compan Act. | (Registrant's (Registrant's (Former name, former address registered pursuant to Section 12(b) of the Act: Title of each class Common Stock, par value \$1.00 per share \$3.75 Cumulative Preferred Stock, par value \$100 per share by check mark whether the registrant (1) has filed all reports required to file (res / No) by check mark whether the registrant has submitted electronically to 50 of this chapter) during the preceding 12 months (or for such share by check mark whether the registrant is a large accelerated filer, and ye. See the definitions of "large accelerated filer," "accelerated filer (accelerated filer) accelerated filer (accelerated filer). | Arconic Inc. Arconic Inc. ress and former fiscal year, if changes and former fiscal year, if changes are also as a fine of the file of t | Name of each exchange on which registered New York Stock Exchange NYSE American 15(d) of the Securities Exchange Act of 1934 during subject to such filing requirements for the past 90 duried to be submitted pursuant to Rule 405 of Regulars required to submit such files). Yes ✓ No rated filer, a smaller reporting company, or an emer's and "emerging growth company" in Rule 12b-2 of Accelerated filer | ing the precedi |
| Indicate 12 mondays. Y Indicate (§232.4 Indicate compan Act. Large a Non-act | (Registrant's (Registrant's (Former name, former address registered pursuant to Section 12(b) of the Act: Title of each class Common Stock, par value \$1.00 per share \$3.75 Cumulative Preferred Stock, par value \$100 per share by check mark whether the registrant (1) has filed all reports required to file (res / No) by check mark whether the registrant has submitted electronically to 50 of this chapter) during the preceding 12 months (or for such share by check mark whether the registrant is a large accelerated filer, and ye. See the definitions of "large accelerated filer," "accelerated filer (accelerated filer) accelerated filer (accelerated filer). | Arconic Inc. ress and former fiscal year, if changes and former fiscal year, if changes and former fiscal year, if changes are successed as a content of the such reports, and (2) has been a content of the registrant with the registrant with an accelerated filer, a non-acceler, "smaller reporting company," | Name of each exchange on which registere New York Stock Exchange NYSE American 15(d) of the Securities Exchange Act of 1934 during subject to such filing requirements for the past 90 duried to be submitted pursuant to Rule 405 of Regulars required to submit such files). Yes No rated filer, a smaller reporting company, or an emer' and "emerging growth company" in Rule 12b-2 of Accelerated filer Smaller reporting company Emerging growth company | ing the precedi ulation S-T erging growth of the Exchange |
| Indicate 12 mon days. Y Indicate (§232.4 Indicate compan Act. Large a Non-ac | (Former name, former address registered pursuant to Section 12(b) of the Act: Title of each class Common Stock, par value \$1.00 per share \$3.75 Cumulative Preferred Stock, par value \$100 per share by check mark whether the registrant (1) has filed all reports required to file so ✓ No by check mark whether the registrant has submitted electronically to 50 of this chapter) during the preceding 12 months (or for such share by check mark whether the registrant is a large accelerated filer, and you See the definitions of "large accelerated filer," "accelerated filer in the celerated filer of the celerated f | Arconic Inc. ress and former fiscal year, if changes are selected not to use the extended exchange Act | Name of each exchange on which registered New York Stock Exchange NYSE American 15(d) of the Securities Exchange Act of 1934 during subject to such filing requirements for the past 90 during to be submitted pursuant to Rule 405 of Regulars required to submit such files). Yes ✓ No rated filer, a smaller reporting company, or an emery and "emerging growth company" in Rule 12b-2 of Accelerated filer Smaller reporting company Emerging growth company Emerging growth company ed transition period for complying with any new or | ing the precedi ulation S-T erging growth of the Exchange |

Explanatory Note

On April 1, 2020, Arconic Inc. completed the separation of its business into two independent, publicly-traded companies: Howmet Aerospace Inc. (the new name for Arconic Inc.) and Arconic Corporation. The financial results of Arconic Corporation for all periods prior to April 1, 2020, have been retrospectively reflected in the Statement of Consolidated Operations as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods prior to April 1, 2020. Additionally, the related assets and liabilities associated with Arconic Corporation in the December 31, 2019 Consolidated Balance Sheet are classified as assets and liabilities of discontinued operations. The cash flows, comprehensive income, and equity related to Arconic Corporation have not been segregated and are included in the Statement of Consolidated Cash Flows, Statement of Consolidated Comprehensive Income (Loss), and Statement of Changes in Consolidated Equity, respectively, for all periods prior to April 1, 2020.

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements.

Howmet Aerospace Inc. and subsidiaries Statement of Consolidated Operations (unaudited) (U.S. dollars in millions, except per-share amounts)

| | | Second qu | arter | ended | Six mont | hs en | ded |
|---|----------|-----------|--------|--------|-------------|-------|--------|
| | | Jun | ıe 30, | | June | e 30, | |
| | | 2020 | | 2019 | 2020 | | 2019 |
| Sales (<u>D</u>) | \$ | 1,253 | \$ | 1,818 | \$ 2,887 | \$ | 3,570 |
| Cost of goods sold (exclusive of expenses below) | | 923 | | 1,335 | 2,106 | | 2,628 |
| Selling, general administrative, and other expenses | | 74 | | 102 | 153 | | 218 |
| Research and development expenses | | 4 | | 7 | 8 | | 16 |
| Provision for depreciation and amortization | | 73 | | 78 | 144 | | 154 |
| Restructuring and other charges (\underline{E}) | | 105 | | 472 | 144 | | 516 |
| Operating income (loss) | | 74 | | (176) | 332 | | 38 |
| Interest expense | | 144 | | 86 | 228 | | 171 |
| Other expense (income), net (\underline{F}) | | 16 | | 6 | (8) | | 18 |
| Income (loss) before income taxes | | (86) | | (268) | 112 | | (151) |
| Provision (benefit) for income taxes (<u>H</u>) | | (2) | | (132) | 43 | | (101) |
| Income (loss) from continuing operations after income taxes | \$ | (84) | \$ | (136) | \$ 69 | \$ | (50) |
| Income (loss) from discontinued operations after income taxes | \$ | (12) | \$ | 15 | \$ 50 | | 116 |
| Net income (loss) | \$ | (96) | \$ | (121) | \$ 119 | \$ | 66 |
| Amounts Attributable to Howmet Aerospace Common Shareholde | ers (H): | | | | | | |
| Net income (loss) | \$ | (96) | \$ | (121) | 118 | | 65 |
| Earnings (loss) per share - basic | | | | | | | |
| Continuing operations | \$ | (0.19) | \$ | (0.31) | \$ 0.16 | \$ | (0.11) |
| Discontinued operations | \$ | (0.03) | \$ | 0.03 | \$ 0.11 | \$ | 0.25 |
| Earnings (loss) per share - diluted | | | | | | | |
| Continuing operations | \$ | (0.19) | \$ | (0.31) | \$ 0.15 | \$ | (0.11) |
| Discontinued operations | \$ | (0.03) | \$ | 0.03 | \$ 0.11 | \$ | 0.25 |
| Average Shares Outstanding (I): | | | | | | | |
| Average shares outstanding - basic | | 436 | | 445 | 436 | | 458 |
| Average shares outstanding - diluted | | 436 | | 445 | 440 | | 462 |

Howmet Aerospace Inc. and subsidiaries Statement of Consolidated Comprehensive Income (Loss) (unaudited) (U.S. dollars in millions)

| | Second quarter ended June 30, | | | | Six mon Jun | ths en e 30, | |
|---|----------------------------------|------|----|-------|----------------|-----------------|------|
| | | 2020 | | 2019 | 2020 | | 2019 |
| Net income (loss) | \$ | (96) | \$ | (121) | \$ 119 | \$ | 66 |
| Other comprehensive income (loss), net of tax (J): | | | | | | | |
| Change in unrecognized net actuarial loss and prior service cost/benefit related to pension and other postretirement benefits | | 9 | | 23 | 46 | | 63 |
| Foreign currency translation adjustments | | (8) | | (30) | (73) | | (4) |
| Net change in unrealized gains (losses) on available-for-sale securities | | (1) | | _ | _ | | 3 |
| Net change in unrecognized gains (losses) on cash flow hedges | | 9 | | (10) | (4) | | (3) |
| Total Other comprehensive income (loss), net of tax | | 9 | | (17) | (31) | | 59 |
| Comprehensive income (loss) | \$ | (87) | \$ | (138) | \$ 88 | \$ | 125 |

Howmet Aerospace Inc. and subsidiaries Consolidated Balance Sheet (unaudited) (U.S. dollars in millions)

| | _ Ju | ne 30, 2020 | Decen | nber 31, 2019 |
|---|------|-------------|-------|---------------|
| Assets | | | | |
| Current assets: | | | | |
| Cash and cash equivalents | \$ | 1,281 | \$ | 1,577 |
| Receivables from customers, less allowances of \$1 in 2020 and \$1 in 2019 (K) | | 364 | | 583 |
| Other receivables (K) | | 163 | | 349 |
| Inventories (<u>L</u>) | | 1,673 | | 1,607 |
| Prepaid expenses and other current assets | | 221 | | 285 |
| Current assets of discontinued operations | | | | 1,442 |
| Total current assets | | 3,702 | | 5,843 |
| Properties, plants, and equipment, net $(\underline{\mathbf{M}})$ | | 2,558 | | 2,629 |
| Goodwill ($\underline{\mathbb{D}}$) | | 4,051 | | 4,067 |
| Deferred income taxes | | 194 | | 225 |
| Intangibles, net | | 589 | | 599 |
| Other noncurrent assets (N) | | 269 | | 316 |
| Noncurrent assets of discontinued operations | | _ | | 3,899 |
| Total assets | \$ | 11,363 | \$ | 17,578 |
| Liabilities | | | | |
| Current liabilities: | | | | |
| Accounts payable, trade | \$ | 632 | \$ | 976 |
| Accrued compensation and retirement costs | | 201 | | 285 |
| Taxes, including income taxes | | 66 | | 65 |
| Accrued interest payable | | 91 | | 112 |
| Other current liabilities (N) | | 277 | | 229 |
| Short-term debt (Q) | | 391 | | 1,034 |
| Current liabilities of discontinued operations | | _ | | 1,424 |
| Total current liabilities | | 1,658 | | 4,125 |
| Long-term debt, less amount due within one year (\underline{O} and \underline{P}) | | 4,695 | | 4,906 |
| Accrued pension benefits (G) | | 1,006 | | 1,030 |
| Accrued other postretirement benefits (G) | | 190 | | 200 |
| Other noncurrent liabilities and deferred credits (N) | | 365 | | 438 |
| Noncurrent liabilities of discontinued operations | | _ | | 2,258 |
| Total liabilities | | 7,914 | | 12,957 |
| Contingencies and commitments (R) | | | | |
| Equity | | | | |
| Howmet Aerospace shareholders' equity: | | | | |
| Preferred stock | | 55 | | 55 |
| Common stock | | 436 | | 433 |
| Additional capital | | 4,703 | | 7,319 |
| Retained earnings | | 223 | | 129 |
| Accumulated other comprehensive loss (<u>J</u>) | | (1,968) | | (3,329) |
| Total Howmet Aerospace shareholders' equity | | 3,449 | | 4,607 |
| Noncontrolling interests | | _ | | 14 |
| Total equity | | 3,449 | | 4,621 |
| Total liabilities and equity | \$ | 11,363 | \$ | 17,578 |

Howmet Aerospace Inc. and subsidiaries Statement of Consolidated Cash Flows (unaudited) (U.S. dollars in millions)

Six months ended June 30,

| | Ju | ne 30, |
|---|----------|----------|
| | 2020 | 2019 |
| Operating activities | | |
| Net income | \$ 119 | \$ 66 |
| Adjustments to reconcile net income to cash used for operations: | | |
| Depreciation and amortization | 203 | 276 |
| Deferred income taxes | 25 | (78) |
| Restructuring and other charges | 126 | 511 |
| Net loss from investing activities—asset sales | 4 | 4 |
| Net periodic pension benefit cost (G) | 34 | 58 |
| Stock-based compensation | 23 | 27 |
| Other | 48 | 14 |
| Changes in assets and liabilities, excluding effects of acquisitions, divestitures, and foreign currency translation adjustments: | | |
| (Increase) in receivables | (70) | (743) |
| (Increase) in inventories | (136) | (117) |
| (Increase) decrease in prepaid expenses and other current assets | (11) | 18 |
| (Decrease) in accounts payable, trade | (403) | (29) |
| (Decrease) in accrued expenses | (173) | (46) |
| Increase in taxes, including income taxes | 96 | 41 |
| Pension contributions | (102) | (140) |
| (Increase) in noncurrent assets | (6) | (5) |
| (Decrease) in noncurrent liabilities | (37) | (9) |
| Cash used for operations | (260) | (152) |
| Financing Activities | | |
| Net change in short-term borrowings (original maturities of three months or less) | (2) | _ |
| Additions to debt (original maturities greater than three months) (\underline{B})(\underline{O}) | 2,400 | 226 |
| Debt issuance costs (B)(Q) | (61) | _ |
| Payments on debt (original maturities greater than three months) (Q) | (2,041) | (226) |
| Premiums paid on early redemption of debt (①) | (59) | _ |
| Proceeds from exercise of employee stock options | 30 | 11 |
| Dividends paid to shareholders | (10) | (39) |
| Repurchase of common stock | _ | (900) |
| Net cash transferred to Arconic Corporation at separation (<u>B</u>) | (500) | _ |
| Other | (34) | (14) |
| Cash used for financing activities | (277) | (942) |
| Investing Activities | <u></u> | <u> </u> |
| Capital expenditures | (101) | (304) |
| Proceeds from the sale of assets and businesses (B) | 114 | 12 |
| Sale of debt securities | _ | 47 |
| Cash receipts from sold receivables (\underline{K}) | 114 | 417 |
| Other | _ | (1) |
| Cash provided from investing activities | 127 | 171 |
| Effect of exchange rate changes on cash, cash equivalents and restricted cash | (8) | 1 |
| Net change in cash, cash equivalents and restricted cash | (418) | (922) |
| Cash, cash equivalents and restricted cash at beginning of period | 1,703 | 2,282 |
| Cash, cash equivalents and restricted cash at end of period | \$ 1,285 | \$ 1,360 |

Howmet Aerospace Inc. and subsidiaries Statement of Changes in Consolidated Equity (unaudited) (U.S. dollars in millions, except per-share amounts)

Howmet Aerospace Shareholders

| | | | | | | | | | | Accumulated other | | | |
|---|--------------------|----|-------------------|------|--------------------|-------|---------------------|-------|-----------------------|-------------------|-----------------------------|----|-----------------|
| | Preferred stock | | d Common stock | | Additional capital | | Accumulated deficit | | comprehensive loss | | Noncontrolling Interests | | Total Equity |
| Balance at March 31, 2019 | \$ | 55 | \$ | 453 | \$ | 7,644 | \$ | (134) | \$ | (2,852) | \$ | 12 | \$ 5,178 |
| Net loss | | _ | | _ | | _ | | (121) | | _ | | _ | (121) |
| Other comprehensive loss (<u>J</u>) | | _ | | _ | | _ | | _ | | (17) | | _ | (17) |
| Repurchase and retirement of common stock | 1 | _ | | (13) | | (187) | | _ | | _ | | _ | (200) |
| Stock-based compensation | | _ | | _ | | 17 | | _ | | _ | | _ | 17 |
| Common stock issued: compensation plans | | _ | | _ | | 10 | | _ | | _ | | _ | 10 |
| Other | | _ | | _ | | _ | | (1) | | _ | | _ | (1) |
| Balance at June 30, 2019 | \$ | 55 | \$ | 440 | \$ | 7,484 | \$ | (256) | \$ | (2,869) | \$ | 12 | \$ 4,866 |

Howmet Aerospace Shareholders

| | eferred stock | ommon stock | A | Additional capital | Reta | ained earnings | occumulated other mprehensive loss | Noncontrolling interests | | | Total Equity |
|--|----------------------|----------------|----|-----------------------|------|----------------|---|-----------------------------|------|----|-----------------|
| Balance at March 31, 2020 | \$ 55 | \$ 436 | \$ | 7,326 | \$ | 335 | \$ (3,369) | | \$14 | \$ | 4,797 |
| Net loss | _ | _ | | _ | | (96) | _ | | _ | | (96) |
| Other comprehensive income (\underline{J}) | _ | _ | | _ | | _ | 9 | | _ | | 9 |
| Stock-based compensation | _ | _ | | 10 | | _ | _ | | _ | | 10 |
| Distributions to Arconic Corp (B) | _ | _ | | (2,633) | | _ | 1,392 | | (14) | | (1,255) |
| Other (<u>H</u>) | _ | _ | | _ | | (16) | _ | | _ | | (16) |
| Balance at June 30, 2020 | \$ 55 | \$ 436 | \$ | 4,703 | \$ | 223 | \$ (1,968) | \$ | _ | \$ | 3,449 |

