

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

FORM 10-Q

(Mark One)

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

For the Quarterly Period Ended September 30, 2019

OR

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

Commission File Number 1-3610

ARCONIC INC.

(Exact name of registrant as specified in its charter)

Delaware

(State of incorporation)

25-0317820

(I.R.S. Employer Identification No.)

201 Isabella Street, Suite 200, Pittsburgh, Pennsylvania

(Address of principal executive offices)

15212-5872

(Zip code)

Investor Relations 412-553-1950

Office of the Secretary 412-553-1940

(Registrant's telephone number including area code)

(Former name, former address and former fiscal year, if changed since last report)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$1.00 per share	ARNC	New York Stock Exchange
\$3.75 Cumulative Preferred Stock, par value \$100 per share	ARNC PR	NYSE American

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

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

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

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

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

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

As of November 1, 2019, there were 432,941,063 shares of common stock, par value \$1.00 per share, of the registrant outstanding.

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements.

Arconic and subsidiaries
Statement of Consolidated Operations (unaudited)
(in millions, except per-share amounts)

	Third quarter ended		Nine months ended	
	September 30,		September 30,	
	2019	2018	2019	2018
Sales (C)	\$ 3,559	\$ 3,524	\$ 10,791	\$ 10,542
Cost of goods sold (exclusive of expenses below)	2,800	2,881	8,557	8,552
Selling, general administrative, and other expenses	167	134	523	464
Research and development expenses	16	25	55	77
Provision for depreciation and amortization	131	141	407	427
Restructuring and other charges (D)	119	(2)	630	20
Operating income	326	345	619	1,002
Interest expense	86	88	256	291
Other expense, net (E)	31	8	92	69
Income before income taxes	209	249	271	642
Provision for income taxes (G)	114	88	110	218
Net income	\$ 95	\$ 161	\$ 161	\$ 424
Amounts Attributable to Arconic Common Shareholders (I):				
Net income	\$ 94	\$ 160	\$ 159	\$ 422
Earnings per share - basic	\$ 0.22	\$ 0.33	\$ 0.35	\$ 0.87
Earnings per share - diluted	\$ 0.21	\$ 0.32	\$ 0.35	\$ 0.86
Average Shares Outstanding (I):				
Average shares outstanding - basic	436	483	451	483
Average shares outstanding - diluted	457	502	455	503

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

Arconic and subsidiaries
Statement of Consolidated Comprehensive Income (unaudited)
(in millions)

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Net income	\$ 95	\$ 161	\$ 161	\$ 424
Other comprehensive (loss) income, net of tax (L):				
Change in unrecognized net actuarial loss and prior service cost/benefit related to pension and other postretirement benefits	26	37	89	209
Foreign currency translation adjustments	(87)	(16)	(91)	(95)
Net change in unrealized gains on available-for-sale securities	1	1	4	(1)
Net change in unrecognized gains/losses on cash flow hedges	1	(10)	(2)	(13)
Total Other comprehensive (loss) income, net of tax	(59)	12	—	100
Comprehensive income	\$ 36	\$ 173	\$ 161	\$ 524

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

Arconic and subsidiaries
Consolidated Balance Sheet (unaudited)
(in millions)

	September 30, 2019	December 31, 2018
Assets		
Current assets:		
Cash and cash equivalents	\$ 1,321	\$ 2,277
Receivables from customers, less allowances of \$4 in 2019 and 2018 (K)	1,116	1,047
Other receivables (K)	657	451
Inventories (L)	2,555	2,492
Prepaid expenses and other current assets	259	314
Total current assets	5,908	6,581
Properties, plants, and equipment, net (M)	5,377	5,704
Goodwill (C)	4,460	4,500
Deferred income taxes	466	573
Intangibles, net (D and M)	668	919
Other noncurrent assets (N)	605	416
Total assets	\$ 17,484	\$ 18,693
Liabilities		
Current liabilities:		
Accounts payable, trade	\$ 1,988	\$ 2,129
Accrued compensation and retirement costs	392	370
Taxes, including income taxes	115	118
Accrued interest payable	97	113
Other current liabilities (N)	434	356
Short-term debt (O)	1,434	434
Total current liabilities	4,460	3,520
Long-term debt, less amount due within one year (O and P)	4,905	5,896
Accrued pension benefits (E)	2,001	2,230
Accrued other postretirement benefits (E)	629	723
Other noncurrent liabilities and deferred credits (B and N)	779	739
Total liabilities	12,774	13,108
Contingencies and commitments (R)		
Equity		
Arconic shareholders' equity:		
Preferred stock	55	55
Common stock (H)	434	483
Additional capital (H)	7,314	8,319
Accumulated deficit	(179)	(358)
Accumulated other comprehensive loss (J)	(2,928)	(2,926)
Total Arconic shareholders' equity	4,696	5,573
Noncontrolling interests	14	12
Total equity	4,710	5,585
Total liabilities and equity	\$ 17,484	\$ 18,693

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

Arconic and subsidiaries
Statement of Consolidated Cash Flows (unaudited)
(in millions)

	Nine months ended September 30,	
	2019	2018
Operating activities		
Net income	\$ 161	\$ 424
Adjustments to reconcile net income to cash used for operations:		
Depreciation and amortization	407	427
Deferred income taxes	(36)	95
Restructuring and other charges	630	20
Net loss from investing activities—asset sales	6	7
Net periodic pension benefit cost (E)	87	100
Stock-based compensation	44	43
Other	15	61
Changes in assets and liabilities, excluding effects of acquisitions, divestitures, and foreign currency translation adjustments:		
(Increase) in receivables	(957)	(1,020)
(Increase) in inventories	(92)	(184)
Decrease (increase) in prepaid expenses and other current assets	17	(3)
(Decrease) increase in accounts payable, trade	(119)	257
(Decrease) in accrued expenses	(90)	(96)
Increase in taxes, including income taxes	92	63
Pension contributions	(217)	(288)
(Increase) in noncurrent assets	(12)	(33)
(Decrease) in noncurrent liabilities	(36)	(82)
Cash used for operations	(100)	(209)
Financing Activities		
Net change in short-term borrowings (original maturities of three months or less)	—	3
Additions to debt (original maturities greater than three months)	300	450
Payments on debt (original maturities greater than three months)	(303)	(952)
Premiums paid on early redemption of debt	—	(17)
Proceeds from exercise of employee stock options	19	15
Dividends paid to shareholders	(48)	(89)
Repurchase of common stock (H)	(1,100)	—
Other	(12)	(19)
Cash used for financing activities	(1,144)	(609)
Investing Activities		
Capital expenditures	(415)	(497)
Proceeds from the sale of assets and businesses (Q)	27	7
Sales of investments	47	9
Cash receipts from sold receivables (K)	630	693
Other	(1)	(1)
Cash provided from investing activities	288	211
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(2)	(4)
Net change in cash, cash equivalents and restricted cash	(958)	(611)
Cash, cash equivalents and restricted cash at beginning of year	2,282	2,153
Cash, cash equivalents and restricted cash at end of period	\$ 1,324	\$ 1,542

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

Arconic and subsidiaries
Statement of Changes in Consolidated Equity (unaudited)
(in millions, except per-share amounts)

	Arconic Shareholders						Noncontrolling interests	Total Equity
	Preferred stock	Common stock	Additional capital	Accumulated deficit	Accumulated other comprehensive loss			
Balance at June 30, 2018	\$ 55	\$ 483	\$ 8,295	\$ (1,073)	\$ (2,556)	\$ 14	\$ 5,218	
Net income	—	—	—	161	—	—	161	
Other comprehensive income (L)	—	—	—	—	12	—	12	
Cash dividends declared:								
Preferred-Class A @ \$0.9375 per share	—	—	—	(1)	—	—	(1)	
Common @ \$0.06 per share	—	—	—	(30)	—	—	(30)	
Stock-based compensation	—	—	14	—	—	—	14	
Common stock issued: compensation plans	—	—	1	—	—	—	1	
Balance at September 30, 2018	\$ 55	\$ 483	\$ 8,310	\$ (943)	\$ (2,544)	\$ 14	\$ 5,375	

	Arconic Shareholders						Noncontrolling interests	Total Equity
	Preferred stock	Common stock	Additional capital	Accumulated deficit	Accumulated other comprehensive loss			
Balance at June 30, 2019	\$ 55	\$ 440	\$ 7,484	\$ (256)	\$ (2,869)	\$ 12	\$ 4,866	
Net income	—	—	—	95	—	—	95	
Other comprehensive loss (L)	—	—	—	—	(59)	—	(59)	
Cash dividends declared:								
Preferred-Class A @ \$0.9375 per share	—	—	—	(1)	—	—	(1)	
Common @ \$0.04 per share	—	—	—	(17)	—	—	(17)	
Repurchase and retirement of common stock (H)	—	(7)	(193)	—	—	—	(200)	
Stock-based compensation	—	—	16	—	—	—	16	
Common stock issued: compensation plans	—	1	5	—	—	—	6	
Other	—	—	2	—	—	2	4	
Balance at September 30, 2019	\$ 55	\$ 434	\$ 7,314	\$ (179)	\$ (2,928)	\$ 14	\$ 4,710	