Howmet Aerospace Inc. and subsidiaries Statement of Changes in Consolidated Equity (unaudited) (U.S. dollars in millions, except per-share amounts)

| Howmet Aerospace Shareholders | | | | | | | | | | | | | | | |
|---|----|--------------|----|------------------------------------|----|-------|--|-------|----|---------|----|---------------------------|-----------------|-------|--|
| | | erred ock | | Common Additional stock capital | | | Accumulated other Accumulated comprehensive deficit loss | | | | | ncontrolling interests | Total Equity | | |
| Balance at December 31, 2018 | \$ | 55 | \$ | 483 | \$ | 8,319 | \$ | (358) | \$ | (2,926) | \$ | 12 | \$ | 5,585 | |
| Adoption of accounting standards (1) | | _ | | _ | | _ | | 75 | | (2) | | _ | | 73 | |
| Net income | | _ | | _ | | _ | | 66 | | _ | | _ | | 66 | |
| Other comprehensive income (<u>J</u>) | | _ | | _ | | _ | | _ | | 59 | | _ | | 59 | |
| Cash dividends declared: | | | | | | | | | | | | | | | |
| Preferred-Class A @ \$1.875 per share | | _ | | _ | | _ | | (1) | | _ | | _ | | (1) | |
| Common @ \$0.08 per share | | _ | | _ | | _ | | (38) | | _ | | _ | | (38) | |
| Repurchase and retirement of common stock | | _ | | (45) | | (855) | | _ | | _ | | _ | | (900) | |
| Stock-based compensation | | _ | | _ | | 25 | | _ | | _ | | _ | | 25 | |
| Common stock issued: compensation plans | | _ | | 2 | | (5) | | _ | | _ | | _ | | (3) | |
| Balance at June 30, 2019 | \$ | 55 | \$ | 440 | \$ | 7,484 | \$ | (256) | \$ | (2,869) | \$ | 12 | \$ | 4,866 | |

| | | Howmet Aerospace Shareholders | | | | | | | | | | | |
|---|--------------------|-------------------------------|-----------------|--|----|-----------------------|----|----------------------|----|---|-----------------------------|------|-----------------|
| | Preferred stock | | Common stock | | | Additional capital | | Retained earnings | | occumulated other mprehensive loss | Noncontrolling interests | | Total Equity |
| Balance at December 31, 2019 | \$ 55 | : | \$ 433 | | \$ | 7,319 | \$ | 129 | \$ | (3,329) | \$ | 14 | \$ 4,621 |
| Net income | _ | | _ | | | _ | | 119 | | _ | | _ | 119 |
| Other comprehensive income (<u>J</u>) | _ | | _ | | | _ | | _ | | (31) | | _ | (31) |
| Cash dividends declared: | | | | | | | | | | | | | |
| Preferred-Class A @ \$1.875 per share | _ | | _ | | | _ | | (1) | | _ | | _ | (1) |
| Common @ \$0.02 per share | _ | | _ | | | _ | | (8) | | _ | | _ | (8) |
| Stock-based compensation | _ | | _ | | | 23 | | _ | | _ | | _ | 23 |
| Common stock issued: compensation plans | _ | | 3 | | | (6) | | _ | | _ | | _ | (3) |
| Distributions to Arconic Corp (B) | _ | | _ | | | (2,633) | | _ | | 1,392 | | (14) | (1,255) |
| Other (<u>H</u>) | _ | | _ | | | _ | | (16) | | _ | | _ | (16) |
| Balance at June 30, 2020 | \$ 55 | - : | \$ 436 | | \$ | 4,703 | \$ | 223 | \$ | (1,968) | \$ | _ | \$ 3,449 |

⁽¹⁾ The Company entered into a sale leaseback arrangement in October 2018 for a cast house that is now part of Arconic Corporation, and due to continuing involvement, the gain on sale was deferred. In connection with the adoption of the new lease accounting standard on January 1, 2019, the arrangement no longer required that the gain be deferred. As such, the associated \$73 deferred gain, net of tax was recognized as a cumulative effect of an accounting change within Accumulated deficit. Also, the Company adopted the new hedge accounting guidance on January 1, 2019. As a result, an adjustment of \$2 was recognized as a cumulative effect of an accounting change within Accumulated deficit with an offset to Accumulated other comprehensive loss related to the elimination of a separate measurement of ineffectiveness for its cash flow hedges.

Howmet Aerospace Inc. and subsidiaries Notes to the Consolidated Financial Statements (unaudited) (U.S. dollars in millions, except per-share amounts)

A. Basis of Presentation

The interim Consolidated Financial Statements of Howmet Aerospace Inc. (formerly known as Arconic Inc.) and its subsidiaries ("Howmet" or the "Company") are unaudited. These Consolidated Financial Statements include all adjustments, consisting only of normal recurring adjustments, considered necessary by management to fairly state the Company's results of operations, financial position, and cash flows. The results reported in these Consolidated Financial Statements are not necessarily indicative of the results that may be expected for the entire year. The 2019 year-end balance sheet data was derived from audited financial statements but does not include all disclosures required by accounting principles generally accepted in the United States of America ("GAAP"). This Form 10-Q report should be read in conjunction with the Company's Annual Report on Form 10-K for the year ended December 31, 2019, which includes all disclosures required by GAAP. Certain amounts in previously issued financial statements were reclassified to conform to the current period presentation (see Note D).

The separation of Arconic Inc. into two standalone, publicly-traded companies, Howmet Aerospace Inc. and Arconic Corporation, (the "Arconic Inc. Separation Transaction") became effective on April 1, 2020 (see Note B). The financial results of Arconic Corporation for all periods prior to the Arconic Inc. Separation Transaction have been retrospectively reflected in the Statement of Consolidated Operations as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented. In addition, the related assets and liabilities associated with Arconic Corporation in the December 2019 Consolidated Balance Sheet are classified as assets and liabilities of discontinued operations. The cash flows, comprehensive income, and equity related to Arconic Corporation have not been segregated and are included in the Statement of Consolidated Cash Flows, Statement of Consolidated Comprehensive Income (Loss), and Statement of Changes in Consolidated Equity, respectively, for all periods prior to the Arconic Inc. Separation Transaction and discontinued operations.

The Company derives approximately 70% of its revenue from products sold to the aerospace end-market. As a result of the global pandemic coronavirus ("COVID-19") and its impact on the aerospace industry to-date, the possibility exists that there could be a sustained impact to our operations and financial results. Since the start of the pandemic, certain original equipment manufacturer ("OEM") customers have reduced production or suspended manufacturing operations in North America and Europe on a temporary basis. While the pandemic has resulted in the temporary closure of a small number of the Company's manufacturing facilities, all of our manufacturing facilities are currently operating. Since the duration of the pandemic is uncertain, the Company is taking a series of actions to address the financial impact, including announcing certain headcount reductions and reducing certain cash outflows by suspending dividends on common stock and reducing the level of its capital expenditures to preserve cash and maintain liquidity.

The preparation of the Consolidated Financial Statements of the Company in conformity with GAAP requires management to make certain judgments, estimates, and assumptions. These estimates are based on historical experience and, in some cases, assumptions based on current and future market experience, including considerations relating to the impact of COVID-19. The impact of COVID-19 is rapidly changing and of unknown duration and macroeconomic impact and as a result, these considerations remain highly uncertain. We have made our best estimates using all relevant information available at the time, but it is possible that our estimates will differ from our actual results and affect the Consolidated Financial Statements in future periods and potentially require adverse adjustments to the recoverability of goodwill, intangible and long-lived assets, the realizability of deferred tax assets and other judgements and estimations and assumptions that may be impacted by COVID-19.

B. Arconic Inc. Separation Transaction and Discontinued Operations

On April 1, 2020, the Company completed the previously announced separation of its business into two independent, publicly-traded companies. Following the Arconic Inc. Separation Transaction, Arconic Corporation holds the Global Rolled Products businesses (global rolled products, aluminum extrusions, and building and construction systems) previously held by the Company. The Company retained the Engineered Products and Forgings businesses (engine products, fastening systems, engineered structures, and forged wheels).

The Company's Board of Directors approved the completion of the separation on February 5, 2020, which was effected by the distribution (the "Distribution") by the Company of all of the outstanding common stock of Arconic Corporation on April 1, 2020 to the Company's stockholders who held shares as of the close of business on March 19, 2020 (the "Record Date"). In the Distribution, each Company stockholder of record as of the Record Date received one share of Arconic Corporation common stock for every four shares of the Company's common stock held as of the Record Date. The Company did not issue fractional shares of Arconic Corporation common stock in the Distribution. Instead, each stockholder otherwise entitled to a fractional share of Arconic Corporation common stock received cash in lieu of fractional shares.

On March 31, 2020, in connection with the Arconic Inc. Separation Transaction, the Company entered into several agreements with Arconic Corporation that govern the relationship between the Company and Arconic Corporation following the Distribution, including the following: a Separation and Distribution Agreement, Tax Matters Agreement, Employee Matters Agreement, Transition Services Agreement and certain Patent, Know-How, Trade Secret License and Trademark License Agreements.

On February 7, 2020 Arconic Corporation completed an offering of \$600 aggregate principal amount of 6.125% senior secured second-lien notes due 2028. On March 25, 2020. Arconic Corporation entered into a credit agreement which provided for a \$600 aggregate principal amount seven-year senior secured first-lien loan B facility and a revolving credit facility which is guaranteed by certain of Arconic Corporation's wholly-owned domestic subsidiaries and secured on a first-priority basis by liens on substantially all assets of Arconic Corporation and subsidiary guarantors. Arconic Corporation used the proceeds to make payment to the Company to fund the transfer of certain assets to Arconic Corporation relating to the Arconic Inc. Separation Transaction and for general corporate purposes. The Company incurred debt issuance costs of \$45 associated with these issuances for the first quarter of 2020 and six months ended June 30, 2020.

On February 1, 2020, Arconic Corp completed the sale of its rolling million in Itapissuma, Brazil for \$50 in cash which resulted in a loss of \$59, of which \$53 was recognized in discontinued operations in the second half of 2019 and \$6 in the first quarter of 2020 and six months ended June 30, 2020. On March 1, 2020, Arconic Corporation sold its hard alloy extrusions plant in South Korea for \$62 in cash, which resulted in a gain that was recognized in discontinued operations in the first quarter of 2020 and six months ended June 30, 2020.

Discontinued Operations

The results of operations of Arconic Corporation are presented as discontinued operations in the Statement of Consolidated Operations as summarized below:

| | | Second qua | arter e | nded | | Six months ended | | | | |
|--|----------|------------|---------|-------|----|------------------|----|-------|--|--|
| | June 30, | | | | | June 30, | | | | |
| | | 2020 | | 2019 | | 2020 | | 2019 | | |
| Sales | \$ | | \$ | 1,874 | \$ | 1,576 | \$ | 3,662 | | |
| Cost of goods sold | | _ | | 1,603 | | 1,292 | | 3,129 | | |
| Selling, general administrative, research and development and other expenses | | 4 | | 85 | | 106 | | 160 | | |
| Provision for depreciation and amortization | | _ | | 61 | | 59 | | 122 | | |
| Restructuring and other charges | | _ | | 27 | | (18) | | (5) | | |
| Interest expense | | _ | | _ | | 7 | | _ | | |
| Other expense, net | | _ | | 24 | | 42 | | 43 | | |
| Income (loss) from discontinued operations | | (4) | | 74 | | 88 | | 213 | | |
| Provision for income taxes | | 8 | | 59 | | 38 | | 97 | | |
| Income (loss) from discontinued operations after income taxes | \$ | (12) | \$ | 15 | \$ | 50 | \$ | 116 | | |

The following table presents purchases of property, plant and equipment of the discontinued operations related to Arconic Corporation:

| | Second | quarte | r ended | Six months ended | | | | | | |
|---|---------|---------|---------|------------------|----|------|-----|--|--|--|
| | | June 30 | , | June 30, | | | | | | |
| | 2020 | | 2019 | 2020 | | 2019 | | | | |
| Capital Expenditures | \$ _ | \$ | 35 | \$ 25 | \$ | | 81 | | | |
| Proceeds from the sales of businesses | \$ _ | \$ | _ | \$ 112 | \$ | | _ | | | |
| Provision for depreciation and amortization | \$ _ | \$ | 61 | \$ 59 | \$ | 1 | 122 | | | |

On April 1, 2020, management evaluated the net assets of Arconic Corporation for potential impairment and determined that no impairment charge was required.

The cash flows and equity related to Arconic Corporation have not been segregated and are included in the Statement of Consolidated Cash Flows or Statement of Comprehensive Income for all periods presented.

The carrying amount of the major classes of assets and liabilities related to Arconic Corporation classified as assets and liabilities of discontinued operations in the Consolidated Balance Sheet consisted of the following:

| | Deceml | ber 31, 2019 |
|---|--------|--------------|
| Total Assets of Discontinued Operations | | |
| Cash and cash equivalents | \$ | 71 |
| Receivables from customers | | 385 |
| Other receivables | | 135 |
| Inventories | | 822 |
| Prepaid expenses and other current assets | | 29 |
| Current assets of discontinued operations | | 1,442 |
| Properties, plants, and equipment, net | | 2,834 |
| Goodwill | | 426 |
| Intangibles, net | | 60 |
| Deferred income taxes | | 383 |
| Other noncurrent assets | | 196 |
| Noncurrent assets of discontinued operations | | 3,899 |
| Total assets of discontinued operations | \$ | 5,341 |
| Total Liabilities of Discontinued Operations: | | |
| Accounts payable, trade | \$ | 1,067 |
| Accrued compensation and retirement costs | | 147 |
| Taxes, including income taxes | | 22 |
| Other current liabilities | | 188 |
| Current liabilities of discontinued operations | | 1,424 |
| Accrued pension benefits | | 1,430 |
| Accrued other postretirement benefits | | 514 |
| Other noncurrent liabilities and deferred credits | | 314 |
| Noncurrent liabilities of discontinued operations | | 2,258 |
| Total liabilities of discontinued operations | \$ | 3,682 |
| | | |

C. Recently Adopted and Recently Issued Accounting Guidance

Adopted

On January 1, 2020, the Company adopted changes issued by the Financial Accounting Standards Board ("FASB") related to the impairment model for expected credit losses. The new impairment model (known as the current expected credit loss ("CECL") model) is based on expected losses rather than incurred losses. The Company recognizes as an allowance its estimate of expected credit losses. The CECL model applies to most debt instruments, trade receivables, lease receivables, financial guarantee contracts, and other loan commitments and requires the measurement of expected credit losses on assets including those that have a low risk of loss. The adoption of this new guidance did not have a material impact on the Consolidated Financial Statements.

Issued

In August 2018, the FASB issued guidance that impacts disclosures for defined benefit pension plans and other postretirement benefit plans. These changes become effective for the Company's 2020 annual report. Management has determined that the adoption of this guidance will not have a material impact on the Consolidated Financial Statements and plans to adopt for the 2020 annual report.

In December 2019, the FASB issued guidance that is intended to simplify various aspects related to the accounting for income taxes. These changes become effective on January 1, 2021, with early adoption permitted. Management is currently evaluating the potential impact of these changes on the Consolidated Financial Statements and plans to adopt on January 1, 2021.

In March 2020, the FASB issued amendments that provide optional expedients and exceptions for applying GAAP to contracts, hedging relationships, and other transactions affected by reference rate reform, if certain criteria are met. The amendments apply only to contracts and hedging relationships that reference LIBOR or another reference rate expected to be discontinued due to reference rate reform. These amendments are effective immediately and may be applied prospectively to contract modifications made and hedging relationships entered into or evaluated on or before December 31, 2022. Management is currently evaluating the potential impact of these changes on the Consolidated Financial Statements.

D. Segment Information

Following the Arconic Inc. Separation Transaction, Howmet's operations consist of four worldwide reportable segments as follows:

Engine Products

Engine Products produces investment castings and seamless rolled rings primarily for aircraft engines and industrial gas turbines. Engine Products produces rotating parts as well as structural parts.

Fastening Systems

Fastening Systems produces aerospace fastening systems, as well as commercial transportation fasteners. The business's high-tech, multi-material fastening systems are found nose to tail on aircraft and aero engines. The business's products are also critical components of industrial gas turbines, automobiles, commercial transportation vehicles, and construction and industrial equipment.

Engineered Structures

Engineered Structures produces titanium and aluminum ingots and mill products for aerospace and defense applications and is vertically integrated to produce titanium forgings, extrusions formings and machining services for airframe, wing, aero-engine, and landing gear components. Engineered Structures also produces aluminum forgings, nickel forgings, and aluminum machined components and assemblies for aerospace and defense applications.

Forged Wheels

Forged Wheels provides forged aluminum wheels and related products for heavy-duty trucks and the commercial transportation markets.

Goodwill

The Company had \$4,051 of Goodwill at June 30, 2020, and the Company reviews it for impairment annually in the fourth quarter or more frequently if indicators exist or if a decision is made to sell or realign a business.

On January 1, 2020, management transferred the Savannah business from Engine Products to Engineered Structures segment, based on synergies with forgings technologies and manufacturing capabilities. As a result of the reorganization, goodwill of \$17 was reallocated from Engine Products to Engineered Structures, and these reporting units were evaluated for impairment during the first quarter of 2020. The estimated fair value of each of these reporting units substantially exceeded their carrying value; thus, there was no goodwill impairment at the date the business was transferred.