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

Arconic Shareholders							
	Preferred stock	Common stock	Additional capital	Accumulated deficit	Accumulated other comprehensive loss	Noncontrolling interests	Total Equity
Balance at December 31, 2017	\$ 55	\$ 481	\$ 8,266	\$ (1,248)	\$ (2,644)	\$ 14	\$ 4,924
Net income	—	—	—	424	—	—	424
Other comprehensive income (J)	—	—	—	—	100	—	100
Cash dividends declared:							
Preferred-Class A @ \$2.8125 per share	—	—	—	(2)	—	—	(2)
Common @ \$0.24 per share	—	—	—	(117)	—	—	(117)
Stock-based compensation	—	—	43	—	—	—	43
Common stock issued: compensation plans	—	2	1	—	—	—	3
Balance at September 30, 2018	\$ 55	\$ 483	\$ 8,310	\$ (943)	\$ (2,544)	\$ 14	\$ 5,375

Arconic Shareholders							
	Preferred stock	Common stock	Additional capital	Accumulated deficit	Accumulated other comprehensive loss	Noncontrolling interests	Total Equity
Balance at December 31, 2018	\$ 55	\$ 483	\$ 8,319	\$ (358)	\$ (2,926)	\$ 12	\$ 5,585
Adoption of accounting standards (B)	—	—	—	75	(2)	—	73
Net income	—	—	—	161	—	—	161
Other comprehensive income (I)	—	—	—	—	—	—	—
Cash dividends declared:							
Preferred-Class A @ \$2.8125 per share	—	—	—	(2)	—	—	(2)
Common @ \$0.12 per share	—	—	—	(55)	—	—	(55)
Repurchase and retirement of common stock (H)	—	(52)	(1,048)	—	—	—	(1,100)
Stock-based compensation	—	—	41	—	—	—	41
Common stock issued: compensation plans	—	3	—	—	—	—	3
Other	—	—	2	—	—	2	4
Balance at September 30, 2019	\$ 55	\$ 434	\$ 7,314	\$ (179)	\$ (2,928)	\$ 14	\$ 4,710

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

Arconic and subsidiaries
Notes to the Consolidated Financial Statements (unaudited)
(dollars in millions, except per-share amounts)

A. Basis of Presentation

The interim Consolidated Financial Statements of Arconic Inc. and its subsidiaries (“Arconic” 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 2018 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 Arconic’s Annual Report on Form 10-K for the year ended December 31, 2018, 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 [C](#)).

B. Recently Adopted and Recently Issued Accounting Guidance

Adopted

In February 2016, the Financial Accounting Standards Board (FASB) issued changes to the accounting and presentation of leases. These changes require lessees to recognize a right-of-use asset and lease liability on the balance sheet, initially measured at the present value of the future lease payments for all operating leases with a term greater than 12 months.

These changes became effective for Arconic on January 1, 2019 and have been applied using the modified retrospective approach as of the date of adoption, under which leases existing at, or entered into after, January 1, 2019 were required to be recognized and measured. Prior period amounts have not been adjusted and continue to be reflected in accordance with the Company’s historical accounting. The Company elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed the Company to carry forward the historical lease classification. The Company also elected to separate lease components from non-lease components for all classes of assets.

The adoption of this new standard resulted in the Company recording operating lease right-of-use assets and lease liabilities of approximately \$320 on the Consolidated Balance Sheet as of January 1, 2019. Also, the Company reclassified cash proceeds of \$119 from Other noncurrent liabilities and deferred credits, assets of \$24 from Properties, plants, and equipment, net, and deferred tax assets of \$22 from Other noncurrent assets to Accumulated deficit reflecting the cumulative effect of an accounting change related to the sale-leaseback of the Texarkana, Texas cast house (see Note [Q](#)). The adoption of the standard had no impact on the Statement of Consolidated Operations or Statement of Consolidated Cash Flows.

In August 2017, the FASB issued guidance that made more financial and nonfinancial hedging strategies eligible for hedge accounting. It also amended the presentation and disclosure requirements and changed how companies assess effectiveness. It is intended to more closely align hedge accounting with companies’ risk management strategies, simplify the application of hedge accounting, and increase transparency as to the scope and results of hedging programs. These changes became effective for Arconic on January 1, 2019. For cash flow hedges, Arconic recorded a cumulative effect adjustment of \$2 related to eliminating the separate measurement of ineffectiveness by decreasing Accumulated other comprehensive loss and increasing Accumulated deficit on the accompanying Consolidated Balance Sheet. The amendments to presentation and disclosure are required prospectively. Arconic has determined that under the new accounting guidance it is able to more broadly use cash flow hedge accounting for its variable priced inventory purchases and customer sales.

In March 2019, the Securities and Exchange Commission (SEC) issued guidance to modernize and simplify certain disclosure requirements in a manner that reduces the costs and burdens on preparers while continuing to provide all material information to investors. This guidance became effective on May 2, 2019 and has been applied to filings thereafter. The adoption of this guidance did not have a material impact on the Notes to Consolidated Financial Statements.

Issued

In June 2016, the FASB added a new impairment model (known as the current expected credit loss (CECL) model) that is based on expected losses rather than incurred losses. Under the new guidance, an entity 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. The CECL model does not have a minimum threshold for recognition of impairment losses and entities will need to measure expected credit losses on assets that have a low risk of loss. These changes become effective for Arconic on January 1, 2020. Management has determined that the adoption of this guidance will not have a material impact on the Consolidated Financial Statements.

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 Arconic's annual report for the year ending December 31, 2020, with early adoption permitted. Management has determined that the adoption of this guidance will not have a material impact on the Consolidated Financial Statements.

C. Segment Information

Arconic is a global leader in lightweight metals engineering and manufacturing. Arconic's innovative, multi-material products, which include aluminum, titanium, and nickel, are used worldwide in aerospace, automotive, commercial transportation, building and construction, industrial applications, defense, and packaging. Arconic has two operating and reportable segments, which are organized by product on a worldwide basis: Engineered Products and Forgings (EP&F) (formerly named the Engineered Products and Solutions segment) and Global Rolled Products (GRP) (see further details below). Segment performance under Arconic's management reporting system is evaluated based on a number of factors; however, the primary measure of performance is Segment operating profit. Arconic's definition of Segment operating profit is Operating income excluding Special items. Special items include Restructuring and other charges. Segment operating profit includes the impact of LIFO inventory accounting, metal price lag, intersegment profit eliminations, and derivative activities. Segment operating profit may not be comparable to similarly titled measures of other companies. Differences between segment totals and consolidated Arconic are in Corporate.

In the third quarter of 2019, the Company realigned its operations by eliminating its Transportation and Construction Solutions (TCS) segment and transferring the Forged Wheels business to its EP&F segment and the Building and Construction Systems (BCS) business to its GRP segment, consistent with how the Chief Executive Officer is assessing operating performance and allocating capital in conjunction with the planned separation of the Company (see Note S). The Latin American extrusions business, which was formerly part of the Company's TCS segment until its sale in April of 2018 (see Note Q), was moved to Corporate. In the first quarter of 2019, management transferred its aluminum extrusions operations (Aluminum Extrusions) from its Engineered Structures business unit within the EP&F segment to the GRP segment, based on synergies with GRP including similar customer base, technologies, and manufacturing capabilities. Prior period financial information has been recast to conform to current year presentation.

As a result of the elimination of the TCS segment in the third quarter of 2019 as noted above, the Company transferred its existing Forged Wheels goodwill of \$7 and its existing BCS goodwill of \$68 from the TCS segment to the EP&F segment and GRP segment, respectively. Both Forged Wheels and BCS will continue to be reporting units for purposes of evaluating goodwill for impairment. In the second quarter of 2019, management transferred its castings operations from the Engineered Structures business unit to the Engine Products business unit within the EP&F segment based on process expertise for investment castings that existed within Engine Products. As a result, goodwill of \$105 was reallocated from the Engineered Structures reporting unit to the Engine Products reporting unit and these reporting units were evaluated for impairment during the second quarter of 2019. The estimated fair value of each of these reporting units substantially exceeded their carrying value; thus, there was no impairment. Also in the second quarter of 2019, as a result of the decline in the forecasted financial performance and related impairment of long-lived assets of the Disks asset group within the Engine Products business unit (see Note M), an additional evaluation of the Engine Products reporting unit goodwill was performed. The estimated fair value of the reporting unit was substantially in excess of its carrying value; thus, there was no impairment of goodwill. As a result of the reorganization of Aluminum Extrusions in the first quarter of 2019 as noted above, management assessed and concluded that the remaining Engineered Structures business unit and the Aluminum Extrusions business unit represent reporting units for purposes of evaluating goodwill for impairment. Goodwill of \$110 was reallocated from the Engineered Structures reporting unit to the Aluminum Extrusions reporting unit and these reporting units were evaluated for impairment during the first quarter of 2019. The estimated fair value of each of these reporting units substantially exceeded their carrying value; thus, there was no goodwill impairment.