During the first quarter of 2020, Howmet's market capitalization declined significantly compared to the fourth quarter of 2019. Over the same period, the equity value of our peer group companies, and the overall U.S. stock market also declined significantly amid market volatility. In addition, as a result of the COVID-19 pandemic and measures designed to contain the spread, sales globally to customers in the aerospace and commercial transportation industries that are impacted by COVID-19 have been and are expected to be negatively impacted as a result of disruption in demand. As a result of these macroeconomic factors, we performed a qualitative impairment test to evaluate whether it is more likely than not that the fair value of any of our reporting units is less than its carrying value.

As a result of this assessment, the Company performed a quantitative impairment test in the first quarter for the Engineered Structures reporting unit and concluded that though the margin between the fair value of the reporting unit and carrying value had declined from approximately 60% to approximately 15%, it was not impaired. Consistent with prior practice, a discounted cash flow model was used to estimate the current fair value of the reporting unit. The significant assumptions and estimates utilized to determine fair value were developed utilizing current market and forecast information reflecting the disruption in demand that has and is expected to negatively impact the Company's sales globally in the aerospace industry. In the second quarter of 2020, there were no indicators of impairment identified for the Engineered Structures reporting unit as the margin between fair value of the reporting unit and carrying value exceeded 20%. If our actual results or external market factors decline significantly from management's estimates, future goodwill impairment charges may be necessary and could be material.

The operating results of the Company's reportable segments were as follows:

| | | Engine Products | | astening Systems | | gineered ructures | | Forged Wheels | | Total Segment |
|--|----------------|---|----------------------|--|-------------------|--|-------|---|-------|---|
| Second quarter ended June 30, 2020 | | | | | . , | | | | | - |
| Sales: | | | | | | | | | | |
| Third-party sales | \$ | 585 | \$ | 326 | \$ | 229 | \$ | 113 | \$ | 1,253 |
| Inter-segment sales | | 1 | | _ | | 2 | | _ | | 3 |
| Total sales | \$ | 586 | \$ | 326 | \$ | 231 | \$ | 113 | \$ | 1,256 |
| Profit and loss: | | | | | | | | | | |
| Segment operating profit | \$ | 105 | \$ | 70 | \$ | 19 | \$ | 6 | \$ | 200 |
| Restructuring and other charges (credits) | | 22 | | 24 | | (5) | | 1 | | 42 |
| Provision for depreciation and amortization | | 31 | | 12 | | 14 | | 9 | | 66 |
| Capital expenditures | | 14 | | 7 | | 5 | | 4 | | 30 |
| Second quarter ended June 30, 2019 | | | | | | | | | | |
| Sales: | | | | | | | | | | |
| Third-party sales | \$ | 835 | \$ | 399 | \$ | 331 | \$ | 257 | \$ | 1,822 |
| Inter-segment sales | | 3 | | | | 3 | | | | 6 |
| Total sales | \$ | 838 | \$ | 399 | \$ | 334 | \$ | 257 | \$ | 1,828 |
| Profit and loss: | | | | | | | | | | |
| Segment operating profit | \$ | 163 | \$ | 99 | \$ | 25 | \$ | 73 | \$ | 360 |
| Restructuring and other charges | | 250 | | 1 | | 193 | | 1 | | 445 |
| Provision for depreciation and amortization | | 35 | | 12 | | 14 | | 8 | | 69 |
| Capital expenditures | | 55 | | 8 | | 7 | | 20 | | 90 |
| | | Engine | F | astening | En | gineered | | Forged | | Total |
| | | roducts | | Systems | | ructures | | Wheels | | Segment |
| Six months ended June 30, 2020 | | | | _ | | _ | _ | | | |
| Six months ended June 30, 2020 Sales: | | | | _ | | _ | | | | |
| | | | | _ | | _ | \$ | | \$ | |
| Sales: | <u> </u> | Products | | Systems | Sti | ructures | \$ | Wheels | \$ | Segment |
| Sales: Third-party sales | <u> </u> | Products 1,366 | | Systems | Sti | 504 | \$ | Wheels | \$ | Segment 2,885 |
| Sales: Third-party sales Inter-segment sales | \$ | 1,366 3 | \$ | 711 — | \$ \$ | 504 5 | | 304 — | | 2,885 8 |
| Sales: Third-party sales Inter-segment sales Total sales | \$ | 1,366 3 | \$ | 711 — | \$ \$ | 504 5 | | 304 — | | 2,885 8 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: | \$ \$ | 1,366 3 1,369 | \$ \$ | 711 — 711 | \$ \$ | 504 5 509 | \$ | 304 — 304 | \$ | 2,885 8 2,893 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit | \$ \$ | 1,366 3 1,369 | \$ \$ | 711 — 711 166 | \$ \$ | 504 5 509 | \$ | 304 — 304 56 | \$ | 2,885 8 2,893 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit Restructuring and other charges (credits) | \$ \$ | 1,366 3 1,369 270 35 | \$ \$ | 711 — 711 166 26 | \$ \$ | 504 5 509 47 12 | \$ | 304 ———————————————————————————————————— | \$ | 2,885 8 2,893 539 539 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit Restructuring and other charges (credits) Provision for depreciation and amortization Capital expenditures | \$ \$ | 1,366 3 1,369 270 35 61 | \$ \$ | 711 — 711 166 26 24 | \$ \$ | 504 5 509 47 12 27 | \$ | 304 ———————————————————————————————————— | \$ | 2,885 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit Restructuring and other charges (credits) Provision for depreciation and amortization | \$ \$ | 1,366 3 1,369 270 35 61 | \$ \$ | 711 — 711 166 26 24 | \$ \$ | 504 5 509 47 12 27 | \$ | 304 ———————————————————————————————————— | \$ | 2,885 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit Restructuring and other charges (credits) Provision for depreciation and amortization Capital expenditures Six months ended June 30, 2019 | \$ \$ | 1,366 3 1,369 270 35 61 | \$ \$ | 711 — 711 166 26 24 | \$ \$ | 504 5 509 47 12 27 | \$ | 304 ———————————————————————————————————— | \$ | 2,885 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit Restructuring and other charges (credits) Provision for depreciation and amortization Capital expenditures Six months ended June 30, 2019 Sales: | \$ \$ \$ | 1,366 3 1,369 270 35 61 33 | \$ - \$ | 711 ——————————————————————————————————— | \$ \$ \$ \$ \$ | 504 5 509 47 12 27 8 | \$ | 304 ———————————————————————————————————— | \$ | 2,885 8 2,893 539 76 131 67 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit Restructuring and other charges (credits) Provision for depreciation and amortization Capital expenditures Six months ended June 30, 2019 Sales: Third-party sales | \$ \$ \$ | 1,366 3 1,369 270 35 61 33 | \$ - \$ | 711 ——————————————————————————————————— | \$ \$ \$ \$ \$ | 504 5 509 47 12 27 8 | \$ | 304 ———————————————————————————————————— | \$ | 2,885 8 2,893 539 76 131 67 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit Restructuring and other charges (credits) Provision for depreciation and amortization Capital expenditures Six months ended June 30, 2019 Sales: Third-party sales Inter-segment sales | \$ \$ \$ | 1,366 3 1,369 270 35 61 33 | \$ \$ \$ | 711 — 711 166 26 24 15 | \$ \$ \$ \$ \$ \$ | 504 5 509 47 12 27 8 | \$ \$ | 304 — 304 — 304 — 56 3 19 11 — 511 — | \$ \$ | 2,885 8 2,893 539 76 131 67 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit Restructuring and other charges (credits) Provision for depreciation and amortization Capital expenditures Six months ended June 30, 2019 Sales: Third-party sales Inter-segment sales Total sales | \$ \$ \$ | 1,366 3 1,369 270 35 61 33 | \$ \$ \$ | 711 — 711 166 26 24 15 | \$ \$ \$ \$ \$ \$ | 504 5 509 47 12 27 8 | \$ \$ | 304 — 304 — 304 — 56 3 19 11 — 511 — | \$ \$ | 2,885 8 2,893 539 76 131 67 3,578 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit Restructuring and other charges (credits) Provision for depreciation and amortization Capital expenditures Six months ended June 30, 2019 Sales: Third-party sales Inter-segment sales Total sales Profit and loss: | \$ \$ \$ \$ \$ | 1,366 3 1,369 270 35 61 33 1,648 8 | \$ \$ \$ \$ | 711 —— 711 166 26 24 15 794 —— 794 | \$ \$ \$ \$ \$ \$ | 504 5 509 47 12 27 8 625 6 631 | \$ \$ | 304 304 304 56 3 19 11 511 | \$ \$ | 2,885 8 2,893 539 76 131 67 3,578 14 3,592 |
| Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit Restructuring and other charges (credits) Provision for depreciation and amortization Capital expenditures Six months ended June 30, 2019 Sales: Third-party sales Inter-segment sales Total sales Profit and loss: Segment operating profit | \$ \$ \$ \$ \$ | 1,366 3 1,369 270 35 61 33 1,648 8 1,656 | \$ \$ \$ \$ | 711 711 166 26 24 15 794 794 | \$ \$ \$ \$ \$ \$ | 504 5 509 47 12 27 8 625 6 631 | \$ \$ | ## Wheels 304 | \$ \$ | Segment 2,885 8 2,893 539 76 131 67 3,578 14 3,592 |

The following table reconciles Total segment operating profit to Income (loss) from continuing operations before income taxes:

| | Second quarter ended | | | | | Six months ended | | | | |
|--|----------------------|-------|----|-------|----|------------------|----|-------|--|--|
| | June 30, | | | | | June 30, | | | | |
| | | 2020 | | 2019 | | 2020 | | 2019 | | |
| Total segment operating profit | \$ | 200 | \$ | 360 | \$ | 539 | \$ | 673 | | |
| Unallocated amounts: | | | | | | | | | | |
| Restructuring and other charges | | (105) | | (472) | | (144) | | (516) | | |
| Corporate expense | | (21) | | (64) | | (63) | | (119) | | |
| Consolidated operating income (loss) | \$ | 74 | \$ | (176) | \$ | 332 | \$ | 38 | | |
| Interest expense | | (144) | | (86) | | (228) | | (171) | | |
| Other expense, net | | (16) | | (6) | | 8 | | (18) | | |
| Income (loss) from continuing operations before income taxes | \$ | (86) | \$ | (268) | \$ | 112 | \$ | (151) | | |

The following table disaggregates revenue by major end market served. Differences between segment and consolidated totals are in Corporate.

| | Eng | ine Products | Fastening Systems | | Engineered Structures | | Forged Wheels | | Total Segment |
|------------------------------------|-----|--------------|----------------------|-----|--------------------------|-----|---------------|-----|------------------|
| Second quarter ended June 30, 2020 | | | | | | | | | |
| Aerospace | \$ | 437 | \$ | 263 | \$ | 208 | \$ | _ | \$ 908 |
| Commercial Transportation | | _ | | 35 | | _ | | 113 | 148 |
| Industrial and Other | | 148 | | 28 | | 21 | | _ | 197 |
| Total end-market revenue | \$ | 585 | \$ | 326 | \$ | 229 | \$ | 113 | \$ 1,253 |
| Second quarter ended June 30, 2019 | | | | | | | | | |
| Aerospace | \$ | 676 | \$ | 304 | \$ | 303 | \$ | _ | \$ 1,283 |
| Commercial Transportation | | 5 | | 62 | | _ | | 257 | 324 |
| Industrial and Other | | 154 | | 33 | | 28 | | _ | 215 |
| Total end-market revenue | \$ | 835 | \$ | 399 | \$ | 331 | \$ | 257 | \$ 1,822 |
| Six months ended June 30, 2020 | | | | | | | | | |
| Aerospace | \$ | 1,071 | \$ | 564 | \$ | 462 | \$ | _ | \$ 2,097 |
| Commercial Transportation | | _ | | 80 | | _ | | 304 | 384 |
| Industrial and Other | | 295 | | 67 | | 42 | | | 404 |
| Total end-market revenue | \$ | 1,366 | \$ | 711 | \$ | 504 | \$ | 304 | \$ 2,885 |
| Six months ended June 30, 2019 | | | | | | | | | |
| Aerospace | \$ | 1,348 | \$ | 610 | \$ | 575 | \$ | _ | \$ 2,533 |
| Commercial Transportation | | 12 | | 120 | | _ | | 513 | 645 |
| Industrial and Other | | 288 | | 64 | | 50 | | (2) | 400 |
| Total end-market revenue | \$ | 1,648 | \$ | 794 | \$ | 625 | \$ | 511 | \$ 3,578 |

In the six months ended June 30, 2020, the Company derived 73% of its revenue from aerospace end markets of which 12% related to General Electric Company.

E. Restructuring and Other Charges

In the second quarter of 2020, the Company recorded Restructuring and other charges of \$105 (\$80 after-tax), which included \$64 (\$53 after-tax) charge for United Kingdom (U.K.) and U.S. pension plans' settlement accounting; \$54 (\$38 after-tax) charge for layoff costs, including the separation of approximately 2,521 employees (1,169 in Fastening Systems, 1,116 in Engine Products, 200 in Engineered Structures and 36 in Forged Wheels); and \$2 (\$2 after-tax) charge for various other exit costs. These charges were partially offset by \$8 (\$6 after-tax) benefit from the reversal of several existing layoff reserves; and a \$7 (\$7 after-tax) benefit from the reversal of an impairment due to change in classification from held for sale to held for use related to a U.K. plant.

In the six months ended June 30, 2020 the Company recorded Restructuring and other charges of \$144 (\$114 after-tax), which included \$76 (\$55 after-tax) for layoff costs, including the separation of approximately 2,981 employees (1,291 in Engine Products, 1,275 in Fastening Systems, 300 in Engineered Structures, 92 in Forged Wheels and 23 in Corporate); \$64 (\$53 after-tax) charge for U.K. and U.S. pension plans' settlement accounting; a \$6 (\$6 after-tax) post-closing adjustment related to the sale of the Company's U.K. forgings business; \$5 (\$5 after-tax) for impairment of assets associated with an agreement to sell an aerospace components business in the U.K.; and \$5 (\$5 after-tax) charge for various other exit costs. These charges were partially offset by a benefit of \$10 (\$8 after-tax) related to the reversal of a number of prior period programs; and a gain of \$2 (\$2 after-tax) on the sale of assets.

In the second quarter of 2019, the Company recorded Restructuring and other charges of \$472 (\$377 after-tax), which included a \$ \$428 (\$345 after-tax) charge for impairment of the Disks long-lived asset group; a \$15 (\$11 after-tax) charge for layoff costs including the separation of approximately 220 employees (53 in Engine Products, 53 in Engineered Structures, 69 in Corporate, 39 in Fastening Systems and 6 in Forged Wheels); a \$12 (\$9 after-tax) charge for other exit costs from lease terminations, primarily related to the exit of the corporate aircraft; a \$12 (\$9 after-tax) loss on sale primarily related to a small additive business within the Engineered Structures segment; a \$6 (\$5 after-tax) charge for impairment of properties, plant, and equipment; a \$2 (\$1 after-tax) charge for pension plan settlement accounting; offset by a benefit of \$3 (\$3 after-tax) for the reversal of a number of small layoff reserves related to prior periods.

In the six months ended June 30, 2019, the Company recorded Restructuring and other charges of \$516 (\$411 after-tax), which included a \$428 (\$345 after-tax) charge for impairment of the Disks long-lived asset group; a \$68 (\$52 after-tax) charge for layoff costs, including the separation of approximately 901 employees (103 in Engine Products, 112 in Engineered Structures, 132 in Fastening Systems, 60 in Forged Wheels and 494 in Corporate); a \$12 (\$9 after-tax) charge for other exit costs from lease terminations, primarily related to the exit of the corporate aircraft; a \$12 (\$9 after-tax) loss on sale of assets primarily related to a small additive business; a \$6 (\$5 after-tax) charge for impairment of properties, plant, and equipment; a \$4 (\$3 after-tax) charge for pension plan settlement accounting; a \$2 (\$1 after-tax) net charge for executive severance net of the benefit of forfeited executive stock compensation and \$3 (\$3 after-tax) charge for other exit costs; partially offset by a benefit of \$15 (\$12 after-tax) related to the elimination of the life insurance benefit for the U.S. salaried and non-bargaining hourly retirees of the Company and its subsidiaries, and a benefit of \$4 (\$4 after-tax) for the reversal of a number of small layoff reserves related to prior periods.

The Company recorded an impairment charge of \$428 related to the Disks long-lived asset group in the second quarter and six months ended 2019, of which \$247 and \$181 was related to the Engine Products and Engineered Structures segments, respectively, as the carrying value exceeded the forecasted undiscounted cash flows composed of a write-down of properties, plant and equipment, intangible assets and certain other noncurrent assets.

| | Lay | off costs | Other | r exit costs | Total |
|---------------------------------------|-----|-----------|-------|--------------|----------|
| Reserve balances at December 31, 2019 | \$ | 13 | \$ | _ | 13 |
| Cash payments | | (24) | | _ | (24) |
| Restructuring charges | | 131 | | 13 | 144 |
| Other ⁽¹⁾ | | (64) | | (13) | (77) |
| Reserve balances at June 30, 2020 | \$ | 56 | \$ | _ | \$ 56 |

(1) In 2020, Layoff costs included a \$64 charge for U.K. and U.S. pension plans' settlement accounting while Other exit costs included a charge of \$6 for impairment of assets and a \$6 post-closing adjustment, both associated with an agreement to sell an aerospace component business in the U.K.; and a \$3 charge for other exit costs which were offset by a gain of \$2 on the sale of assets.