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

	Engineered Products and Forgings	Global Rolled Products	Total Segment
Third quarter ended September 30, 2019			
Sales:			
Third-party sales	\$ 1,794	\$ 1,763	\$ 3,557
Intersegment sales	—	41	41
Total sales	<u>\$ 1,794</u>	<u>\$ 1,804</u>	<u>\$ 3,598</u>
Profit and loss:			
Segment operating profit	\$ 363	\$ 161	\$ 524
Restructuring and other charges	45	62	107
Provision for depreciation and amortization	65	57	122
Third quarter ended September 30, 2018			
Sales:			
Third-party sales	\$ 1,683	\$ 1,839	\$ 3,522
Intersegment sales	—	44	44
Total sales	<u>\$ 1,683</u>	<u>\$ 1,883</u>	<u>\$ 3,566</u>
Profit and loss:			
Segment operating profit	\$ 284	\$ 107	\$ 391
Restructuring and other charges	15	2	17
Provision for depreciation and amortization	73	61	134
Nine months ended September 30, 2019			
Sales:			
Third-party sales	\$ 5,372	\$ 5,415	\$ 10,787
Intersegment sales	—	142	142
Total sales	<u>\$ 5,372</u>	<u>\$ 5,557</u>	<u>\$ 10,929</u>
Profit and loss:			
Segment operating profit	\$ 1,036	\$ 475	\$ 1,511
Restructuring and other charges	506	99	605
Provision for depreciation and amortization	206	175	381
Nine months ended September 30, 2018			
Sales:			
Third-party sales	\$ 5,083	\$ 5,468	\$ 10,551
Intersegment sales	—	161	161
Total sales	<u>\$ 5,083</u>	<u>\$ 5,629</u>	<u>\$ 10,712</u>
Profit and loss:			
Segment operating profit	\$ 837	\$ 388	\$ 1,225
Restructuring and other charges	24	3	27
Provision for depreciation and amortization	217	185	402

The following table reconciles Total segment operating profit to Consolidated income before income taxes:

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Total segment operating profit	\$ 524	\$ 391	\$ 1,511	\$ 1,225
Unallocated amounts:				
Restructuring and other charges	(119)	2	(630)	(20)
Corporate expense	(79)	(48)	(262)	(203)
Consolidated operating income	\$ 326	\$ 345	\$ 619	\$ 1,002
Interest expense	(86)	(88)	(256)	(291)
Other expense, net	(31)	(8)	(92)	(69)
Consolidated income before income taxes	\$ 209	\$ 249	\$ 271	\$ 642

The total assets of Arconic's reportable segment were as follows:

	September 30, 2019	December 31, 2018
Engineered Products and Forgings	\$ 10,180	\$ 10,384
Global Rolled Products	5,101	4,955
Total segment assets	\$ 15,281	\$ 15,339

Segment assets at September 30, 2019 included operating lease right-of-use assets (see Notes [B](#) and [N](#)). Segment assets for the EP&F segment at September 30, 2019 were impacted by a long-lived asset impairment charge of \$428 recorded in the second quarter of 2019 (see Note [M](#)).

The following table reconciles Total segment assets to Consolidated assets:

	September 30, 2019	December 31, 2018
Total segment assets	\$ 15,281	\$ 15,339
Unallocated amounts:		
Cash and cash equivalents	1,321	2,277
Deferred income taxes	466	573
Corporate fixed assets, net	320	334
Fair value of derivative contracts	11	37
Other	85	133
Consolidated assets	\$ 17,484	\$ 18,693

The following table disaggregates revenue by major end market served. Differences between segment totals and consolidated Arconic are in Corporate. For the nine months ended September 30, 2018, Corporate included \$38 of costs related to settlements of certain customer claims primarily related to product introductions.

	Engineered Products and Forgings	Global Rolled Products	Total Segment
Third quarter ended September 30, 2019			
Aerospace	\$ 1,290	\$ 300	\$ 1,590
Transportation	319	587	906
Building and construction	—	329	329
Industrial and Other	185	547	732
Total end-market revenue	<u>\$ 1,794</u>	<u>\$ 1,763</u>	<u>\$ 3,557</u>
Third quarter ended September 30, 2018			
Aerospace	\$ 1,190	\$ 274	\$ 1,464
Transportation	319	654	973
Building and construction	—	352	352
Industrial and Other	174	559	733
Total end-market revenue	<u>\$ 1,683</u>	<u>\$ 1,839</u>	<u>\$ 3,522</u>
Nine months ended September 30, 2019			
Aerospace	\$ 3,823	\$ 931	\$ 4,754
Transportation	1,004	1,868	2,872
Building and construction	—	1,004	1,004
Industrial and Other	545	1,612	2,157
Total end-market revenue	<u>\$ 5,372</u>	<u>\$ 5,415</u>	<u>\$ 10,787</u>
Nine months ended September 30, 2018			
Aerospace	\$ 3,519	\$ 802	\$ 4,321
Transportation	981	1,914	2,895
Building and construction	—	1,033	1,033
Industrial and Other	583	1,719	2,302
Total end-market revenue	<u>\$ 5,083</u>	<u>\$ 5,468</u>	<u>\$ 10,551</u>

D. Restructuring and Other Charges

In the third quarter of 2019, Arconic recorded Restructuring and other charges of \$119 (\$114 after-tax), which included: a charge of \$102 (\$102 after-tax) for impairment of assets associated with agreements to sell the Company's Brazilian rolling mill operations (\$59) and U.K. forgings business (\$43) (see Note Q); a charge of \$8 (\$6 after-tax) for impairment of properties, plants, and equipment related to the Company's primary research and development facility; a charge of \$4 (\$3 after-tax) for pension plan settlement accounting; a charge of \$4 (\$3 after-tax) for accelerated depreciation; a charge of \$2 (\$1 after-tax) for layoff costs associated with the separation of 56 employees in the GRP segment; and a benefit of \$1 (\$1 after-tax) for the reversal of layoff reserves related to prior periods.

In the nine months ended September 30, 2019, Arconic recorded Restructuring and other charges of \$630 (\$521 after-tax), which included: a charge of \$428 (\$345 after-tax) for impairment of the Disks long-lived asset group (see Note M); a charge of \$102 (\$102 after-tax) for impairment of assets associated with agreements to sell the Company's Brazilian rolling mill operations (\$59) and U.K. forgings business (\$43); a charge of \$97 (\$74 after-tax) for layoff costs, including the separation of 1,183 employees (463 in Corporate, 350 in the EP&F segment, and 370 in the GRP segment); a charge of \$24 (\$18 after-tax) for impairment of properties, plants, and equipment related to the Company's primary research and development facility and a trade name intangible asset; a charge of \$12 (\$9 after-tax) for other exit costs from lease terminations, primarily related to the exit of the corporate aircraft; a charge of \$12 (\$9 after-tax) from the loss on sale of assets primarily related to a small additive business; a charge of \$8 (\$6 after-tax) for pension plan settlement accounting; charge of \$6 (\$5 after-tax) for accelerated

depreciation; a net charge of \$2 (\$1 after-tax) for executive severance net of the benefit of forfeited executive stock compensation; and a charge of \$1 (\$1 after-tax) for other miscellaneous items; partially offset by a benefit of \$58 (\$45 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.

On October 18, 2019, the Company announced that it would curtail operations at its GRP plant in San Antonio, Texas before the end of 2019. The plant generates approximately \$50 of annual revenue. The business will be transferred into other mills, which will improve the overall effectiveness of the Company's GRP operations. The Company expects to record a restructuring charge of approximately \$4 in the fourth quarter of 2019 associated with this curtailment.

In the third quarter of 2018, Restructuring and other charges was a net benefit of \$2 (\$3 after-tax), which included a postretirement curtailment benefit of \$28 (\$22 after-tax) (see Note E); a charge of \$12 (\$9 after-tax) for contract termination costs and asset impairments associated with the shutdown of a facility in Acuna, Mexico; a charge of \$8 (\$6 after-tax) for layoff costs, including the separation of approximately 85 employees (65 in the EP&F segment and 20 in Corporate); a charge of \$4 (\$3 after-tax) for pension plan settlement accounting; a charge of \$3 (\$2 after-tax) for other miscellaneous items; and a benefit of \$1 (\$1 after-tax) for the reversal of a number of small layoff reserves related to prior periods.

In the nine months ended September 30, 2018, Arconic recorded Restructuring and other charges of \$20 (\$14 after-tax), which included a postretirement curtailment benefit of \$28 (\$22 after-tax) (see Note E); a charge of \$14 (\$11 after-tax) for pension curtailments; a charge of \$16 (\$12 after-tax) for layoff costs, including the separation of approximately 125 employees (89 in the EP&F segment and 36 in Corporate); a charge of \$12 (\$9 after-tax) related to the shutdown of a facility in Acuna, Mexico as noted above; a charge of \$7 (\$5 after-tax) for other miscellaneous items; a charge of \$5 (\$4 after-tax) for exit costs primarily related to the New York office; a charge of \$4 (\$3 after-tax) for pension plan settlement accounting; and a benefit of \$10 (\$8 after-tax) for the reversal of a number of small layoff reserves related to prior periods.

As of September 30, 2019, approximately 745 of the 1,183 employees associated with the 2019 restructuring programs were separated. The 2018 and 2017 restructuring programs are essentially completed. Most of the remaining separations for the 2019 restructuring programs are expected to be completed in the first half of 2020. For the third quarter and nine months ended September 30, 2019, Arconic made cash payments of \$21 and \$61, respectively.

Activity and reserve balances for restructuring and other charges were as follows:

	Layoff costs	Other exit costs	Total
Reserve balances at December 31, 2017	\$ 56	\$ 2	\$ 58
Cash payments	(47)	(2)	(49)
Restructuring charges	111	13	124
Other ⁽¹⁾	(110)	2	(108)
Reserve balances at December 31, 2018	<u>10</u>	<u>15</u>	<u>25</u>
Cash payments	(61)	(4)	(65)
Restructuring charges	45	585	630
Other ⁽²⁾	50	(591)	(541)
Reserve balances at September 30, 2019	<u>\$ 44</u>	<u>\$ 5</u>	<u>\$ 49</u>

⁽¹⁾ In 2018, Other for layoff costs included reclassifications of \$119 in pension costs and a \$28 credit in postretirement benefits, as the impacts were reflected in Arconic's separate liabilities for Accrued pension benefits and Accrued postretirement benefits, and the reversal of previously recorded restructuring charges of \$19.

⁽²⁾ In 2019, Other for layoff costs included reclassifications of a \$58 credit for elimination of life insurance benefits for U.S. salaried and non-bargaining hourly retirees and a charge of \$8 for pension plan settlement accounting, as the impacts were reflected in Arconic's separate liabilities for Accrued pension benefits and Accrued postretirement benefits.

In 2019, Other for other exit costs included a charge of \$428 for impairment of the Disks long-lived asset group; a charge of \$102 for impairment of assets associated with agreements to sell the Company's Brazilian rolling mill operations and UK forgings business; a charge of \$24 for impairment of properties, plants, and equipment related to the Company's primary research and development facility and a trade name intangible asset; a charge of \$12 from the loss on sale of assets primarily related to a small additive business; a charge of \$12 for lease terminations; and a charge of \$6 for accelerated depreciation as the impacts were primarily reflected in various noncurrent asset accounts; partially offset

by a credit of \$2. Additionally, Other included the reclassification of \$9 in lease exit costs to reduce right-of-use assets within Other noncurrent assets in accordance with the new lease accounting standard.

The remaining reserves are expected to be paid in cash during 2019, with the exception of approximately \$15, which is expected to be paid in the first half of 2020 related to severance payments.

E. Other Expense, Net

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Non-service related net periodic benefit cost	\$ 30	\$ 27	\$ 88	\$ 83
Interest income	(5)	(6)	(21)	(16)
Foreign currency losses, net	7	6	3	20
Net loss from asset sales	2	2	6	7
Other, net	(3)	(21)	16	(25)
	<u>\$ 31</u>	<u>\$ 8</u>	<u>\$ 92</u>	<u>\$ 69</u>

For the third quarter and nine months ended September 30, 2018, Other, net included a benefit from establishing a tax indemnification receivable of \$29 reflecting Alcoa Corporation's 49% share of a Spanish tax reserve (see Note R).

F. Pension and Other Postretirement Benefits

The components of net periodic benefit cost were as follows:

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Pension benefits				
Service cost	\$ 6	\$ 9	\$ 19	\$ 37
Interest cost	59	54	177	164
Expected return on plan assets	(71)	(76)	(214)	(230)
Recognized net actuarial loss	35	42	104	126
Amortization of prior service cost (benefit)	—	1	1	3
Settlements	4	4	8	4
Curtailments	—	—	—	14
Net periodic benefit cost ⁽¹⁾	<u>\$ 33</u>	<u>\$ 34</u>	<u>\$ 95</u>	<u>\$ 118</u>
Other postretirement benefits				
Service cost	\$ 1	\$ 2	\$ 5	\$ 6
Interest cost	7	7	21	21
Recognized net actuarial loss	1	1	3	5
Amortization of prior service cost (benefit)	(1)	(2)	(4)	(6)
Curtailments	—	(28)	(58)	(28)
Net periodic benefit cost ⁽¹⁾	<u>\$ 8</u>	<u>\$ (20)</u>	<u>\$ (33)</u>	<u>\$ (2)</u>

⁽¹⁾ 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 first quarter of 2019, the Company communicated to plan participants that, effective May 1, 2019, the life insurance benefit for its U.S. salaried and non-bargained hourly retirees of the Company and its subsidiaries would be eliminated. As a result of this change, in the first quarter of 2019, the Company recorded a decrease to the Accrued other postretirement benefits liability of \$63, which was offset by a curtailment benefit of \$58 in Restructuring and other charges and \$5 in Accumulated other comprehensive loss.

Additionally, in the first quarter of 2019, the Company communicated to plan participants that, effective December 31, 2019, it will eliminate certain health care subsidies for its U.S. salaried and non-bargained hourly retirees of the Company and its subsidiaries. As a result of this change, in the first quarter of 2019, the Company recorded a decrease to the Accrued other postretirement benefits liability of \$12, which was offset in Accumulated other comprehensive loss.

During the third quarter of 2016, the Pension Benefit Guaranty Corporation approved management's plan to separate the Alcoa Inc. pension plans between Arconic Inc. and Alcoa Corporation. The plan stipulated that Arconic make cash contributions of \$150 over a period of 30 months (from November 1, 2016) to its two largest pension plans. The Company satisfied the requirements of the plan by making payments of \$34, \$66, and \$50 in April 2019, March 2018, and April 2017, respectively.

In the nine months ended September 30, 2019, the Company applied settlement accounting to U.S. pension plans due to lump sum payments to participants which resulted in settlement charges of \$8 that were recorded in Restructuring and other charges.

In June of 2019, the Company and the United Steelworkers (USW) reached a tentative three-year labor agreement covering approximately 3,400 employees at four U.S. locations; the previous labor agreement expired on May 15, 2019. The tentative agreement was ratified on July 11, 2019. In the second quarter of 2019, Arconic recognized \$9 in Cost of goods sold on the accompanying Statement of Consolidated Operations primarily for a one-time signing bonus for employees.

On July 25, 2019, the USW ratified a new four-year labor agreement covering approximately 560 employees at the Company's Niles, Ohio facility. The prior labor agreement expired on June 30, 2018.

On April 1, 2018, benefit accruals for future service and compensation under all of the Company's qualified and non-qualified defined benefit pension plans for U.S. salaried and non-bargaining hourly employees ceased. As a result of this change, in the first quarter of 2018, the Company recorded a decrease to the Accrued pension benefit liability of \$136 related to the reduction of future benefits (\$141 offset in Accumulated other comprehensive loss) and curtailment charges of \$5 in Restructuring and other charges.

On April 13, 2018, the United Auto Workers ratified a new five-year labor agreement, covering approximately 1,300 U.S. employees of Arconic, which expires on March 31, 2023. A provision within the agreement includes a retirement benefit increase for future retirees that participate in a defined benefit pension plan, which impacts approximately 300 of those employees. In addition, effective January 1, 2019, benefit accruals for future service ceased. As result of these changes, a curtailment charge of \$9 was recorded in Restructuring and other charges in the second quarter of 2018.

In the third quarter of 2018, the Company announced that effective December 31, 2018, it would end all pre-Medicare medical, prescription drug and vision coverage for current and future salaried and non-bargained hourly employees and retirees of the Company and its subsidiaries. As a result of this change, in the third quarter of 2018, the Company recorded a decrease to the Accrued other postretirement benefits liability of \$32 related to the reduction of future benefits, \$4 offset in Accumulated other comprehensive loss, and a curtailment benefit of \$28 in Restructuring and other charges.