The remaining reserves are expected to be paid in cash during 2020.

F. Other Expense (Income), Net

| | | Second qua | erter end e 30, | led | Six months ended June 30, | | | | |
|---|----|------------|--------------------|------|------------------------------|----|------|--|--|
| | 2 | 020 | | 2019 | 2020 | | 2019 | | |
| Non-service related net periodic benefit cost | \$ | 5 | \$ | 4 | 11 | | 8 | | |
| Interest income | | _ | | (5) | (4) | | (15) | | |
| Foreign currency (gains) losses, net | | (7) | | (4) | (7) | | 1 | | |
| Net loss from asset sales | | 2 | | 5 | 4 | | 7 | | |
| Deferred compensation | | 7 | | 5 | (3) | | 15 | | |
| Other, net | | 9 | | 1 | (9) | | 2 | | |
| | \$ | 16 | \$ | 6 | \$ (8) | \$ | 18 | | |

G. Pension and Other Postretirement Benefits

The components of net periodic benefit cost were as follows:

| | Second quarter ended | | | | | Six months ended | | | | | |
|---|----------------------|------|-------|------|----------|------------------|------|-------|--|--|--|
| | | Jur | 1e 30 | , | June 30, | | | | | | |
| | | 2020 | | 2019 | | 2020 | 2019 | | | | |
| Pension benefits | | | | | | | | | | | |
| Service cost | \$ | 2 | \$ | 6 | \$ | 9 | \$ | 13 | | | |
| Interest cost | | 17 | | 59 | | 64 | | 118 | | | |
| Expected return on plan assets | | (24) | | (71) | | (94) | | (143) | | | |
| Recognized net actuarial loss | | 12 | | 34 | | 54 | | 69 | | | |
| Amortization of prior service cost (benefit) | | _ | | 1 | | _ | | 1 | | | |
| Settlements | | 64 | | 2 | | 64 | | 4 | | | |
| Net periodic benefit cost ⁽¹⁾ | | 71 | | 31 | | 97 | | 62 | | | |
| Discontinued operations | | _ | | 24 | | 20 | | 48 | | | |
| Net amount recognized in Statement of Consolidated Operations | \$ | 71 | \$ | 7 | \$ | 77 | \$ | 14 | | | |
| Other postretirement benefits | | | | | | | | | | | |
| Service cost | \$ | 1 | \$ | 2 | \$ | 2 | \$ | 4 | | | |
| Interest cost | | 1 | | 7 | | 7 | | 14 | | | |
| Recognized net actuarial loss | | _ | | 1 | | 2 | | 2 | | | |
| Amortization of prior service cost (benefit) | | (1) | | (2) | | (3) | | (3) | | | |
| Curtailments | | _ | | _ | | _ | | (58) | | | |
| Net periodic benefit cost ⁽¹⁾ | | 1 | | 8 | | 8 | | (41) | | | |
| Discontinued operations | | _ | | 7 | | 6 | | (29) | | | |
| Net amount recognized in Statement of Consolidated Operations | \$ | 1 | \$ | 1 | \$ | 2 | \$ | (12) | | | |

Service cost was included within Cost of goods sold, Selling, general administrative, and other expenses, and Research and development expenses; settlements and curtailments were included in Restructuring and other charges; and all other cost components were recorded in Other expense, net in the Statement of Consolidated Operations.

In the second quarter of 2020, the Company undertook a number of actions to reduce pension obligations in the U.K. by offering lump sum payments to certain plan participants and entering into group annuity contracts with a third party carrier to pay and administer future annuity payments. The Company applied settlement accounting to these U.K. pension plans which resulted in settlement charges of \$62 that were recorded in Restructuring and other charges in the Statement of Consolidated Operations. The Company also applied settlement accounting to a U.S. pension plan due to lump sum payments to participants which resulted in settlement charges of \$2 that were recorded in Restructuring and other charges.

In the second quarter of 2020, the Company communicated to plan participants that for its U.S. salaried and non-bargained hourly retirees of the Company and its subsidiaries, it would eliminate certain health care subsidies effective December 31, 2021 and that for certain bargained retirees of the Company, it would eliminate certain health care subsidies effective December 31, 2021 and the life insurance benefit effective August 1, 2020. As a result of these changes, in the second quarter of 2020, the Company recorded a decrease to the Accrued other postretirement benefits liability of \$6, which was offset in Accumulated other comprehensive loss.

In the first quarter of 2019, the Company communicated to plan participants that for its U.S. salaried and non-bargained hourly retirees of the Company and its subsidiaries, it would eliminate the life insurance benefit effective May 1, 2019, and certain health care subsidies effective December 31, 2019. As a result of these changes, in the first quarter of 2019, the Company recorded a decrease to the Accrued other postretirement benefits liability of \$75, which was offset by a curtailment benefit of \$58 in Restructuring and other charges in the Statement of Consolidated Operations and \$17 in Accumulated other comprehensive loss in the Statement of Changes in Consolidated Equity.

In the second quarter and six months ended June 30, 2019, the Company applied settlement accounting to a U.S. pension plan due to lump sum payments to participants, which resulted in settlement charges of \$2 and \$4, respectively, that were recorded in Restructuring and other charges.

H. Income Taxes

The Company's year-to-date tax provision is comprised of the most recent estimated annual effective tax rate applied to year-to-date pre-tax ordinary income. The tax impacts of unusual or infrequently occurring items, including changes in judgment about valuation allowances and effects of changes in tax laws or rates, are recorded discretely in the interim period in which they occur. In addition, the tax provision is adjusted for the interim period impact of non-benefited pre-tax losses.

The estimated annual effective tax rate, before discrete items, applied to ordinary income was 36.1% in both the second quarter and six months ended June 30, 2020, and 51.8% in both the second quarter and six months ended June 30, 2019. The 2020 rate was higher than the U.S. federal statutory rate of 21% primarily due to U.S. tax on foreign earnings, incremental state tax and foreign taxes on earnings also subject to U.S. federal income tax and higher nondeductible expenses. The 2019 rate was higher due to U.S. tax on foreign earnings including estimated U.S. tax on Global Intangible Low Taxed Income, nondeductible impairment of certain domestic and foreign long-lived assets and other nondeductible expenses.

For the second quarter of 2020 and 2019, the tax rate including discrete items was 2.3% and 49.3% (both are benefits on losses), respectively. For the second quarter of 2020, the Company recorded a discrete tax charge of \$10 related to a \$6 charge for the remeasurement of deferred tax balances in various jurisdictions as a result of the Arconic Inc. Separation Transaction and a net \$4 charge for prior year items. For the second quarter of 2019, the Company recorded a discrete tax benefit of \$37 related to a \$25 benefit to deduct prior year foreign taxes rather than claim a U.S. foreign tax credit and a \$12 benefit to remeasure certain deferred tax assets as a result of a foreign tax rate change.

For the six months ended June 30, 2020 and 2019, the tax rate including discrete items was 2.3% (provision on income) and 49.3% (benefit on loss), respectively. For the six months ended June 30, 2019, the Company recorded a discrete tax benefit of \$37 related to a \$25 benefit to deduct prior year foreign taxes rather than claim a U.S. foreign tax credit and a \$12 benefit to remeasure certain deferred tax assets as a result of a foreign tax rate change.

The tax provisions for the second quarter and six months ended June 30, 2020 and 2019 were comprised of the following:

| | | Second qu | arter | ended | Six mon | ths end | led |
|--|----------|-----------|-------|-------|----------|---------|-------|
| | June 30, | | | | Jun | e 30, | |
| | | 2020 | | 2019 | 2020 | | 2019 |
| Pre-tax income (loss) at estimated annual effective income tax rate before discrete items | \$ | (31) | \$ | (139) | \$ 40 | \$ | (78) |
| Impact of change in estimated annual effective tax rate on previous quarter's pre-tax income | | 18 | | 31 | _ | | _ |
| Interim period treatment of operational losses in foreign jurisdictions for which no tax benefit is recognized | | 1 | | 13 | 1 | | 14 |
| Other discrete items | | 10 | | (37) | 2 | | (37) |
| Provision (benefit) for income taxes | \$ | (2) | \$ | (132) | \$ 43 | \$ | (101) |

During the period, a \$16 tax adjustment was identified related to periods prior to 2018. The adjustment was evaluated and determined not to be material to any periods. As such, it was corrected through Retained earnings in the Statement of Changes in Consolidated Equity.

I. Earnings Per Share

Basic earnings per share ("EPS") amounts are computed by dividing earnings, after the deduction of preferred stock dividends declared, by the average number of common shares outstanding. Diluted EPS amounts assume the issuance of common stock for all potentially dilutive share equivalents outstanding.

The information used to compute basic and diluted EPS attributable to the Company's common shareholders was as follows (shares in millions):

| Second quarter ended | | | ended | | ıded | | |
|----------------------|------|---|---|-------------------------------------|---------------------------|--|---|
| | Jur | ıe 30, | | June 3 | | | |
| , <u> </u> | 2020 | | 2019 | 2020 | | | 2019 |
| | | | | | | | |
| \$ | (84) | \$ | (136) | \$ | 69 | \$ | (50) |
| | (12) | | 15 | | 50 | | 116 |
| | (96) | | (121) | | 119 | | 66 |
| | _ | | _ | | (1) | | (1) |
| | (96) | | (121) | | 118 | | 65 |
| | _ | | 3 | | _ | | 6 |
| \$ | (96) | \$ | (118) | \$ | 118 | \$ | 71 |
| | 436 | | 445 | | 436 | | 458 |
| | | | | | | | |
| | _ | | _ | | _ | | _ |
| | _ | | _ | | 4 | | 4 |
| | _ | | _ | | _ | | |
| | 436 | | 445 | | 440 | | 462 |
| | | \$ (84) (12) (96) ———————————————————————————————————— | \$ (84) \$ (12) (96) ———————————————————————————————————— | \$ (84) \$ (136) (12) 15 (96) (121) | \$ (84) \$ (136) \$ (121) | June 30, June 2020 \$ (84) \$ (136) \$ 69 (12) 15 50 (96) (121) 119 — — (1) (96) (121) 118 — 3 — \$ (96) \$ (118) \$ 118 436 445 436 — — — — — | June 30, 2020 2019 2020 \$ (84) \$ (136) \$ 69 \$ (12) 15 50 (96) (121) 119 — — (1) (96) (121) 118 — 3 — \$ (96) \$ (118) \$ 118 \$ 436 445 436 — — — — — |

The convertible notes matured on October 15, 2019. No shares of the Company's common stock were issued in connection with the maturity or the final conversion of the convertible notes. As of October 15, 2019, the calculation of average diluted shares outstanding ceased to include the approximately 15 million shares of common stock and the corresponding interest expense previously attributable to the convertible notes.

Common stock outstanding at June 30, 2020 and 2019 was 436 and 440, respectively. The decrease in common stock outstanding at June 30, 2020 was primarily due to the impact of 8 of share repurchases during the second half of 2019. As average shares outstanding are used in the calculation for both basic and diluted EPS, the full impact of share repurchases was not realized in EPS in the second quarter and six months ended June 30, 2019, as the share repurchases occurred at varying points during 2019.

The following shares were excluded from the calculation of average shares outstanding – diluted as their effect was anti-dilutive (shares in millions).

| | Second quar June 3 | | Six months ended June 30, | | | |
|------------------------------|-----------------------|------|------------------------------|------|--|--|
| | 2020 | 2019 | 2020 | 2019 | | |
| Convertible notes | | 14 | _ | 14 | | |
| Stock options ⁽¹⁾ | 3 | 3 | 3 | 3 | | |
| Stock and performance awards | 3 | 4 | _ | _ | | |

The weighted average exercise price per share of options excluded from diluted EPS was \$26.04 and \$32.66 as of June 30, 2020 and June 30, 2019, respectively.

J. Accumulated Other Comprehensive Loss

The following table details the activity of the four components that comprise Accumulated other comprehensive loss:

| | | _ | arter ended ne 30, | | | Six months ended June 30, | | |
|---|----|---------|-----------------------|----------|----|------------------------------|----|---------|
| | - | 2020 | | 2019 | | 2020 | | 2019 |
| Pension and other postretirement benefits (G) | | | | | | | | |
| Balance at beginning of period | \$ | (2,695) | \$ | (2,304) | \$ | (2,732) | \$ | (2,344) |
| Other comprehensive income: | | | | | | | | |
| Unrecognized net actuarial loss and prior service cost/benefit | | (60) | | (6) | | (59) | | 66 |
| Tax expense | | 8 | | 1 | | 8 | | (15) |
| Total Other comprehensive income (loss) before reclassifications, net of tax | | (52) | | (5) | · | (51) | | 51 |
| Amortization of net actuarial loss and prior service cost ⁽¹⁾ | | 74 | | 36 | | 117 | | 15 |
| Tax (expense) benefit (2) | | (13) | | (8) | | (20) | | (3) |
| Total amount reclassified from Accumulated other comprehensive loss, net of $tax^{(3)}$ | | 61 | | 28 | | 97 | | 12 |
| Total Other comprehensive income | | 9 | | 23 | | 46 | | 63 |
| Transfer to Arconic Corporation | \$ | 1,820 | \$ | | \$ | 1,820 | \$ | _ |
| Balance at end of period | \$ | (866) | \$ | (2,281) | \$ | (866) | \$ | (2,281) |
| Foreign currency translation | | | | <u> </u> | - | | | |
| Balance at beginning of period | \$ | (661) | \$ | (557) | \$ | (596) | \$ | (583) |
| Foreign currency translation | | (8) | | (30) | | (87) | | (4) |
| Net amount reclassified from Accumulated other comprehensive loss ⁽⁴⁾ | | _ | | _ | | 14 | | _ |
| Other comprehensive (loss) income | | (8) | | (30) | | (73) | | (4) |
| Transfer to Arconic Corporation | | (428) | | _ | | (428) | | _ |
| Balance at end of period | \$ | (1,097) | \$ | (587) | \$ | (1,097) | \$ | (587) |
| Available-for-sale securities | _ | | | | | | | |
| Balance at beginning of period | \$ | 1 | \$ | _ | \$ | _ | \$ | (3) |
| Other comprehensive income (loss) ⁽⁵⁾ | | (1) | | _ | | _ | | 3 |
| Balance at end of period | \$ | _ | \$ | _ | \$ | _ | \$ | _ |
| Cash flow hedges | | | _ | | | | | |
| Balance at beginning of period | \$ | (14) | \$ | 9 | \$ | (1) | \$ | 4 |
| Adoption of accounting standard | | _ | | _ | | _ | | (2) |
| Other comprehensive (loss) income: | | | | | | | | |
| Net change from periodic revaluations | | 3 | | (13) | | (8) | | (5) |
| Tax expense | | 1 | | 3 | | _ | | 2 |
| Total Other comprehensive loss (income) before reclassifications, net of tax | | 4 | | (10) | | (8) | | (3) |
| Net amount reclassified to earnings | | 5 | | (1) | | 4 | | (1) |
| Tax expense ⁽²⁾ | | _ | | 1 | | _ | | 1 |
| Total amount reclassified from Accumulated other comprehensive loss, net of $tax^{(3)}$ | | 5 | | _ | | 4 | | _ |
| Total Other comprehensive (loss) income | | 9 | | (10) | | (4) | | (3) |
| Balance at end of period | \$ | (5) | \$ | (1) | \$ | (5) | \$ | (1) |
| Accumulated other comprehensive loss | \$ | (1,968) | \$ | (2,869) | \$ | (1,968) | \$ | (2,869) |

These amounts were recorded in Other expense (income), net (see Note \underline{F}).

⁽²⁾ These amounts were included in Provision (benefit) for income taxes on the Statement of Consolidated Operations.

⁽³⁾ A positive amount indicates a charge to earnings and a negative amount indicates a benefit to earnings.

Foreign currency translation charges were included in Restructuring and other charges on the Statement of Consolidated Operations due to the sale of foreign entities.

⁽⁵⁾ Realized gains and losses were included in Other expense (income), net on the Statement of Consolidated Operations.

K. Receivables

Sale of Receivables Programs

The Company has two accounts receivable securitization arrangements.

The first is an arrangement with several financial institutions to sell certain customer receivables without recourse on a revolving basis ("Receivables Sale Program"). The sale of such receivables is completed using a bankruptcy remote special purpose entity, which is a consolidated subsidiary of the Company. This arrangement historically provided up to a maximum funding of \$400 for receivables sold. The Company maintains a beneficial interest, or a right to collect cash, on the sold receivables that have not been funded (deferred purchase program receivable). In the first quarter of 2020, the Company entered into an amendment to remove subsidiaries of Arconic Corporation from the sale of receivables program in preparation for the Arconic Inc. Separation Transaction and repurchased the remaining \$282 unpaid receivables of Arconic Corporation in a non-cash transaction by reducing the amount of the deferred purchase program receivable. This amendment also reduced the maximum funding for receivables sold to \$300.