In the third quarter of 2018, settlement accounting applied to a U.S. pension plan due to the payment of lump sums, resulting in a charge of \$4 that was recorded in Restructuring and other charges.

G. Income Taxes

Arconic'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 43.9% in both the third quarter and nine months ended September 30, 2019, and 26.5% in both the third quarter and nine months ended September 30, 2018. The estimated annual rates in 2019 and 2018 were higher than the U.S. federal statutory rate of 21.0% primarily due to estimated U.S. tax on Global Intangible Low-Taxed Income, the state tax impact of domestic taxable income, and foreign income taxed in higher rate jurisdictions. The 2019 estimated annual rate was also increased by certain nondeductible costs related to the proposed separation transaction and the impairment of certain domestic and foreign assets.

For the third quarter of 2019 and 2018, the tax rate including discrete items was 54.5% and 35.3%, respectively. For the third quarter of 2019, the Company recorded a discrete charge of \$10 related to the following: a charge of \$9 for the adjustment of prior year taxes, a charge of \$2 for interest accruals for the potential underpayment of taxes, and a benefit of \$1 to remeasure certain deferred tax assets as a result of a foreign tax rate change. For the third quarter of 2018, the Company recorded a discrete charge of \$26 related to the following: a charge of \$59 to establish a tax reserve in Spain (see Note [R](#)), a charge of \$13 related to prior year adjustments to various jurisdictions, a benefit of \$38 for the reversal of a foreign tax reserve that is effectively settled, and a benefit of \$8 for the reduction to the estimate of the then provisional impact of the Tax Cut and Jobs Act of 2017.

For the nine months ended September 30, 2019 and 2018, the tax rate including discrete items was 40.6% and 34.0%, respectively. For the nine months ended September 30, 2019, the Company recorded a discrete benefit of \$25 related to the following: a benefit of \$25 to deduct prior year foreign taxes rather than claim a U.S. foreign tax credit and a benefit of \$13 to remeasure certain deferred tax assets as a result of a foreign tax rate change, partially offset by a charge of \$9 for the adjustment of prior year taxes, a charge of \$2 for interest accruals for the potential underpayment of taxes, and a net charge \$2 for a number of small items. For the nine months ended September 30, 2018 the Company recorded a discrete charge of \$49 related to the following: a charge of \$59 to establish a tax reserve in Spain (see Note R), a charge of \$13 primarily related to revised estimates of the then provisional impact for the Tax Cuts and Jobs Act of 2017, a charge of \$13 related to prior year adjustments to various jurisdictions, and a charge of \$2 related to stock compensation, partially offset by a benefit of \$38 for the reversal of a foreign tax reserve that is effectively settled.

The tax provisions for the third quarter and nine months ended September 30, 2019 and 2018 were comprised of the following:

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Pre-tax income at estimated annual effective income tax rate before discrete items	\$ 92	\$ 66	\$ 119	\$ 170
Impact of change in estimated annual effective tax rate on previous quarter's pre-tax income	5	(2)	—	—
Interim period treatment of operational losses in foreign jurisdictions for which no tax benefit is recognized	7	(2)	16	(1)
Other discrete items	10	26	(25)	49
Provision for income taxes	<u>\$ 114</u>	<u>\$ 88</u>	<u>\$ 110</u>	<u>\$ 218</u>

H. Common Stock

On February 19, 2019, the Company entered into an accelerated share repurchase (ASR) agreement with JPMorgan Chase Bank to repurchase \$700 of its common stock (the "February 2019 ASR"), pursuant to the share repurchase programs previously authorized by its Board of Directors (the Board). Under the February 2019 ASR, Arconic received an initial delivery of shares on February 21, 2019 and additional shares on April 29, 2019. On May 2, 2019, the Company entered into an ASR agreement with JPMorgan Chase Bank to repurchase \$200 of its common stock (the "May 2019 ASR"), pursuant to the share repurchase programs previously authorized by its Board. Under the May 2019 ASR, Arconic received an initial delivery of shares on May 6, 2019 and additional shares on June 12, 2019. On May 14, 2019, the Board authorized an additional share repurchase program of up to \$500 of its outstanding common stock. On August 6, 2019, the Company entered into an ASR agreement with Goldman Sachs & Co. LLC (GS) to repurchase \$200 of its common stock (the "August 2019 ASR"), pursuant to the share repurchase programs previously authorized by its Board. Under the August 2019 ASR, Arconic received an initial delivery of shares on August 8, 2019 and additional shares on October 3, 2019. All of the shares repurchased during 2019 were immediately retired. After giving effect to the February 2019 ASR, May 2019 ASR, and August 2019 ASR, \$400 remains available under the prior authorizations by the Board for share repurchases through the end of 2020.

The following table provides details for the share repurchases during 2019.

Share delivery date	Number of shares	Average price	Total
February 21, 2019	31,908,831		
April 29, 2019	4,525,592		
February 2019 ASR total	36,434,423	\$19.21	\$700
May 6, 2019	7,455,732		
June 12, 2019	1,561,249		
May 2019 ASR total	9,016,981	\$22.18	\$200
August 8, 2019	6,791,172		
October 3, 2019 ⁽¹⁾	983,107		
August 2019 ASR total	7,774,279	\$25.73	\$200
2019 ASR total	53,225,683	\$20.67	\$1,100

⁽¹⁾ The term of the August 2019 ASR concluded on September 30, 2019, with GS delivering 983,107 additional shares to Arconic on October 3, 2019.

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 Arconic common shareholders was as follows (shares in millions):

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Net income	\$ 95	\$ 161	\$ 161	\$ 424
Less: preferred stock dividends declared	(1)	(1)	(2)	(2)
Net income available to Arconic common shareholders - basic	94	160	159	422
Add: Interest expense related to convertible notes	3	3	—	8
Net income available to Arconic common shareholders - diluted	\$ 97	\$ 163	\$ 159	\$ 430
Average shares outstanding - basic	436	483	451	483
Effect of dilutive securities:				
Stock options	1	—	1	1
Stock and performance awards	5	5	3	5
Convertible notes ⁽¹⁾	15	14	—	14
Average shares outstanding - diluted	457	502	455	503

⁽¹⁾ The convertible notes matured on October 15, 2019 (see Note Q). 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 will cease 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 September 30, 2019 and 2018 was 434 and 483, respectively. The decrease in common stock outstanding at September 30, 2019 was primarily due to the impact of share repurchases of approximately 52 in the nine months ended September 30, 2019 (see Note H). 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 third quarter and nine months ended September 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).

	Third quarter ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Convertible notes	—	—	15	—
Stock options ⁽¹⁾	3	6	3	6

⁽¹⁾ The average exercise price per share of options was \$32.64 for the third quarter and nine months ended September 30, 2019 and \$29.14 for the third quarter and nine months ended September 30, 2018.

J. Accumulated Other Comprehensive Loss

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

	Third quarter ended		Nine months ended	
	September 30,		September 30,	
	2019	2018	2019	2018
Pension and other postretirement benefits (F)				
Balance at beginning of period	\$ (2,281)	\$ (2,058)	\$ (2,344)	\$ (2,230)
Other comprehensive income:				
Unrecognized net actuarial loss and prior service cost/benefit	(6)	30	60	152
Tax benefit (expense)	2	(7)	(13)	(35)
Total Other comprehensive (loss) income before reclassifications, net of tax	(4)	23	47	117
Amortization of net actuarial loss and prior service cost ⁽¹⁾	39	18	54	118
Tax expense ⁽²⁾	(9)	(4)	(12)	(26)
Total amount reclassified from Accumulated other comprehensive loss, net of tax ⁽⁵⁾	30	14	42	92
Total Other comprehensive income	26	37	89	209
Balance at end of period	\$ (2,255)	\$ (2,021)	\$ (2,255)	\$ (2,021)
Foreign currency translation				
Balance at beginning of period	\$ (587)	\$ (516)	\$ (583)	\$ (437)
Other comprehensive loss ⁽³⁾	(87)	(16)	(91)	(95)
Balance at end of period	\$ (674)	\$ (532)	\$ (674)	\$ (532)
Available-for-sale securities				
Balance at beginning of period	\$ —	\$ (4)	\$ (3)	\$ (2)
Other comprehensive income (loss) ⁽⁴⁾	1	1	4	(1)
Balance at end of period	\$ 1	\$ (3)	\$ 1	\$ (3)
Cash flow hedges				
Balance at beginning of period	\$ (1)	\$ 22	\$ 4	\$ 25
Adoption of accounting standards (B)	—	—	(2)	—
Other comprehensive loss:				
Net change from periodic revaluations	—	(7)	(5)	(4)
Tax benefit	—	1	2	1
Total Other comprehensive loss before reclassifications, net of tax	—	(6)	(3)	(3)
Net amount reclassified to earnings	2	(5)	1	(12)
Tax (expense) benefit ⁽²⁾	(1)	1	—	2
Total amount reclassified from Accumulated other comprehensive loss, net of tax ⁽⁵⁾	1	(4)	1	(10)
Total Other comprehensive income (loss)	1	(10)	(2)	(13)
Balance at end of period	\$ —	\$ 12	\$ —	\$ 12
Accumulated other comprehensive loss	\$ (2,928)	\$ (2,544)	\$ (2,928)	\$ (2,544)

(1) These amounts were recorded in Other expense, net (see Note E).