The Company had net cash repayments totaling \$136 (\$138 in draws and \$274 in repayments) for the six months ended June 30, 2020.

As of June 30, 2020 and December 31, 2019, the deferred purchase program receivable was \$97 and \$246, respectively, which was included in Other receivables on the accompanying Consolidated Balance Sheet. The deferred purchase program receivable is reduced as collections of the underlying receivables occur; however, as this is a revolving program, the sale of new receivables will result in an increase in the deferred purchase program receivable. The Company services the customer receivables for the financial institutions at market rates; therefore, no servicing asset or liability was recorded.

Cash receipts from customer payments on sold receivables (which are cash receipts on the underlying trade receivables that have been previously sold in this program) as well as cash receipts and cash disbursements from draws and repayments under the program are presented as cash receipts from sold receivables within investing activities in the Statement of Consolidated Cash Flows.

On April 14, 2020, the Company's credit rating was downgraded by Moody's Investors Service, Inc., which resulted in a termination event under the provisions of the Receivables Sale Program agreement for which a waiver was obtained. This termination event under the Receivables Sale Program is not an event of default under the Company's other financing and commercial agreements, including the Credit Agreement. On May 5, 2020, an amendment to the Receivables Sale Program was executed that cured the termination event.

The second arrangement is one in which the Company, through a wholly-owned special purpose entity ("SPE"), entered into a receivables purchase agreement (the "Receivables Purchase Agreement") on June 30, 2020 such that the SPE may sell certain receivables to financial institutions until the earlier of June 30, 2021 or a termination event. The Receivables Purchase Agreement also contains customary representations and warranties, as well as affirmative and negative covenants. Pursuant to the Receivables Purchase Agreement, the Company does not maintain effective control over the transferred receivables, and therefore accounts for these transfers as sales of receivables.

The SPE sold \$77 of its receivables without recourse and received cash funding under this program during the second quarter and six months ended June 30, 2020 resulting in derecognition of the receivables from the Company's consolidated balance sheets. Cash received from collections of sold receivables is used by the SPE to fund additional purchases of receivables on a revolving basis, not to exceed \$125, which is the aggregate maximum limit. As collateral against the sold receivables, the SPE maintains a certain level of unsold receivables, which was \$30 at June 30, 2020. Costs associated with the sales of receivables are reflected in the Company's Consolidated statements of operations for the periods in which the sales occur. Cash receipts from sold receivables are presented within Operating Activities in the Statement of Consolidated Cash Flows.

Other Customer Receivable Sales

In the second quarter and six months ended June 30, 2020, the Company supplemented the first accounts receivable securitization arrangement by selling \$10 and \$24 of a certain customer's receivables in exchange for cash, the proceeds from which are presented in changes in receivables within operating activities in the Statement of Consolidated Cash Flows. The sale of these customer receivables partially offset the maximum funding reduction resulting from the Arconic Inc. Separation Transaction as well as customer concentration limits within the first accounts receivable securitization arrangement.

In the second quarter and six months ended June 30, 2020, the Company also began to sell another customer's receivables of \$48 and \$65 in exchange for cash, the proceeds from which are presented in changes in receivables within operating activities in the Statement of Consolidated Cash Flows. The sale of these customer receivables is being undertaken to offset a change in the customer's payment patterns in which the customer had been taking a contractually available discount for paying early.

L. Inventories

| | Jun | e 30, 2020 | December 31, 201 | | |
|-------------------------|-----|------------|------------------|-------|--|
| Finished goods | \$ | 525 | \$ | 524 | |
| Work-in-process | | 764 | | 741 | |
| Purchased raw materials | | 339 | | 299 | |
| Operating supplies | | 45 | | 43 | |
| Total inventories | \$ | 1,673 | \$ | 1,607 | |

At June 30, 2020 and December 31, 2019, the portion of inventories valued on a last-in, first-out (LIFO) basis was \$510 and \$503, respectively. If valued on an average-cost basis, total inventories would have been \$124 and \$133 higher at June 30, 2020 and December 31, 2019, respectively.

M. Properties, Plants, and Equipment, net

| | June | 30, 2020 | December 31, 2019 | | |
|---|------|----------|-------------------|-------|--|
| Land and land rights | \$ | 96 | \$ | 101 | |
| Structures | | 1,004 | | 1,058 | |
| Machinery and equipment | | 3,767 | | 3,742 | |
| | | 4,867 | | 4,901 | |
| Less: accumulated depreciation and amortization | | 2,506 | | 2,620 | |
| | | 2,361 | | 2,281 | |
| Construction work-in-progress | | 197 | | 348 | |
| Properties, plants, and equipment, net | \$ | 2,558 | \$ | 2,629 | |

N. Leases

Operating lease cost, which includes short-term leases and variable lease payments and approximates cash paid, was \$18 and \$22 in the second quarter of 2020 and 2019, respectively. Operating lease cost, which includes short-term leases and variable lease payments and approximates cash paid, was \$36 and \$43 in the first half of 2020 and 2019, respectively.

Operating lease right-of-use assets and lease liabilities in the Consolidated Balance Sheet were as follows:

| | June 30 | 0, 2020 | mber 31, 2019 |
|---|---------|---------|------------------|
| Right-of-use assets classified in Other noncurrent assets | \$ | 118 | \$ 125 |
| Current portion of lease liabilities classified in Other current liabilities | | 36 | 38 |
| Long-term portion of lease liabilities classified in Other noncurrent liabilities | | 91 | 98 |
| Total lease liabilities | \$ | 127 | \$ 136 |

O. Debt

| | June 30, 2020 | December 31, 2019 |
|--|---------------|----------------------|
| 6.150% Notes, due 2020 | | 1,000 |
| 5.400% Notes due 2021 | 361 | 1,250 |
| 5.870% Notes, due 2022 | 476 | 627 |
| 5.125% Notes, due 2024 | 1,250 | 1,250 |
| 6.875% Notes, due 2025 | 1,200 | _ |
| 5.900% Notes, due 2027 | 625 | 625 |
| 6.750% Bonds, due 2028 | 300 | 300 |
| 5.950% Notes, due 2037 | 625 | 625 |
| 4.750% Iowa Finance Authority Loan, due 2042 | 250 | 250 |
| Other (1) | (1) | 13 |
| | 5,086 | 5,940 |
| Less: amount due within one year | 391 | 1,034 |
| Total long-term debt | \$ 4,695 | \$ 4,906 |

⁽¹⁾ Includes various financing arrangements related to subsidiaries, unamortized debt discounts and unamortized debt issuance costs related to outstanding notes and bonds listed in the table above

Public Debt.

On April 6, 2020, the Company completed the early redemption of all \$1,000 of its 6.150% Notes due 2020 (the "6.150% Notes") and the early partial redemption of \$300 of its 5.400% Notes due 2021 (the 5.400% Notes"). Holders of the 6.150% Notes were paid an aggregate of \$1,020 and holders of the 5.400% Notes were paid an aggregate of \$315, plus accrued and unpaid interest up to, but not including, the redemption date. The Company incurred early termination premium and accrued interest of \$35 and \$17, respectively, which has been recorded in Interest expense, net during the second quarter of 2020 in the Statement of Consolidated Operations.

On April 16, 2020, The Company filed a shelf registration statement on Form S-3 with the Securities and Exchange Commission, which became effective automatically (the "Shelf Registration Statement"). The Shelf Registration Statement allows for offerings of debt securities from time to time.

On April 24, 2020, the Company completed an offering of \$1,200 aggregate principal amount of 6.875% Notes due 2025, the proceeds of which have been used to fund the cash tender offers noted below and to pay related transaction fees, including applicable premiums and expenses, with the remaining amount to be used for general corporate purposes. The Company incurred deferred financing costs of \$14 associated with the issuance in second quarter of 2020.

On May 21, 2020, the Company completed a cash tender offer and redeemed \$589 and \$151 of principal amount of the 5.400% Notes due 2021 and its 5.870% Notes due 2022, respectively. The amount of early tender premium and accrued interest and associated with the notes accepted for early settlement were \$24 and \$4, respectively, which was recorded during the second quarter of 2020 in Interest expense, net in the Statement of Consolidated Operations.

Credit Facilities.

In March 2020, the Company entered into an amendment to its Five-Year Revolving Credit Agreement (the "Credit Agreement"). The amendment was entered into to permit the Arconic Inc. Separation Transaction and to amend certain terms of the Credit Agreement, including a change to the existing financial covenant and reduction of total commitments available from \$3,000 to \$1,500, effective April 1, 2020 and extended the maturity date from June 29, 2023 to April 1, 2025. The Company was required to maintain a ratio of Consolidated Net Debt (as defined in the Credit Agreement) to Consolidated EBITDA (as defined in the Credit Agreement) to be no greater than 3.50 to 1.00.

On June 26, 2020, the Company entered into another amendment to its Credit Agreement to provide relief from its existing financial covenant through December 31, 2021 and reduce total commitment available from \$1,500 to \$1,000. The Company will be required to maintain a ratio of Consolidated Net Debt (as defined in the Credit Agreement) to Consolidated EBITDA (as defined in the Credit Agreement) as of the end of each fiscal quarter for the period of the four fiscal quarters of the Company most recently ended, to be no greater than (i) 5.00 to 1.00 for any quarter ending on or prior to December 31, 2020, (ii) 5.25 to 1.00 for the quarter ending March 31, 2021, (iii) 5.00 to 1.00 for the quarter ending June 30, 2021, (iv) 4.50 to 1.00 for the quarter ending September 30, 2021, and (v) 4.00 to 1.00 for the quarter ending December 31, 2021. The ratio returns to 3.50 to 1.00 for all periods thereafter. There were no amounts outstanding at June 30, 2020 or December 31, 2019, and no amounts were borrowed during 2020 or 2019 under the Credit Agreement. At June 30, 2020, the Company was in compliance with all covenants under the Credit Agreement.

In addition to the Credit Agreement, the Company has a number of other credit agreements that provide a combined borrowing capacity of \$250 at June 30, 2020 which is due to expire at various dates in the second half of 2020. The purpose of any borrowings under these credit arrangements is to provide for working capital requirements and for other general corporate purposes. The covenants contained in all these arrangements are the same as the Credit Agreement. During the six months ended June 30, 2020, there were no borrowings or repayments under these other credit facilities.

P. Fair Value of Financial Instruments

The carrying values of Cash and cash equivalents, Restricted cash, Derivatives, Noncurrent receivables, and Short-term debt included in the Consolidated Balance Sheet approximate their fair value. The Company holds exchange-traded fixed income securities which are considered available-for-sale securities that are carried at fair value which is based on quoted market prices which are classified in Level 1 of the fair value hierarchy. The fair value of Long-term debt, less amount due within one year was based on quoted market prices for public debt and on interest rates that are currently available to the Company for issuance of debt with similar terms and maturities for non-public debt. The fair value amounts for all Long-term debt were classified in Level 2 of the fair value hierarchy.

| | June 30, 2020 | | December | | r 31, 2019 | | |
|---|-------------------|----|---------------|----|-------------------|----|---------------|
| | Carrying value | | Fair value | (| Carrying value | | Fair value |
| Long-term debt, less amount due within one year | \$ 4,695 | \$ | 4,997 | \$ | 4,906 | \$ | 5,337 |

Restricted cash, which was included in Prepaid assets and other current liabilities in the Consolidated Balance Sheet, was \$4 and \$55 at June 30, 2020 and December 31, 2019, respectively.

Q. Acquisitions and Divestitures

2020 Divestitures.

On January 31, 2020, the Company reached an agreement to sell a small manufacturing plant in the U.K. for \$12 in cash, subject to working capital and other adjustments. The operating results and assets and liabilities of this plant are included in the Engineered Structures segment. As a result of entering into the agreement to sell, the Company recognized a charge of \$12 related to a non-cash impairment of the net book value of the business, primarily properties, plants, and equipment in the first quarter of 2020. The sale is not expected to occur. As a result the Company changed the classification of the assets from held for sale to held for use and recorded these assets at their lower of carrying value (assuming no initial reclassification for held for sale was made) or fair value. The result was a reversal of \$7 related to a non-cash impairment in the second quarter of 2020. These charges were recorded in Restructuring and other charges in the Statement of Consolidated Operations.

2019 Divestiture.

On December 1, 2019, the Company completed the sale of its forgings business in the U.K. for \$64 in cash, which resulted in a loss on sale of \$46 that was recognized in 2019 and an incremental charge of \$6 related to certain post-closing adjustments in the first quarter of 2020. These charges were recorded in Restructuring and other charges in the Statement of Consolidated Operations. Of the cash proceeds received, \$53 was recorded as Restricted cash within Prepaid expenses and other current

assets on the Consolidated Balance Sheet at December 31, 2019 as its use is subject to restriction by the U.K. pension authority until certain U.K. pension plan changes were made and approved. In the second quarter of 2020, the restriction was removed, and the proceeds were reclassified to Cash and cash equivalents. The forgings business primarily produces steel, titanium, and nickel based forged components for aerospace, mining, and off-highway markets and its operating results and assets and liabilities were included in the Engine Products segment. The sale remains subject to certain remaining post-closing adjustments. This business generated sales of \$34 and \$66 in the second quarter and six months ended June 30, 2019, respectively, and had 540 employees at the time of divestiture.

On May 31, 2019, the Company sold a small additive manufacturing facility within the Engineered Structures segment for \$1 in cash, which resulted in a loss of \$13 related to the non-cash impairment of the net book value of the business recorded in Restructuring and other charges in the Statement of Consolidated Operations.

On August 15, 2019, the Company sold inventories and properties, plant and equipment related to a small energy business within the Engineered Structures segment for \$13 in cash. As the sale was substantially complete as of June 30, 2019, and the sale price was estimated to be less than the carrying value, the Company recognized a charge of \$9 in the second quarter of 2019 related to inventory impairment and recorded the charge in Cost of goods sold in the Statement of Consolidated Operations.

R. Contingencies and Commitments

Contingencies

Environmental Matters

The Company participates in environmental assessments and cleanups at more than 30 locations. These include owned or operating facilities and adjoining properties, previously owned or operating facilities and adjoining properties, and waste sites, including Superfund (Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA")) sites.

A liability is recorded for environmental remediation when a cleanup program becomes probable and the costs can be reasonably estimated. As assessments and cleanups proceed, the liability is adjusted based on progress made in determining the extent of remedial actions and related costs. The liability can change substantially due to factors such as the nature and extent of contamination, changes in remedial requirements, and technological changes, among others.

The Company's remediation reserve balance was \$8 at June 30, 2020 and \$8 at December 31, 2019, recorded in Other noncurrent liabilities and deferred credits in the Consolidated Balance Sheet (of which \$4 and \$3, respectively, were classified as a current liability), and reflects the most probable costs to remediate identified environmental conditions for which costs can be reasonably estimated. Payments related to remediation expenses applied against the reserve were less than \$1 in the second quarter ended June 30, 2020, which includes expenditures currently mandated, as well as those not required by any regulatory authority or third party.

Included in annual operating expenses are the recurring costs of managing hazardous substances and environmental programs. These costs are estimated to be approximately 1% or less of Cost of goods sold.

The Company previously reported on a remediation project related to the Grasse River, which is adjacent to the Massena West, New York plant site that is now part of Arconic Corporation. In connection with the Arconic Inc. Separation Transaction, the Company entered into a separation and distribution agreement (the "Separation and Distribution Agreement") with Arconic Corporation, which, together with the documents and agreements by which the internal reorganization of the Company prior to the separation was effected, determined the allocation of assets and liabilities between the Company and Arconic Corporation following the separation and included any necessary indemnifications related to liabilities and obligations. In general, the respective parties will be responsible for the environmental matters associated with their operations, and with the properties and other assets assigned to each. Pursuant to the Separation and Distribution Agreement, Arconic Corporation agreed to assume and indemnify the Company against potential liabilities associated with the remediation project related to the Grasse River. Therefore, the Company will no longer report on the Grasse River matter unless and until some event in the future causes it to become material and reportable.

Tax

Pursuant to the October 31, 2016 Tax Matters Agreement between the Company and Alcoa Corporation, Alcoa Corporation shares responsibility with and has agreed to partially indemnify the Company for the following matter. Additionally, as part of the March 31, 2020 Tax Matters Agreement between the Company and Arconic Corporation, Arconic Corporation also shares partial responsibility with and has agreed to partially indemnify the Company for its own share of the same matter. In connection with these indemnities, Alcoa Corporation and Arconic Corporation retain 49% and 34% of the total liability, respectively, for the following matter, and the Company retains the remaining 17% of the total liability.

As previously reported, in July 2013, following a Spanish corporate income tax audit covering the 2006 through 2009 tax years, an assessment was received mainly disallowing certain interest deductions claimed by a Spanish consolidated tax group owned by the Company. In August 2013, the Company filed an appeal of this assessment in Spain's Central Tax Administrative Court, which was denied in January 2015. The Company filed another appeal in Spain's National Court in March 2015 which was denied in July 2018. The National Court's decision requires the assessment for the 2006 through 2009 tax years to be reissued to take into account the outcome of the 2003 to 2005 audit which was closed in 2017. The Company estimates the revised assessment to be \$174 (€154), including interest.