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

(3) In all periods presented, no amounts were reclassified to earnings.

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

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

K. Receivables

Arconic has an arrangement with three financial institutions to sell certain customer receivables without recourse on a revolving basis. The sale of such receivables is completed using a bankruptcy remote special purpose entity, which is a consolidated subsidiary of Arconic. This arrangement provides up to a maximum funding of \$400 for receivables sold. Arconic maintains a beneficial interest, or a right to collect cash, on the sold receivables that have not been funded (deferred purchase program). On March 30, 2012, Arconic initially sold \$304 of customer receivables in exchange for \$50 in cash and \$254 of deferred purchase program under the arrangement. Arconic has received additional net cash funding of \$300 (\$3,408 in draws and \$3,108 in repayments) since the program's inception, including net cash draws totaling \$0 (\$450 in draws and \$450 in repayments) for the nine months ended September 30, 2019.

As of September 30, 2019 and December 31, 2018, the deferred purchase program receivable was \$461 and \$234, 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 gross amount of receivables sold and total cash collected under this program since its inception was \$46,843 and \$46,032, respectively. Arconic 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.

L. Inventories

	September 30, 2019	December 31, 2018
Finished goods	\$ 696	\$ 668
Work-in-process	1,410	1,371
Purchased raw materials	350	366
Operating supplies	99	87
Total inventories	<u>\$ 2,555</u>	<u>\$ 2,492</u>

At September 30, 2019 and December 31, 2018, the portion of inventories valued on a last-in, first-out (LIFO) basis was \$1,310 and \$1,292, respectively. If valued on an average-cost basis, total inventories would have been \$471 and \$530 higher at September 30, 2019 and December 31, 2018, respectively.

M. Long-Lived Assets

	September 30, 2019	December 31, 2018
Land and land rights	\$ 133	\$ 136
Structures	2,349	2,364
Machinery and equipment	9,224	9,234
	11,706	11,734
Less: accumulated depreciation and amortization	7,070	6,769
	4,636	4,965
Construction work-in-progress	741	739
	<u>\$ 5,377</u>	<u>\$ 5,704</u>

During the second quarter of 2019, the Company updated its five-year strategic plan and determined that there was a decline in the forecasted financial performance for the Disks asset group within the EP&F segment. As such, the Company evaluated the recoverability of the Disks long-lived assets by comparing the carrying value to the undiscounted cash flows of the Disks asset group. The carrying value exceeded the undiscounted cash flows and therefore the Disks long-lived assets were deemed to be impaired. The impairment charge was measured as the amount of carrying value in excess of fair value of the long-lived assets, with fair value determined using a discounted cash flow model and a combination of sales comparison and cost approach valuation methods including an estimate for economic obsolescence. The impairment charge of \$428 recorded in the second quarter of 2019 impacted properties, plants, and equipment; intangible assets; and certain other noncurrent assets by \$198,

\$197, and \$33, respectively. The impairment charge was recorded in Restructuring and other charges in the Statement of Consolidated Operations.

N. Leases

The Company determines whether a contract contains a lease at inception. The Company leases land and buildings, plant equipment, vehicles, and computer equipment which have been classified as operating leases. Certain real estate leases include one or more options to renew; the exercise of lease renewal options is at the Company's discretion. The Company includes renewal option periods in the lease term when it is determined that the options are reasonably certain to be exercised. Certain of Arconic's real estate lease agreements include rental payments that either have fixed contractual increases over time or adjust periodically for inflation. Certain of the Company's lease agreements include variable lease payments. The variable portion of payments is not included in the initial measurement of the right-of-use asset or lease liability due to the uncertainty of the payment amount and is recorded as lease cost in the period incurred. The Company also rents or subleases certain real estate to third parties, which is not material to the consolidated financial statements.

Operating lease right-of-use assets and lease liabilities with an initial term greater than 12 months are recorded on the balance sheet at the present value of the future minimum lease payments over the lease term at the lease commencement date and are recognized as lease expense on a straight-line basis over the lease term. The Company uses an incremental collateralized borrowing rate based on the information available at the lease commencement date in determining the present value of future payments, as most of its leases do not provide an implicit rate. The operating lease right-of-use assets also include any lease prepayments made and were reduced by lease incentives and accrued exit costs as of the adoption date.

Operating lease cost, which includes short-term leases and variable lease payments and approximates cash paid, was \$36 and \$35 in the third quarter of 2019 and 2018, respectively, and \$110 and \$109 in the nine months ended September 30, 2019 and 2018, respectively.

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

	September 30, 2019
Right-of-use assets classified in Other noncurrent assets	\$ 256
Current portion of lease liabilities classified in Other current liabilities	74
Long-term portion of lease liabilities classified in Other noncurrent liabilities and deferred credits	194
Total lease liabilities	\$ 268

Future minimum contractual operating lease obligations were as follows:

	September 30, 2019	December 31, 2018
2019	\$ 24	\$ 94
2020	79	74
2021	59	54
2022	43	40
2023	32	30
Thereafter	90	87
Total lease payments	\$ 327	\$ 379
Less: Imputed interest	(59)	
Present value of lease liabilities	\$ 268	

Right-of-use assets obtained in exchange for operating lease obligations in the third quarter and nine months ended September 30, 2019 were \$7 and \$25, respectively. The weighted-average remaining lease term and weighted-average discount rate at September 30, 2019 was 6 years and 6.1%, respectively.

O. Debt

	September 30, 2019	December 31, 2018
1.63% Convertible Notes, due 2019	403	403
6.150% Notes, due 2020	1,000	1,000
5.40% Notes due 2021	1,250	1,250
5.87% Notes, due 2022	627	627
5.125% Notes, due 2024	1,250	1,250
5.90% Notes, due 2027	625	625
6.75% Bonds, due 2028	300	300
5.95% Notes, due 2037	625	625
Iowa Finance Authority Loan, due 2042	250	250
Other ⁽¹⁾	(21)	(29)
	6,309	6,301
Less: amount due within one year	1,404	405
Total long-term debt	\$ 4,905	\$ 5,896

⁽¹⁾ Includes various financing arrangements related to subsidiaries, unamortized debt discounts related to outstanding notes and bonds listed in the table above, an equity option related to the convertible notes due in 2019, and unamortized debt issuance costs.

Public Debt. On October 15, 2019, the 1.63% Convertible Notes ("the Notes") matured in accordance with their terms and the Company repaid in cash on the maturity date the aggregate outstanding principal amount of the Notes of approximately \$403 together with accrued and unpaid interest, pursuant to the terms of the Notes.

Credit Facilities. Arconic maintains a Five-Year Revolving Credit Agreement (the "Credit Agreement") with a syndicate of lenders and issuers named therein that matures on June 29, 2023 and provides for a senior unsecured revolving credit facility of \$3,000. There were no amounts outstanding at September 30, 2019 or December 31, 2018, and no amounts were borrowed during 2019 or 2018 under the Credit Agreement. In addition to the Credit Agreement, Arconic has a number of other credit agreements that provide a combined borrowing capacity of \$715 as of September 30, 2019, of which \$175 is due to expire in 2019 and \$540 is due to expire in 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 nine months ended September 30, 2019, Arconic borrowed and repaid \$300 and \$300, respectively, under these other credit facilities. The weighted-average interest rate and weighted-average days outstanding during the third quarter and nine months ended September 30, 2019 were 3.7% and 70 days and 3.8% and 46 days, respectively.

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 Arconic 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.

	September 30, 2019		December 31, 2018	
	Carrying value	Fair value	Carrying value	Fair value
Long-term debt, less amount due within one year	\$ 4,905	\$ 5,288	\$ 5,896	\$ 5,873

Restricted cash was \$3 and \$6 at September 30, 2019 and December 31, 2018, respectively.

Q. Acquisitions and Divestitures

2019 Divestitures. On May 31, 2019, Arconic sold a small additive manufacturing facility within the EP&F segment for \$1 in cash, which resulted in a loss of \$13 in the second quarter of 2019 recorded in Restructuring and other charges in the Statement of Consolidated Operations. The sale is subject to certain post-closing adjustments.

On August 15, 2019, Arconic sold inventories and properties, plants, and equipment related to a small energy business within the EP&F segment for \$13 in cash. As the sale agreement was substantially complete as of June 30, 2019, and the sale price was estimated to be less than the carrying value, Arconic 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.

On August 23, 2019, Arconic reached an agreement to sell its aluminum rolling mill in Itapissuma, Brazil for \$50 in cash, subject to working capital and other adjustments. The rolling mill produces specialty foil and sheet products and its operating results and assets and liabilities are included in the GRP segment. The sale transaction is expected to close in the first quarter of 2020, subject to regulatory approvals and customary closing conditions. As a result of entering into the agreement, Arconic recognized a charge of \$59 in the third quarter of 2019 related to a non-cash impairment of the net book value of the business, primarily properties, plants, and equipment, and recorded the charge in Restructuring and other charges in the Statement of Consolidated Operations.

On September 13, 2019, Arconic reached an agreement to sell its forgings business in the United Kingdom for \$62 in cash, subject to working capital and other adjustments. 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 are included in the EP&F segment. The sale transaction is expected to close in the fourth quarter of 2019, subject to regulatory approvals and customary closing conditions. As a result of entering into the agreement, Arconic recognized a charge of \$43 in the third quarter of 2019 related to a non-cash impairment of the net book value of the business, primarily properties, plants, and equipment, goodwill, and deferred taxes, and recorded the charge in Restructuring and other charges in the Statement of Consolidated Operations.

On October 30, 2019, Arconic reached an agreement to sell its hard alloy extrusions plant in South Korea for \$61 in cash, subject to working capital and other adjustments. The operating results and assets and liabilities of this plant are included in the GRP segment. The sale transaction is expected to close in the first quarter of 2020, subject to regulatory approvals and customary closing conditions. Arconic expects to recognize a gain of \$20 to \$25 upon the sale, which will be recorded in Restructuring and other charges in the Statement of Consolidated Operations.

2018 Divestitures. On April 2, 2018, Arconic completed the sale of its Latin America extrusions business to a subsidiary of Hydro Extruded Solutions AS for \$2, following the settlement of post-closing and other adjustments in December 2018. As a result of entering into the agreement to sell the Latin America extrusions business in December 2017, a charge of \$41 was recognized in the fourth quarter of 2017 in Restructuring and other charges in the Statement of Consolidated Operations related to the non-cash impairment of the net book value of the business, and an additional charge of \$2 related to a post-closing adjustment was recognized in the fourth quarter of 2018. The operating results and assets and liabilities of the business were included in the TCS segment at the time of divestiture, but were transferred to Corporate in connection with a segment change in the third quarter of 2019 (see Note [C](#)). This business generated sales of \$25 in the first quarter of 2018 and had 612 employees at the time of divestiture.

On July 31, 2018, the Company announced that it had initiated a sale process of its BCS business, as part of the Company's ongoing strategy and portfolio review. In the first quarter of 2019, the Company decided to no longer pursue the sale of BCS and the business continued to be reported in the TCS segment until it was transferred to the GRP segment in connection with a segment change in the third quarter of 2019 (see Note [C](#)).

On October 31, 2018, the Company sold its Texarkana, Texas rolling mill and cast house, which had a combined net book value of \$63, to Ta Chen International, Inc. for \$302 in cash, including the settlement of post-closing adjustments, plus additional contingent consideration of up to \$50. The contingent consideration relates to the achievement of various milestones within 36 months of the transaction closing date associated with operationalizing the rolling mill equipment. The operating results and assets and liabilities of the business were included in the GRP segment. The Texarkana rolling mill facility had previously been idle since late 2009. In early 2016, the Company restarted the Texarkana cast house to meet demand for aluminum slab. As part of the agreement, the Company will continue to produce aluminum slab at the facility for a period of 18 months through a lease back of the cast house building and equipment, after which time, Ta Chen will perform toll processing of metal for the Company for a period of six months. The Company will supply Ta Chen with cold-rolled aluminum coil during this 24-month period.

The sale of the rolling mill and cast house had been accounted for separately. The gain on the sale of the rolling mill of \$154, including the fair value of contingent consideration of \$5, was recorded in Restructuring and other charges in the Statement of Consolidated Operations in the fourth quarter of 2018. The Company continues to reevaluate its estimate of the remaining \$45

of contingent consideration to which it will be entitled at the end of each reporting period and recognize any changes thereto in the Statement of Consolidated Operations.

The Company had continuing involvement related to the lease back of the cast house. As a result, in 2018, the Company continued to treat the cast house building and equipment that it sold to Ta Chen as owned and therefore reflected the following balances in its Consolidated Balance Sheet at December 31, 2018: assets of \$24 in Properties, plants, and equipment, net; cash proceeds of \$119 in Other noncurrent liabilities and deferred credits (which included a deferred gain of \$95); and a deferred tax asset of \$22 in Other noncurrent assets. In the first quarter of 2019, in conjunction with the adoption of the new lease accounting standard (see Note B), the Company's continuing involvement no longer requires deferral of the recognition of the cast house sale. As such, the cash proceeds, fixed assets, and deferred tax asset related to the cast house were reclassified to Accumulated deficit as a cumulative effect of an accounting change.

R. Contingencies and Commitments

Contingencies

Environmental Matters

Arconic participates in environmental assessments and cleanups at more than 100 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.

Arconic's remediation reserve balance was \$253 at September 30, 2019 and \$266 at December 31, 2018 recorded in Other noncurrent liabilities and deferred credits in the Consolidated Balance Sheet (of which \$88 and \$81, 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 \$22 and \$38 in the third quarter and nine months ended September 30, 2019, respectively, 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 following discussion provides details regarding the current status of the most significant remediation reserves related to a current Arconic site.

Massena, NY—Arconic has an ongoing remediation project related to the Grasse River, which is adjacent to Arconic's Massena plant site. Many years ago, it was determined that sediments and fish in the river contain varying levels of polychlorinated biphenyls (PCBs). The project, which was selected by the U.S. Environmental Protection Agency (EPA) in a Record of Decision issued in April 2013, is aimed at capping PCB contaminated sediments with concentration in excess of one part per million in the main channel of the river and dredging PCB contaminated sediments in the near-shore areas where total PCBs exceed one part per million. At September 30, 2019 and December 31, 2018, the reserve balance associated with this matter was \$191 and \$198, respectively. In the first quarter of 2019, Arconic received approval from the EPA of its final remedial design which is now under construction and is expected to be completed in 2022. During the second quarter of 2019, Arconic recorded a charge of \$25 due to changes required in the remedial design and post-construction monitoring. As the project proceeds, the liability may be updated due to factors such as changes in remedial requirements, site restoration costs, and ongoing operation and maintenance costs, among others.

Tax

Pursuant to the Tax Matters Agreement entered into between Arconic and Alcoa Corporation in connection with the separation transaction with Alcoa Corporation, Arconic shares responsibility with Alcoa Corporation, and Alcoa Corporation has agreed to partially indemnify Arconic for 49% of the ultimate liability, with respect to the following matter.

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. Arconic 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 \$166 (€152), 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 of Spain 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, which would be shared between the Company and Alcoa Corporation as provided for in the Tax Matters Agreement.

Arconic has an income tax reserve, including interest, of \$58 (€53) and an indemnification receivable of \$28 (€26), representing Alcoa Corporation's 49% share of the liability. The reserve and indemnification receivable were established in the third quarter of 2018.

Additionally, while the tax years 2010 through 2013 are closed to audit, it is possible that the Company may receive assessments for tax years subsequent to 2013. Any potential assessment for an individual tax year is not expected to be material to the Company's consolidated operations.

Reynobond PE

As previously reported, on June 13, 2017, the Grenfell Tower in London, U.K. caught fire resulting in fatalities, injuries and damage. A French subsidiary of Arconic, 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 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 are expected to begin 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.

Behrens et al. v. Arconic Inc. et al. As previously reported, 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, in the Court of Common Pleas of Philadelphia County. The complaint alleges 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 Arconic Defendants removed the case to the United States District Court for the Eastern District of Pennsylvania on June 19, 2019. On August 29, 2019, the Arconic Defendants moved to dismiss the complaint on the bases, among other things, that: (i) the case should be heard in the United Kingdom, not the United States; (ii) there is no jurisdiction over necessary parties; and (iii) Pennsylvania products liability law does not apply to manufacture and sale of product overseas. Given the preliminary nature of this matter and the uncertainty of 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.