In March 2019, the Supreme Court of Spain accepted the Company's petition to review the National Court's decision, and the Company has filed a formal appeal of the assessment. The Supreme Court is reviewing the assessment on its merits and will render a final decision. In the event the Company receives an unfavorable ruling from the Supreme Court of Spain, a portion of the assessment may be offset with existing net operating losses and tax credits available to the Spanish consolidated tax group in existence during the audit period.

In the third quarter of 2018, the Company established an income tax reserve and an indemnification receivable representing Alcoa Corporation's 49% share of the liability. Pursuant to the Tax Matters Agreement with Arconic Corporation, as of the second quarter of 2020 the Company established an additional income tax receivable representing Arconic Corporation's 34% share of the total liability. As of June 30, 2020, the balances of the Company's reserve, including interest, and the receivables are $$60 \ (£54)$$ and $$50 \ (£45)$$, respectively.

The tax years 2010 through 2013 are closed to audit. In July of 2020, a Spanish corporate income tax audit covering the period 2014 through 2018 commenced. Any potential assessment for the tax period open to audit is not expected to be material to the Company's consolidated operations.

Reynobond PE

Prior to the Arconic Inc. Separation Transaction on April 1, 2020, the Company was known as Arconic Inc. References to "Arconic Inc." in this "Reynobond PE" section refer to Arconic Inc. only and do not include its subsidiaries, except as otherwise stated.

On June 13, 2017, the Grenfell Tower in London, U.K. caught fire resulting in fatalities, injuries and damage, A French subsidiary of Arconic Inc., Arconic Architectural Products SAS (AAP SAS), supplied a product, Reynobond PE, to its customer, a cladding system fabricator, which used the product as one component of the overall cladding system on Grenfell Tower. The fabricator supplied its portion of the cladding system to the façade installer, who then completed and installed the system under the direction of the general contractor. Neither Arconic Inc. nor AAP SAS was involved in the design or installation of the system used at the Grenfell Tower, nor did it have a role in any other aspect of the building's refurbishment or original design. Regulatory investigations into the overall Grenfell Tower matter are being conducted, including a criminal investigation by the London Metropolitan Police Service (the "Police"), a Public Inquiry by the British government and a consumer protection inquiry by a French public authority. The Public Inquiry was announced by the U.K. Prime Minister on June 15, 2017 and subsequently was authorized to examine the circumstances leading up to and surrounding the Grenfell Tower fire in order to make findings of fact and recommendations to the U.K. Government on matters such as the design, construction and modification of the building, the role of relevant public authorities and contractors, the implications of the fire for the adequacy and enforcement of relevant regulations, arrangements in place for handling emergencies and the handling of concerns from residents, among other things. Hearings for Phase 1 of the Public Inquiry began on May 21, 2018 and concluded on December 12, 2018. Phase 2 hearings of the Public Inquiry began in early 2020, following which a final report will be written and subsequently published. AAP SAS is participating as a Core Participant in the Public Inquiry and is also cooperating with the ongoing parallel investigation by the Police. The Company no longer sells the PE product for architectural use on buildings. Given the preliminary nature of these investigations and the uncertainty of potential future litigation, the Company cannot reasonably estimate at this time the likelihood of an unfavorable outcome or the possible loss or range of losses in the event of an unfavorable outcome.

Pursuant to the Separation and Distribution Agreement, Arconic Corporation agreed to indemnify the Company for certain liabilities and the Company agreed to indemnify Arconic Corporation for certain liabilities. As a result of the Arconic Inc. Separation Transaction, Arconic Corporation holds the building and construction systems businesses previously held by the Company and AAP SAS is a subsidiary of Arconic Corporation; accordingly, Arconic Corporation has agreed to assume and indemnify the Company against potential liabilities associated with the June 13, 2017 fire at the Grenfell Tower in London, U.K., including the following legal proceedings:

Behrens et al. v. Arconic Inc. et al. On June 6, 2019, 247 plaintiffs comprised of survivors and estates of decedents of the Grenfell Tower fire filed a complaint against "Arconic Inc., Alcoa Inc. and Arconic Architectural Products, LLC" (collectively, for purposes of the description of such proceeding, the "Arconic Defendants"), as well as Saint-Gobain Corporation, d/b/a Celotex and Whirlpool Corporation alleging claims under Pennsylvania state law for products liability and wrongful death related to the fire. In particular, the plaintiffs allege that the Arconic Defendants knowingly supplied a dangerous product ("Reynobond PE") for installation on the Grenfell Tower despite knowing that Reynobond PE was unfit for use above a certain height. The case has been removed to the United States District Court for the Eastern District of Pennsylvania and discovery is ongoing on defendants' motion to have the case dismissed in favor of a UK forum (forum non conveniens).

Howard v. Arconic Inc. et al. A purported class action complaint related to the Grenfell Tower fire was filed on August 11, 2017 in the United States District Court for the Western District of Pennsylvania against Arconic Inc. and Klaus Kleinfeld. A related purported class action complaint was filed in the United States District Court for the Western District of Pennsylvania on September 15, 2017, under the caption Sullivan v. Arconic Inc. et al., against Arconic Inc., three former Arconic Inc. executives, several current and former directors, and certain banks Howard and Sullivan were subsequently consolidated and the lead plaintiffs in the consolidated purported class action filed a consolidated amended complaint alleging violations of the federal securities laws and seeking, among other things, unspecified compensatory damages and an award of attorney and expert fees and expenses. After the Court granted the defendants' motion to dismiss in full, the lead plaintiffs filed a second amended complaint, and all defendants have moved to dismiss the second amended complaint.

Raul v. Albaugh, et al. On June 22, 2018, a derivative complaint was filed nominally on behalf of Arconic Inc. by a purported Arconic Inc. stockholder against the then members of Arconic Inc.'s Board of Directors and Klaus Kleinfeld and Ken Giacobbe, naming Arconic Inc. as a nominal defendant, in the United States District Court for the District of Delaware. The complaint raises similar allegations as the consolidated amended complaint and second amended complaint in *Howard*, as well as allegations that the defendants improperly authorized the sale of Reynobond PE for unsafe uses, and asserts claims under federal securities laws and Delaware state law. The case has been stayed until the final resolution of the *Howard* case, the Grenfell Tower Public Inquiry in London, and the investigation by the Police.

There can be no assurances regarding the ultimate resolution of these matters.

Stockholder Demands. Prior to the Arconic Inc. Separation Transaction the Board of Directors also received letters, purportedly sent on behalf of stockholders, reciting allegations similar to those made in the federal court lawsuits and demanding that the Board authorize the Company to initiate litigation against members of management, the Board and others. The Board of Directors appointed a Special Litigation Committee of the Board to review, investigate, and make recommendations to the Board regarding the appropriate course of action with respect to these stockholder demand letters. On May 22, 2019, the Special Litigation Committee, following completion of its investigation into the claims demanded in the demand letters, recommended to the Board that it reject the demands to authorize commencement of litigation. On May 28, 2019, the Board adopted the Special Litigation Committee's findings and recommendations and rejected the demands that it authorize commencement of actions to assert the claims set forth in the demand letters.

Other

In addition to the matters discussed above, various other lawsuits, claims, and proceedings have been or may be instituted or asserted against the Company, including those pertaining to environmental, product liability, safety and health, employment, tax and antitrust matters. While the amounts claimed in these other matters may be substantial, the ultimate liability cannot currently be determined because of the considerable uncertainties that exist. Therefore, it is possible that the Company's liquidity or results of operations in a period could be materially affected by one or more of these other matters. However, based on facts currently available, management believes that the disposition of these other matters that are pending or asserted will not have a material adverse effect, individually or in the aggregate, on the results of operations, financial position or cash flows of the Company.

Commitments

Guarantees

At June 30, 2020, the Company had outstanding bank guarantees related to tax matters, outstanding debt, workers' compensation, environmental obligations, energy contracts, and customs duties, among others. The total amount committed under these guarantees, which expire at various dates between 2020 and 2040, was \$25 at June 30, 2020.

In addition, pursuant to the Separation and Distribution Agreement between the Company and Alcoa Corporation, the Company was required to provide a guarantee for an energy supply agreement at an Alcoa Corporation facility that expires in 2047. This guarantee had a fair value of \$16 and \$9 at June 30, 2020 and December 31, 2019, respectively, and was included in Other noncurrent liabilities and deferred credits on the accompanying Consolidated Balance Sheet. The Company was required to provide a guarantee up to an estimated present value of approximately \$1,167 and \$1,353 at June 30, 2020 and December 31, 2019, respectively. For this guarantee, subject to its provisions, the Company is secondarily liable in the event of a payment default by Alcoa Corporation. The Company currently views the risk of an Alcoa Corporation payment default on its obligations under the contract to be remote.

Letters of Credit

The Company has outstanding letters of credit, primarily related to workers' compensation, environmental obligations, and leasing obligations. The total amount committed under these letters of credit, which automatically renew or expire at various dates, mostly in 2020, was \$66 at June 30, 2020.

Pursuant to the Separation and Distribution Agreements between the Company and Arconic Corporation and between the Company and Alcoa Corporation, the Company was required to retain letters of credit of \$54 (which are included in the above paragraph) that had previously been provided related to the Company, Arconic Corporation, and Alcoa Corporation workers' compensation claims which occurred prior to the respective separation transactions of April 1, 2020 and November 1, 2016. Arconic Corporation and Alcoa Corporation workers' compensation claims and letter of credit fees paid by the Company are being proportionally billed to and are being fully reimbursed by Arconic Corporation and Alcoa Corporation.

Surety Bonds

The Company has outstanding surety bonds, primarily related to tax matters, contract performance, workers' compensation, environmental-related matters, and customs duties. The total amount committed under these surety bonds, which expire at various dates, primarily in 2020, was \$43 at June 30, 2020.

Pursuant to the Separation and Distribution Agreements between the Company and Arconic Corporation and between the Company and Alcoa Corporation, the Company was required to provide surety bonds of \$26 (which are included in the above paragraph) that had previously been provided related to the Company, Arconic Corporation, and Alcoa Corporation workers' compensation claims which occurred prior to the respective separation transactions of April 1, 2020 and November 1, 2016. Arconic Corporation and Alcoa Corporation workers' compensation claims and surety bond fees paid by the Company are being proportionately billed to and are being fully reimbursed by Arconic Corporation and Alcoa Corporation.

S. Subsequent Events

Management evaluated all activity of the Company and concluded that no subsequent events have occurred that would require recognition in the Consolidated Financial Statements or disclosure in the Notes to the Consolidated Financial Statements.

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

(dollars in millions, except per share amounts)

Overview

On April 1, 2020, Howmet Aerospace Inc. (formerly known as Arconic Inc.) ("Howmet" or the "Company") completed the previously announced separation of its business into two independent, publicly-traded companies (the "Arconic Inc. Separation Transaction"). Following the Arconic Inc. Separation Transaction, Arconic Corporation holds the Global Rolled Products businesses (global rolled products, aluminum extrusions, and building and construction systems) previously held by the Company. The Company retained the Engineered Products and Forgings businesses (Engine Products, Engineered Structures, Fastening Systems, and Forged Wheels).

The Company's Board of Directors approved the completion of the Arconic Inc. Separation Transaction on February 5, 2020, which was effected by the distribution (the "Distribution") by the Company of all of the outstanding common stock of Arconic Corporation on April 1, 2020 to the Company's stockholders who held shares as of the close of business on March 19, 2020 (the "Record Date"). In the Distribution, each Company stockholder of record as of the Record Date received one share of Arconic Corporation common stock for every four shares of the Company's common stock held as of the Record Date. The Company did not issue fractional shares of Arconic Corporation common stock in the Distribution. Instead, each stockholder otherwise entitled to a fractional share of Arconic Corporation common stock received cash in lieu of fractional shares.

On March 31, 2020, in connection with the Arconic Inc. Separation Transaction, the Company entered into several agreements with Arconic Corporation that govern the relationship between the Company and Arconic Corporation following the Distribution, including the following: a Separation and Distribution Agreement, Tax Matters Agreement, Employee Matters Agreement, Transition Services Agreement and certain Patent, Know-How, Trade Secret License and Trademark License Agreements.

The following Management's Discussion and Analysis of Financial Condition and Results of Operations excludes the historical results of Arconic Corporation, as the Arconic Inc. Separation Transaction took place on April 1, 2020. The financial results of Arconic Corporation for all periods prior to the Arconic Inc Separation Transaction have been retrospectively reflected in the Statement of Consolidated Operations as discontinued operations and, as such, have been excluded from continuing operations and segment results for all periods presented. In addition, the related assets and liabilities associated with Arconic Corporation in the December 2019 Consolidated Balance Sheet are classified as assets and liabilities of discontinued operations. The cash flows, comprehensive income, and equity related to Arconic Corporation have not been segregated and are included in the Statement of Consolidated Cash Flows, Statement of Consolidated Comprehensive Income (Loss), and Statement of Changes in Consolidated Equity, respectively, for all periods prior to the Arconic Inc. Separation Transaction.

COVID-19

The Company derives approximately 70% of its revenue from products sold to the aerospace end-market. As a result of COVID-19 and its impact on the aerospace industry to-date, the possibility exists that there could be a sustained impact to our operations and our financial results. Since the start of the pandemic, certain original equipment manufacturer ("OEM") customers have suspended manufacturing operations in North America and Europe on a temporary basis. While the pandemic has resulted in temporary closure of a small number of the Company's manufacturing facilities, all of our manufacturing facilities are currently operating. Since the duration of the pandemic is uncertain, the Company is taking a series of actions to address the financial impact, including announcing certain headcount reductions and reducing certain cash outflows, by suspending our dividends and reducing the levels of our capital expenditures to preserve cash and maintain liquidity. For additional information regarding the risks of COVID-19 on our business, see the section entitled "Item 1A. Risk Factors — Our business, results of operations, financial condition and/or cash flows could be materially adversely affected by the effects of widespread public health epidemics/pandemics, including COVID-19, that are beyond our control."

Results of Operations

Earnings Summary:

Sales. Sales were \$1,253 in the second quarter of 2020 compared to \$1,818 in the second quarter of 2019 and \$2,887 in the six months ended June 30, 2020 compared to \$3,570 in the six months ended June 30, 2019. The decrease of \$565, or 31%, in the second quarter of 2020 and \$683, or 19%, in the six months ended June 30, 2020, was primarily due to lower volumes in the commercial aerospace and commercial transportation markets driven by the impacts of COVID-19 and 737 MAX production declines and a decrease in sales of \$65 from the divestiture of the forgings business in the U.K. in December 2019, partially offset by growth in the defense aerospace and industrial gas turbine markets as well as favorable product pricing.

Cost of goods sold (COGS). COGS as a percentage of Sales was 73.7% in the second quarter of 2020 compared to 73.4% in the second quarter of 2019 and was 72.9% in the six months ended June 30, 2020 compared to 73.6% in the six months ended June 30, 2019. The increase in the second quarter of 2020 was primarily due to lower volumes and the impacts of COVID-19

partially offset by intentional product exits, the impairment of energy business assets of \$9 in the second quarter of 2019 and favorable pricing. In the second quarter of 2020, the Company incurred costs related to fires at two plants of \$14. The Company submitted an insurance claim and received a partial settlement of \$10, which was in excess of its \$10 insurance deductible which has already been met. The decrease in the six months ended June 30, 2020 was primarily due to intentional product exits, the impairment of energy business assets of \$9 in the second quarter of 2019, and favorable pricing partially offset by the impacts of COVID-19 and lower volumes in the second quarter. The Company anticipates charges of approximately \$5 to \$15 in the third quarter of 2020, with additional impacts in subsequent quarters as the businesses continue to recover from the fires.

Selling, general administrative, and other expenses (SG&A). SG&A expenses were \$74 in the second quarter of 2020 compared to \$102 in the second quarter of 2019 and \$153 in the six months ended June 30, 2020 compared to \$218 in the six months ended June 30, 2019. The decrease of \$28, or 27%, in the second quarter of 2020 and \$65, or 30%, in the six months ended June 30, 2020, was primarily due to lower costs driven by overhead cost reductions and lower net legal and other advisory costs related to Grenfell Tower primarily due to insurance reimbursements, partially offset by higher costs associated with the Arconic Inc. Separation Transaction.

Research and development expenses (R&D). R&D expenses were \$4 in the second quarter of 2020 compared to \$7 in the second quarter of 2019 and \$8 in the six months ended June 30, 2020 compared to \$16 in the six months ended June 30, 2019. The decrease of \$3, or 43%, in the second quarter of 2020 and \$8, or 50%, in the six months ended June 30, 2020, was primarily due to the consolidation of the Company's primary R&D facility in conjunction with ongoing cost reduction efforts.

Restructuring and other charges. Restructuring and other charges was \$105 in the second quarter of 2020 compared to \$472 in the second quarter of 2019 or a decrease of \$367; and was \$144 in the six months ended June 30, 2020 compared to \$516 in the six months ended June 30, 2019 or a decrease of \$372. The decrease for the six months ended June 30, 2020 was primarily due to a charge for impairment of a long-lived asset group of \$428 and a loss on sale of an additives business of \$12 both of which occurred in the second quarter of 2019 as well as a decrease in severance cost reversals of \$6, a decrease in lease termination costs of \$12 and a decrease in exit costs and other items of \$8; which were partially offset by a net increase related to pension and other postretirement benefit settlement accounting of \$75, an increase in layoff charges of \$8 and charges related to an impairment of assets associated with agreements to sell two businesses in the United Kingdom of \$11 in the six months ended June 30, 2020. See Note £ to the Consolidated Financial Statements for additional detail.

Interest expense. Interest expense was \$144 in the second quarter of 2020 compared to \$86 in the second quarter of 2019 and \$228 in the six months ended June 30, 2020 compared to \$171 in the six months ended June 30, 2019. The increase of \$58, or 67%, in the second quarter of 2020 and an increase of \$57, or 33%, in the six months ended June 30, 2020, were primarily due to a \$59 premium paid on the early redemption of debt.

Other expense (income), net. Other expense (income), net was \$16 in the second quarter of 2020 compared to \$6 in the second quarter of 2019. The increase of \$10, or 167%, in the second quarter of 2020 was primarily due to \$3 favorable change in foreign currency and \$9 of various small items, partially offset by \$2 higher deferred compensation. Other expense (income), net was \$(8) income for the six months ended June 30, 2020 compared to \$18 expense for the six months ended June 20, 2019 The lower expense of \$(26), or (144)% was primarily due to the lower deferred compensation of \$18, favorable foreign currency movements of \$8 and various small items of \$11, partially offset by lower interest income of \$11.

Provision for income taxes. The tax rate including discrete items was 2.3% (benefit on a loss) in the second quarter of 2020 compared to 49.3% (benefit on a loss) in the second quarter of 2019. A discrete tax charge of \$10 was recorded in the second quarter of 2020 compared to a discrete tax benefit of \$37 in the second quarter of 2019. The estimated annual effective tax rate, before discrete items, applied to ordinary income was 36.1% in the second quarter of 2020 compared to 51.8% in the second quarter of 2019. See Note H to the Consolidated Financial Statements.

Income (loss) from Continuing and Discontinued Operations Income (loss) from continuing operations was \$(84), or \$(0.19) per diluted share, in the second quarter of 2020 compared to \$(136), or \$(0.31) per diluted share, in the second quarter of 2019, and \$69, or \$0.15 per diluted share, in the six months ended June 30, 2020, compared to \$(50), or \$(0.11) per diluted share, in the six months ended June 30, 2019. The improvement of \$52 in the second quarter of 2020 and \$119 in the six months ended June 30, 2020, was primarily due to lower Restructuring and other charges, higher Income taxes, higher SG&A expenses primarily related to costs related to the Arconic Inc. Separation Transaction, and higher Other expense, net, partially offset by volume growth, favorable product pricing, net cost savings, lower Interest expense, and lower R&D expenses.

Income (loss) from discontinued operations was \$(12) or \$(0.03) per diluted share for the second quarter of 2020 compared to \$15 or \$0.03 per diluted share for the second quarter of 2019. Income from discontinued operations was \$50 or \$0.11 per diluted share for the second quarter of 2020 compared to \$116 or \$0.25 per diluted share for the second quarter of 2019. See details of discontinued operations in Note B to the Consolidated Financial Statements.

Since the announcement of the Arconic Inc. Separation Transaction in the first quarter of 2019, separation costs recorded in Income from discontinued operations and in Selling, general administrative, and other expenses totaled \$124 as well as debt issuance costs and capital expenditures of \$45 and \$10, respectively.

Segment Information

Segment performance under the Company's management reporting system is evaluated based on a number of factors; however, the primary measure of performance is Segment operating profit. The Company's definition of Segment operating profit is Operating income excluding Special items. Special items include Restructuring and other charges and Impairment of goodwill. Segment operating profit may not be comparable to similarly titled measures of other companies. Differences between segment and consolidated totals are in Corporate. The Company has four segments - Engine Products, Fastening Systems, Engineered Structures and Forged Wheels. (See Note D to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q for a description of each segment).

In the second quarter of 2020, the Company realigned its operations consistent with how the Co-Chief Executive Officers are assessing operating performance and allocating capital in conjunction with the Arconic Inc. Separation Transaction (see Note <u>B</u> to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q). Prior period financial information has been recast to conform to current year presentation.

The Company produces aerospace engine parts and components and aerospace fastening systems for Boeing 737 MAX airplanes. The temporary reduction in the production rate of the 737 MAX airplanes that was announced by Boeing in April 2019 did not have a significant impact on the Company's sales or segment operating profit in 2019. In late December 2019, Boeing announced a temporary suspension of production of the 737 MAX airplanes. This decline in production had a negative impact on sales and segment operating profit in the Engine Products, Fastening Systems and Engineered Structures segments in the second quarter and six months ended June 30, 2020. The Company expects the reduction in 737 MAX production rates to continue to have a negative impact on its financial performance for the remainder of 2020.

Engine Products

| | Second quarter ended | | | | Six months ended | | | |
|--------------------------|----------------------|----|----------|----|------------------|----|-------|--|
| | June 30, Jun | | June 30, | | | | | |
| | 2020 | | 2019 | | 2020 | | 2019 | |
| Third-party sales | \$ 585 | \$ | 835 | \$ | 1,366 | \$ | 1,648 | |
| Inter-segment sales | 1 | | 3 | | 3 | | 8 | |
| Total sales | \$ 586 | \$ | 838 | \$ | 1,369 | \$ | 1,656 | |
| Segment operating profit | 105 | | 163 | | 270 | | 304 | |

Third-party sales for the Engine Products segment decreased \$250, or 30%, in the second quarter of 2020 compared to the second quarter of 2019, primarily due to lower volumes in the commercial aerospace end market driven by COVID-19 and 737 MAX production declines and a decrease in sales of \$33 from the divestiture of the forgings business in the U.K. (December 2019) (see Note Q to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q), partially offset by higher volumes in the industrial gas turbines and defense aerospace end markets as well as price increases.

Third-party sales for the Engine Products segment decreased \$282, or 17% for the six months ended June 30, 2020 compared to the six months ended June 30, 2019, primarily due to lower volumes in the commercial aerospace end market driven by COVID-19 and 737 MAX production declines and a decrease in sales of \$65 from the divestiture of the forgings business in the U.K. (December 2019) (see Note Q to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q), partially offset by higher volumes in the industrial gas turbines and defense aerospace end markets as well as price increases.

Segment operating profit for the Engine Products segment decreased \$58, or 36%, in the second quarter of 2020 compared to the second quarter of 2019, primarily due to lower commercial aerospace volumes, partially offset by cost reductions, price increases, and favorable volumes and mix in the industrial gas turbines and defense aerospace end markets.

Segment operating profit for the Engine Products segment decreased \$34, or 11%, for the six months ended June 30, 2020 compared to the six months ended June 30, 2019, primarily due to lower commercial aerospace volumes, partially offset by cost reductions, price increases and favorable volumes and mix in the industrial gas turbines and defense aerospace end markets.

Fastening Systems

| | | Second quarter ended | | | Six months ended | | | |
|--------------------------|----------|----------------------|----------|------|------------------|--------|----|------|
| | June 30, | | June 30, | | Jur | ıe 30, | | |
| | | 2020 | | 2019 | | 2020 | | 2019 |
| Third-party sales | \$ | 326 | \$ | 399 | \$ | 711 | \$ | 794 |
| Segment operating profit | | 70 | | 99 | | 166 | | 195 |

Third-party sales for the Fastening Systems segment decreased \$73, or 18%, in the second quarter of 2020 compared to the second quarter of 2019, primarily due to lower volumes in the commercial transportation and aerospace end markets driven by COVID-19 and 737 MAX production declines.

Third-party sales for the Fastening Systems segment decreased \$83, or 10%, for the six months ended June 30, 2020 compared to the six months ended June 30, 2019, primarily due to lower volumes in the commercial transportation and aerospace end markets driven by COVID-19 and 737 MAX production declines

Segment operating profit for the Fastening Systems segment decreased \$29, or 29%, in the second quarter of 2020 compared to the second quarter of 2019, primarily due to lower volumes and COVID-19, partially offset by cost reductions.

Segment operating profit for the Fastening Systems segment decreased \$29, or 15%, for the six months ended June 30, 2020 compared to the six months ended June 30, 2019, primarily due to lower volumes and COVID-19, partially offset by cost reductions.

Engineered Structures

| | Second quarter ended June 30, | | Six mon Jur | ths en ie 30, | ded | |
|--------------------------|----------------------------------|----|----------------|------------------|-----|------|
| | 2020 | | 2019 | 2020 | | 2019 |
| Third-party sales | \$ 229 | \$ | 331 | \$ 504 | \$ | 625 |
| Inter-segment sales | 2 | | 3 | 5 | | 6 |
| Total sales | \$ 231 | \$ | 334 | \$ 509 | \$ | 631 |
| Segment operating profit | 19 | | 25 | 47 | | 41 |

Third-party sales for the Engineered Structures segment decreased \$102, or 31%, in the second quarter of 2020 compared to the second quarter of 2019, primarily due to lower volumes in the commercial aerospace end market driven by COVID-19 and 737 MAX production declines, partially offset by price increases.

Third-party sales for the Engineered Structures segment decreased \$121, or 19%, for the six months ended June 30, 2020 compared to the six months ended June 30, 2019, primarily due to lower volumes in the commercial aerospace end market driven by COVID-19 and 737 MAX production declines, partially offset by price increases.

Segment operating profit for the Engineered Structures segment decreased \$6, or 24%, in the second quarter of 2020 compared to the second quarter of 2019, primarily due to lower sales volumes and COVID-19, partially offset by cost reductions, intentional product exits and price increases.

Segment operating profit for the Engineered Structures segment increased \$6, or 15%, for the six months ended June 30, 2020 compared to six months ended June 30, 2019, primarily due to cost reductions, price increases and intentional product exits, partially offset by lower sales volumes.

Forged Wheels

| | Second quarter ended | | | Six months ended | | | |
|--------------------------|----------------------|----|------|------------------|--------|----|------|
| | June 30, | | | Jur | ie 30, | | |
| | 2020 | | 2019 | | 2020 | | 2019 |
| Third-party sales | \$ 113 | \$ | 257 | \$ | 304 | \$ | 511 |
| Segment operating profit | 6 | | 73 | | 56 | | 133 |

Third-party sales for the Forged Wheels segment decreased \$144, or 56%, in the second quarter of 2020 compared to the second quarter of 2019, primarily due to lower volumes in the commercial transportation market driven by market softness and COVID-19, unfavorable foreign currency movements and aluminum prices.

Third-party sales for the Forged Wheels segment decreased \$207, or 41%, for the six months ended June 30, 2020 compared to the six months ended June 30, 2019, primarily due to lower volumes in the commercial transportation market driven by market softness and COVID-19, unfavorable foreign currency movements and aluminum prices.

Segment operating profit for the Forged Wheels segment decreased \$67, or 92%, in the second quarter of 2020 compared to the second quarter of 2019, primarily due to lower volumes, COVID-19 disruptions and unfavorable aluminum prices, partially offset by cost reductions.

Segment operating profit for the Forged Wheels segment deceased \$77, or 58%, for the six months ended June 30, 2020 compared to the six months ended June 30, 2019, primarily due to lower volumes and COVID-19 disruptions, partially offset by cost reductions.

Reconciliation of Total segment operating profit to Income (loss) from continuing operations before income taxes

| | Second quarter ended June 30, | | | | | nths ended ne 30, | | |
|--|-------------------------------|-------|----------|-------|-------|----------------------|-------|-------|
| | | 2020 | | 2019 | _ | 2020 | | 2019 |
| Total segment operating profit | \$ | 200 | \$ | 360 | \$ | 539 | \$ | 673 |
| Unallocated amounts: | | | | | | | | |
| Restructuring and other charges | | (105) | | (472) | (144) | | | (516) |
| Corporate expense | (21) | | (64) | | (63) | | (119) | |
| Consolidated operating income (loss) | \$ | 74 | \$ | (176) | \$ | 332 | \$ | 38 |
| Interest expense | | (144) | 14) (86) | | | (228) | | (171) |
| Other (expense) income, net | | (16) | | (6) | | 8 | | (18) |
| Income (loss) from continuing operations before income taxes | \$ | (86) | \$ | (268) | \$ | 112 | \$ | (151) |

See Restructuring and other charges, Interest expense, and Other (expense) income, net discussions above under Results of Operations for reference.

Environmental Matters

See the Environmental Matters section of Note R to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

Subsequent Events

See Note 5 to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q for subsequent events.

Liquidity and Capital Resources

Operating Activities

Cash used for operations was \$260 in the six months ended June 30, 2020, compared to \$152 in the six months ended June 30, 2019. The increase of \$108, or 71%, was primarily due to lower operating results of \$296, partially offset by lower working capital of \$179. The components of the change in working capital included favorable changes in receivables of \$673 and in taxes, including income taxes of \$55, partially offset by unfavorable changes in accounts payable of \$374, accrued expenses of \$127, prepaid expenses and other current assets of \$29 and inventories of \$19.

Financing Activities

Cash used for financing activities was \$277 in the six months ended June 30, 2020 compared to \$942 in the six months ended June 30, 2019. The increase of \$665, or 71%, was primarily due to a decrease in repurchases of common stock of \$900 and an increase in debt issued of \$2,174, which were partially offset by an increase in long-term debt redemptions of \$1,815, cash distributed to Arconic Corporation at the Arconic Inc. Separation Transaction of \$500, debt issuance costs of \$61 and premiums paid on the redemption of debt of \$59.

The Company maintains a Five-Year Revolving Credit Agreement (the "Credit Agreement") with a syndicate of lenders and issuers named therein. In addition to the Credit Agreement, the Company has a number of other credit agreements. On June 26, 2020, the Company entered into an amendment to its Credit Agreement to modify certain terms which provided relief from its existing financial covenant through December 31, 2021 and reduced total commitment available from \$1,500 to \$1,000. See Note Q to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q for reference.

The Company's costs of borrowing and ability to access the capital markets are affected not only by market conditions but also by the short- and long-term debt ratings assigned to the Company by the major credit rating agencies.

The Company's credit ratings from the three major credit rating agencies are as follows:

| | Long-Term Debt | Short-Term Debt | Outlook | Date of Last Update |
|---------------------|----------------|----------------------------------|----------|---------------------|
| Standard and Poor's | BBB- | A-3 | Negative | April 22, 2020 |
| Moody's | Ba3 | Speculative Grade Liquidity-2 | Negative | April 23, 2020 |
| Fitch | BBB- | В | Stable | April 22, 2020 |

Investing Activities

Cash provided from investing activities was \$127 in the six months ended June 30, 2020 compared to \$171 in the six months ended June 30, 2019. The decrease of \$44, or 26%, was primarily due to decreases in Cash receipts from sold receivables of \$303 and lower sales of fixed-income securities of \$47, which were partially offset by a decrease in capital expenditures of \$203 and an increase in proceeds from the sale of assets and businesses of \$102 primarily related to the sale of a hard extrusions plant in South Korea and an aluminum rolling mill in Brazil in the first quarter of 2020 (both of which related to Arconic Corporation) compared to the sale of a small additives business within the Engineered Structures segment in the first half of 2019.

Critical Accounting Policies and Estimates

Goodwill. Goodwill is not amortized; instead, it is reviewed for impairment annually (in the fourth quarter) or more frequently if indicators of impairment exist or if a decision is made to sell or realign a business. A significant amount of judgment is involved in determining if an indicator of impairment has occurred. Such indicators may include deterioration in general economic conditions, negative developments in equity and credit markets, adverse changes in the markets in which an entity operates, increases in input costs that have a negative effect on earnings and cash flows, or a trend of negative or declining cash flows over multiple periods, among others. The fair value that could be realized in an actual transaction may differ from that used to evaluate the impairment of goodwill.

Goodwill is allocated among and evaluated for impairment at the reporting unit level, which is defined as an operating segment or one level below an operating segment. For the second quarter of 2020, Howmet had four reporting units (Engine Products, Fastening Systems, Engineered Structures and Forged Wheels).

In reviewing goodwill for impairment, an entity has the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not (greater than 50%) that the estimated fair value of a reporting unit is less than its carrying amount. If an entity elects to perform a qualitative assessment and determines that an impairment is more likely than not, the entity is then required to perform the quantitative impairment test (described below); otherwise no further analysis is required. An entity also may elect not to perform the qualitative assessment and, instead, proceed directly to the quantitative impairment test. The ultimate outcome of the goodwill impairment review for a reporting unit should be the same whether an entity chooses to perform the qualitative assessment or proceeds directly to the quantitative impairment test.

Howmet determines annually, based on facts and circumstances, which of its reporting units will be subject to the qualitative assessment. For those reporting units where a qualitative assessment is either not performed or for which the conclusion is that an impairment is more likely than not, a quantitative impairment test will be performed. Howmet's policy is that a quantitative impairment test be performed for each reporting unit at least once during every three-year period.

Under the qualitative assessment, various events and circumstances (or factors) that would affect the estimated fair value of a reporting unit are identified (similar to impairment indicators above). These factors are then classified by the type of impact they would have on the estimated fair value using positive, neutral, and adverse categories based on current business conditions. Additionally, an assessment of the level of impact that a particular factor would have on the estimated fair value is determined using high, medium, and low weighting. Furthermore, management considers the results of the most recent quantitative impairment test completed for a reporting unit and compares the weighted average cost of capital (WACC) between the current and prior years for each reporting unit.

During the first quarter of 2020, Howmet's market capitalization declined significantly compared to the fourth quarter of 2019. Over the same period, the equity value of our peer group companies, and the overall U.S. stock market also declined significantly amid market volatility. In addition, as a result of the COVID-19 pandemic and measures designed to contain the spread, sales globally to customers in the aerospace and commercial transportation industries that are impacted by COVID-19 have been and are expected to be negatively impacted as a result of disruption in demand. As a result of these macroeconomic factors, we performed a qualitative impairment test in the first quarter to evaluate whether it is more likely than not that the fair value of any of our reporting units is less than its carrying value. As a result of this assessment, the Company performed a quantitative impairment test in the first quarter for the Engineered Structures reporting unit and concluded that though the margin between the fair value of the reporting unit and carrying value had declined from approximately 60% to approximately 15%, it was not impaired. Consistent with prior practice, a discounted cash flow model was used to estimate the current fair value of the reporting unit. The significant assumptions and estimates utilized to determine fair value were developed utilizing current market and forecast information reflecting the disruption in demand that has and is expected to negatively impact the Company's sales globally in the aerospace industry.

In the second quarter of 2020, there were no indicators of impairment identified for the Engineered Structures reporting unit as the margin between fair value of the reporting unit and carrying value exceeded 20%. As such, the fair values of all of our reporting units substantially exceeded their carrying values at June 30, 2020. If our actual results or external market factors decline significantly from management's estimates, future goodwill impairment charges may be necessary and could be material.

Recently Adopted and Recently Issued Accounting Guidance

See Note C to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

Forward-Looking Statements

This report contains statements that relate to future events and expectations and as such constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those containing such words as "anticipates," "believes," "could," "estimates," "expects," "forecasts," "goal," "guidance," "intends," "may," "outlook," "plans," "projects," "seeks," "sees," "should," "targets," "will," "would," or other words of similar meaning. All statements that reflect Howmet's expectations, assumptions or projections about the future, other than statements of historical fact, are forward-looking statements, including, without limitation, forecasts and expectations relating to the growth of the aerospace, automotive, commercial transportation and other end markets; statements and guidance regarding future financial results or operating performance; statements regarding future strategic actions; and statements about Howmet's strategies, outlook, business and financial prospects. These statements reflect beliefs and assumptions that are based on Howmet's perception of historical trends, current conditions and expected future developments, as well as other factors Howmet believes are appropriate in the circumstances. Forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties, and changes in circumstances that are difficult to predict, which could cause actual results to differ materially from those indicated by these statements. Such risks and uncertainties include, but are not limited to: (a) the impact of the separation of Arconic Corporation from Howmet on the businesses of Howmet; (b) deterioration in global economic and financial market conditions generally including as a result of pandemic health issues (including COVID-19 and its effects, among other things, on global supply, demand, and distribution disruptions as the COVID-19 outbreak continues and results in an increasingly prolonged period of travel, commercial and/or other similar restrictions and limitations); (c) unfavorable changes in the markets served by Howmet; (d) the inability to achieve the level of revenue growth, cash generation, cost savings, improvement in profitability and margins, fiscal discipline, or strengthening of competitiveness and operations anticipated or targeted; (e) competition from new product offerings, disruptive technologies or other developments; (f) political, economic, and regulatory risks relating to Howmet's global operations, including compliance with U.S. and foreign trade and tax laws, sanctions, embargoes and other regulations; (g) manufacturing difficulties or other issues that impact product performance, quality or safety; (h) Howmet's inability to realize expected benefits, in each case as planned and by targeted completion dates, from acquisitions, divestitures, facility closures, curtailments, expansions, or joint ventures; (i) the impact of potential cyber attacks and information technology or data security breaches; (j) the loss of significant customers or adverse changes in customers' business or financial conditions; (k) adverse changes in discount rates or investment returns on pension assets; (1) the impact of changes in aluminum prices and foreign currency exchange rates on costs and results; (m) the outcome of contingencies, including legal proceedings, government or regulatory investigations, and environmental remediation, which can expose Howmet to substantial costs and liabilities; and (n) the possible impacts and our preparedness to respond to implications of COVID-19; and (o) the other risk factors summarized in Howmet's Form 10-K for the year ended December 31, 2019, Form 10-Q for the quarter ended March 31, 2020, and other reports filed with the U.S. Securities and Exchange Commission, Market projections are subject to the risks discussed above and other risks in the market. Howmet disclaims any intention or obligation to update publicly any forward-looking statements, whether in response to new information, future events, or otherwise, except as required by applicable law.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

Not material.

Item 4. Controls and Procedures.

(a) Evaluation of Disclosure Controls and Procedures

The Company's Co-Chief Executive Officers and Chief Financial Officer have evaluated the Company's disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as of the end of the period covered by this report, and they have concluded that these controls and procedures are effective.

(b) Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting during the second quarter of 2020 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings.

See Note R to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

Item 1. Risk Factors.

Howmet's business, financial condition and results of operations may be impacted by a number of factors. In addition to the factors discussed elsewhere in this report, in Part I, Item 1A of Howmet's Annual Report on Form 10-K for the year ended December 31, 2019, Part II, Item 1A. of Howmet's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, and in other reports filed by Howmet with the Securities and Exchange Commission, the following risks and uncertainties, updated from and in addition to those in the Form 10-K and Form 10-Q, could materially harm its business, financial condition or results of operations, including causing Howmet's actual results to differ materially from those projected in any forward-looking statements. Additional risks and uncertainties not presently known to Howmet or that Howmet currently deems immaterial also may materially adversely affect the Company in future periods.

Our business, results of operations, financial condition and/or cash flows have been and could continue to be materially adversely affected by the effects of widespread public health epidemics/pandemics, including COVID-19, that are beyond our control.

Any outbreaks of contagious diseases, public health epidemics or pandemics and other adverse public health developments in countries where we, our employees, customers and suppliers operate could have a material and adverse effect on our business, results of operations, financial condition and/or cash flows. Specifically, the novel strain of COVID-19, affecting the global community on a pandemic basis, including the United States, Europe and South America, is adversely impacting our operations, and the nature and extent of the impact over time is highly uncertain and beyond our control. The extent to which COVID-19 further affects our operations over time will depend on future developments, which are highly uncertain, including the duration of the outbreak, the continued severity of the virus, resurgences of the virus, and the efficacy and the extent of actions that have been or may be taken to contain or treat its impact. These actions include, but are not limited to, declarations of states of emergency, business closures, manufacturing restrictions and a prolonged period of travel, commercial and/or other similar restrictions and limitations, many of which have been implemented across much of the globe and all of which have negatively affected our business. The longer the period of duration, the greater impact on our businesses and the heightened risk of a continuing material adverse impact on our business, results of operations, financial conditions and/or cash flows, as well as on our business strategies and initiatives. While some of the restrictions and limitations noted above have been and may continue to be relaxed or rolled back, certain actions have been and may continue to be reinstated as the pandemic continues to evolve including as a result of resurgences. The scope and timing of such reinstatements are difficult to predict and may materially affect our operations in the future. We continue to monitor guidelines proposed by federal, state and local governments with respect to the "reopening" measures and measures for continued operation, which may change over time depending on public health, safety and other considerations. We are continuing to focus on the safety and protection of our workforce by continuing to implement additional safety protocols in light of COVID-19.

As a result of COVID-19 and the measures designed to contain its spread, our sales globally, including to customers in the aerospace and commercial transportation industries that are impacted by COVID-19, have been and are expected to be negatively impacted as a result of disruption in demand, which has had and over time could continue to have a material adverse effect on our business, results of operations, financial condition and/or cash flows. The COVID-19 pandemic has already subjected our operations, financial performance and financial condition to a number of risks, including, but not limited to those discussed below:

- Business and operations risks: We continue to monitor the evolving situation relating to COVID-19 to determine whether we will need to significantly modify our business practices or take actions as may be required by government authorities or that we determine are in the best interests of our employees, customers, partners, suppliers and shareholders. We have had a number of smaller manufacturing locations that have experienced periods of shutdowns. Future shutdowns will be dependent on facts and circumstances as they unfold, including based on the restrictions and limitations noted above. Additional shutdowns, while not required by governmental authorities, may be necessary to match our production of materials to the reduced demand of our customers. In addition, given these factors and potential further disruptions, we may be unable to perform fully on our contracts and our costs may increase as a result of the COVID-19 outbreak. We may also face challenges in restoring our production levels if and when COVID-19 abates, including as a result of government-imposed or other limitations that prevent the return of all or a portion of our workforce and/or continue to disrupt demand and limit the capabilities of our suppliers. We continue to monitor the situation, to assess further possible implications to our business, employees, customers and supply chain, and to take actions in an effort to mitigate adverse consequences. As a result of COVID-19 and its potential impact on the aerospace industry, the possibility exists that a sustained impact to our operations, financial results and market capitalization may require material impairments of our assets including, but not limited to, goodwill, intangible assets, long-lived assets, and right-of-use assets. While we have already commenced plans to reduce costs, including certain headcount reductions, reductions in certain cash outflows, suspension of our common stock dividend and reductions in the levels of our capital expenditures, we cannot at this time predict the longer term impact of the COVID-19 pandemic, but it could continue to have a material adverse effect on our business, results of operations, financial condition and/or cash flows.
- Customer and supplier risks: We have limited visibility into future demand given the disruptions resulting from COVID-19. The sharp decrease in air travel resulting from the COVID-19 outbreak and the measures governments and private organizations worldwide have implemented in an attempt to contain its spread is adversely affecting, and will likely continue to adversely affect, airlines and airframers and their respective demand for our customers' products and services. Aircraft manufacturers are reducing production rates due to fewer expected aircraft deliveries and, as a result, demand for products in the original equipment manufacturer market has significantly decreased. Several of our aerospace and commercial transportation customers have temporarily suspended operations at certain production sites, reduced operations and production rates and/or taken cost-cutting actions, the duration and extent of which we cannot predict, including, but not limited to, General Electric Company, The Boeing Company, and Raytheon Technologies Corporation, which represented approximately 12%, 9% and 9%, respectively, of our third party sales for the six months ended June 30, 2020. Due to these cost-cutting measures and others, we are experiencing, and expect to continue experiencing, lower demand and volume for products and services, customer requests for potential payment deferrals, pricing concessions or other contract modifications, delays of deliveries and the achievement of other billing milestones. COVID-19 may also limit the ability of our counterparties generally to perform their obligations to us, including, but not limited to, our customers' ability to make timely payments to us. These trends may lead to charges, impairments and other adverse financial impacts over time, as noted above, as we have historically depended upon the strength of these industries, particularly the aerospace industry. In addition, the ongoing COVID-19 pandemic may negatively impact customer contract negotiations, including the ability to negotiate acceptable terms in contract renewal negotiations and our ability to obtain new customers. Similarly, our suppliers may not have the materials, capacity, or capability to manufacture our products according to our schedule and specifications. To date, we have not experienced significant disruption to our supply chain. If our suppliers' operations were to be impacted, we may need to seek alternate suppliers, which may be more expensive, may not be available or may result in delays in shipments to us and subsequently to our customers, each of which would affect our business, results of operations, financial condition and/or cash flows. The duration of the current disruptions to our customers and to our supply chain, and related financial impact to us, cannot be estimated at this time. Should such disruption continue for an extended period of time, the impact will have a material adverse effect on our business, results of operations, financial condition and/or cash flows. Ultimately, the demand for our products is, in turn, driven by demand for transportation and for people to travel within and between various countries around the world. Should the COVID-19 outbreak cause a long term deterioration in demand for transportation or travel due to fear or anxiety related to health concerns, governmental restriction, economic hardships, or increased use of electronic communication technologies embraced during the COVID-19 related shutdowns, the effects of the COVID-19 virus on our business may extend well beyond the COVID-19 current health crisis and immediate related governmental actions.
- Market risks: The current financial market dynamics and volatility pose heightened risks to our liquidity. For example, dramatically lowered interest rates and lower expected asset valuations and returns can materially impact the calculation of long-term liabilities such as our pension. In addition, extreme volatility in financial and commodities markets has had and may continue to have adverse impacts on other asset valuations such as the value of the investment portfolios supporting our pension. Our long-term liabilities are sensitive to numerous factors and assumptions that can move in offsetting directions and should be considered as of the time of a relevant measurement event.
- Liquidity and credit risks: We currently have the ability to borrow up to \$1.0 billion under our revolving credit agreement, which was amended in June 2020. A prolonged period of generating lower financial results and cash from

operations could adversely affect our ability to draw under such amended revolving credit agreement, could also adversely affect our financial condition, including in respect of satisfying both required and voluntary pension funding requirements, and could otherwise negatively affect our ability to achieve our strategic objectives. These factors could also adversely affect our ability to maintain compliance with the debt covenants under our amended revolving credit agreement, including as a result of potential increases in net debt or future reductions in EBITDA. There can also be no assurance that we will not face credit rating downgrades as a result of weaker than anticipated performance of our businesses or other factors including overall market conditions. Future downgrades could further adversely affect our cost of funds and related margins, liquidity, competitive position and access to capital markets, and a significant downgrade could have an adverse commercial impact on our businesses. Conditions in the financial and credit markets may also limit the availability of funding or increase the cost of funding (including for receivables securitization or supply chain finance programs used to finance working capital) or our ability to refinance certain of our indebtedness, which could adversely affect our business, financial position, results of operations and/or cash flows. Although the U.S. federal and other governments have announced a number of funding programs to support businesses, our ability or willingness to access funding under such programs may be limited by regulations or other guidance, including eligibility criteria, or by further change or uncertainty related to the terms of these programs.

The COVID-19 pandemic may also exacerbate other risks disclosed in Item 1A. Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2019 and Part II, Item 1A. Risk Factors in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, including, but not limited to, risks related to global economic conditions, competition, loss of customers, costs of supplies, manufacturing difficulties and disruptions, investment returns, our credit profile, our credit ratings and interest rates. We expect that the longer the period of disruption from COVID-19 continues, the more material the adverse impacts will be on our business operations, financial performance, results of operations and/or cash flows. In addition, the COVID-19 pandemic may also affect our operating and financial results in a manner that is not presently known to us or that we currently do not expect to present significant risks to our business, results of operations, financial conditions and/or cash flows.

Item 6. Exhibits.

| <u>10.1</u> | Employment Letter Agreement between Howmet Aerospace Inc. and John C. Plant, dated as of June 9, 2020, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 12, 2020. |
|-------------|--|
| 10.2 | Amendment No. 4, dated as of June 26, 2020, to the Five-Year Revolving Credit Agreement dated as of July 25, 2014, among Howmet Aerospace Inc., the lenders and issuers named therein, Citibank, N.A., as administrative agent, and JPMorgan Chase Bank, N.A., as syndication agent, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 29, 2020. |
| <u>31</u> | Certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| <u>32</u> | Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 101.INS | XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document. |
| 101.SCH | XBRL Taxonomy Extension Schema Document. |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase Document. |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase Document. |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase Document. |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase Document. |
| 104. | Cover Page Interactive Data File - the cover page from this Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, formatted in Inline XBRL (included within the Exhibit 101 attachments). |

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

| | Howmet Aerospace Inc. |
|----------------|--------------------------------|
| | |
| August 7, 2020 | /s/ Ken Giacobbe |
| Date | Ken Giacobbe |
| | Executive Vice President and |
| | Chief Financial Officer |
| | (Principal Financial Officer) |
| | |
| August 7, 2020 | /s/ Paul Myron |
| Date | Paul Myron |
| | Vice President and Controller |
| | (Principal Accounting Officer) |

Certifications

I, John C. Plant, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Howmet Aerospace Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2020

/s/ John C. Plant

John C. Plant

Chairman and Co-Chief Executive Officer

I, Tolga Oal, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Howmet Aerospace Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2020

/s/ Tolga Oal

Tolga Oal

Chief Executive Officer

I, Ken Giacobbe, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Howmet Aerospace Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2020

/s/ Ken Giacobbe

Ken Giacobbe

Executive Vice President and Chief Financial Officer

Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), each of the undersigned officers of Howmet Aerospace Inc., a Delaware corporation (the "Company"), does hereby certify that:

The Quarterly Report on Form 10-Q for the period ended June 30, 2020 (the "Form 10-Q") of the Company fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

| Dated: | August 7, 2020 | /s/ John C. Plant |
|--------|----------------|--|
| | | John C. Plant |
| | | Executive Chairman and Co-Chief Executive Officer |
| | | |
| Dated: | August 7, 2020 | /s/ Tolga Oal |
| | | Tolga Oal |
| | | Co-Chief Executive Officer |
| | | |
| Dated: | August 7, 2020 | /s/ Ken Giacobbe |
| | | Ken Giacobbe |
| | | Executive Vice President and Chief Financial Officer |

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished to the Securities and Exchange Commission as an exhibit to the Form 10-Q and shall not be considered filed as part of the Form 10-Q.