Howard v. Arconic Inc. et al. As previously reported, 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 August 25, 2017, under the caption *Sullivan v. Arconic Inc. et al.*, against Arconic Inc., two former Arconic executives, several current and former Arconic directors, and banks that acted as underwriters for Arconic's September 18, 2014 preferred stock offering (the "Preferred Offering"). The plaintiff in *Sullivan* had previously filed a purported class action against the same defendants on July 18, 2017 in the Southern District of New York and, on August 25, 2017, voluntarily dismissed that action without prejudice. On February 7, 2018, on motion from certain putative class members, the court

consolidated *Howard* and *Sullivan*, closed *Sullivan*, and appointed lead plaintiffs in the consolidated case. On April 9, 2018, the lead plaintiffs in the consolidated purported class action filed a consolidated amended complaint. The consolidated amended complaint alleged that the registration statement for the Preferred Offering contained false and misleading statements and omitted to state material information, including by allegedly failing to disclose material uncertainties and trends resulting from sales of Reynobond PE for unsafe uses and by allegedly expressing a belief that appropriate risk management and compliance programs had been adopted while concealing the risks posed by Reynobond PE sales. The consolidated amended complaint also alleged that between November 4, 2013 and June 23, 2017 Arconic and Kleinfeld made false and misleading statements and failed to disclose material information about the Company's commitment to safety, business and financial prospects, and the risks of the Reynobond PE product, including in Arconic's Form 10-Ks for the fiscal years ended December 31, 2013, 2014, 2015 and 2016, its Form 10-Qs and quarterly financial press releases from the fourth quarter of 2013 through the first quarter of 2017, its 2013, 2014, 2015 and 2016 Annual Reports, its 2016 Annual Highlights Report, and on its official website. The consolidated amended complaint sought, among other things, unspecified compensatory damages and an award of attorney and expert fees and expenses. On June 8, 2018, all defendants moved to dismiss the consolidated amended complaint for failure to state a claim. On June 21, 2019, the Court granted the defendants' motion to dismiss in full, dismissing the consolidated amended complaint in its entirety without prejudice. On July 23, 2019, the lead plaintiffs filed a second amended complaint. The second amended complaint alleges generally the same claims as the consolidated amended complaint with certain additional allegations, as well as claims that the risk factors set forth in the registration statement for the Preferred Offering were inadequate and that certain additional statements in the sources identified above were misleading. The second amended complaint seeks, among other things, unspecified compensatory damages and an award of attorney and expert fees and expenses. On September 11, 2019, all defendants moved to dismiss the second amended complaint. Plaintiffs' opposition to that motion is due by November 1, 2019. Given the preliminary nature of this matter and the uncertainty of 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.

Raul v. Albaugh, et al. As previously reported, on June 22, 2018, a derivative complaint was filed nominally on behalf of Arconic by a purported Arconic stockholder against the then members of Arconic's Board of Directors and Klaus Kleinfeld and Ken Giacobbe, naming Arconic 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 Section 14(a) of the Securities Exchange Act of 1934 and Delaware state law. On July 13, 2018, the parties filed a stipulation agreeing to stay this case until the final resolution of the *Howard* case, the Grenfell Tower Public Inquiry in London, and the investigation by the Police and on July 23, 2018, the Court approved the stay. Given the preliminary nature of this matter and the uncertainty of 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.

While the Company believes that these cases are without merit and intends to challenge them vigorously, there can be no assurances regarding the ultimate resolution of these matters.

Stockholder Demands. 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 Arconic, 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 September 30, 2019, Arconic 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 2019 and 2026, was \$31 at September 30, 2019.

Pursuant to the Separation and Distribution Agreement between Arconic and Alcoa Corporation, Arconic was required to provide certain guarantees for Alcoa Corporation, which had a combined fair value of \$8 and \$6 at September 30, 2019 and December 31, 2018, respectively, and were included in Other noncurrent liabilities and deferred credits on the accompanying Consolidated Balance Sheet. Arconic was required to provide a guarantee up to an estimated present value amount of approximately \$1,265 and \$1,087 at September 30, 2019 and December 31, 2018, respectively, related to a long-term supply agreement for energy for an Alcoa Corporation facility in the event of an Alcoa Corporation payment default. This guarantee expires in 2047. For this guarantee, subject to its provisions, Arconic is secondarily liable in the event of a payment default by Alcoa Corporation. Arconic currently views the risk of an Alcoa Corporation payment default on its obligations under the contract to be remote.

Letters of Credit

Arconic 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 2019, was \$146 at September 30, 2019.

Pursuant to the Separation and Distribution Agreement, Arconic was required to retain letters of credit of \$52 that had previously been provided related to both Arconic and Alcoa Corporation workers' compensation claims which occurred prior to November 1, 2016. Alcoa Corporation workers' compensation claims and letter of credit fees paid by Arconic are being proportionally billed to and are being fully reimbursed by Alcoa Corporation.

Surety Bonds

Arconic 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 2019, was \$49 at September 30, 2019.

Pursuant to the Separation and Distribution Agreement, Arconic was required to provide surety bonds related to Alcoa Corporation workers' compensation claims which occurred prior to November 1, 2016 and, as a result, Arconic has \$24 in outstanding surety bonds relating to these liabilities. Alcoa Corporation workers' compensation claims and surety bond fees paid by Arconic are being proportionately billed to and are being fully reimbursed by Alcoa Corporation.

S. Proposed Separation Transaction

On February 8, 2019, Arconic announced, as part of its strategy and portfolio review, a separation of its portfolio into two independent, publicly-traded companies. The EP&F businesses will remain in the existing company (Remain Co.) which will be renamed Howmet Aerospace Inc. at separation. The GRP businesses will comprise Spin Co. and will be named Arconic Corporation at separation. The Company will also consider the sale of businesses that do not best fit into EP&F and GRP. The Company is targeting to complete the separation in the second quarter of 2020. The separation transaction is subject to a number of conditions, including, but not limited to, final approval by Arconic's Board of Directors, receipt of a favorable opinion of legal counsel with respect to the tax-free nature of the transaction for U.S. federal income tax purposes, completion of financing, and the effectiveness of a Form 10 registration statement to be filed with the U.S. Securities and Exchange Commission. The Company expects the Form 10 filing to be available in the fourth quarter of 2019. Arconic may, at any time and for any reason until the proposed transaction is complete, abandon the separation plan or modify or change its terms. In the third quarter and nine months ended September 30, 2019, Arconic recognized \$25 and \$44, respectively, in Selling, general administrative, and other expenses on the accompanying Statement of Consolidated Operations for costs related to the proposed separation transaction.

T. Subsequent Events

Management evaluated all activity of Arconic 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, except as noted below:

See Note [D](#) for details of a curtailment of operations at a plant in the GRP segment.

See Note [H](#) for details of the August 2019 ASR that was settled in October.

See Note [O](#) for details on the maturity of Convertible Notes.

See Note [Q](#) for details on an agreement reached to sell a hard alloy extrusions plant.

Report of Independent Registered Public Accounting Firm*

To the Shareholders and Board of Directors of Arconic Inc.

Results of Review of Interim Financial Statements

We have reviewed the accompanying consolidated balance sheet of Arconic Inc. and its subsidiaries (the "Company") as of September 30, 2019, and the related statements of consolidated operations, of consolidated comprehensive income (loss), and of changes in consolidated equity for the three-month and nine-month periods ended September 30, 2019 and 2018 and the statements of consolidated cash flows for the nine-month periods ended September 30, 2019 and 2018, including the related notes (collectively referred to as the "interim financial statements"). Based on our reviews, we are not aware of any material modifications that should be made to the accompanying interim financial statements for them to be in conformity with accounting principles generally accepted in the United States of America.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of the Company as of December 31, 2018, and the related consolidated statements of operations, comprehensive (loss) income, changes in equity, and cash flows for the year then ended (not presented herein), and in our report dated February 21, 2019, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet information as of December 31, 2018, is fairly stated, in all material respects, in relation to the consolidated balance sheet from which it has been derived.

Basis for Review Results

These interim financial statements are the responsibility of the Company's management. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. We conducted our review in accordance with the standards of the PCAOB. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the PCAOB, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

/s/ PricewaterhouseCoopers LLP
PricewaterhouseCoopers LLP
Pittsburgh, Pennsylvania
November 5, 2019

* The Company notes that PricewaterhouseCoopers LLP is not subject to the liability provisions of Section 11 of the Securities Act of 1933 for its report on the unaudited interim financial statements because that report is not a "report" or a "part" of a registration statement within the meaning of Sections 7 and 11 of the Act.

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

(dollars in millions, except per share amounts; shipments in thousands of metric tons [kmt])

Overview

Our Business

Arconic (“Arconic” or the “Company”) is a global leader in lightweight metals engineering and manufacturing. Arconic’s innovative, multi-material products, which include aluminum, titanium, and nickel, are used worldwide in aerospace, automotive, commercial transportation, building and construction, industrial applications, defense, and packaging.

Results of Operations

Earnings Summary:

Sales. Sales were \$3,559 in the third quarter of 2019 compared to \$3,524 in the third quarter of 2018 and \$10,791 in the nine months ended September 30, 2019 compared to \$10,542 in the nine months ended September 30, 2018. The increase of \$35, or 1%, in the third quarter of 2019 and \$249, or 2%, in the nine months ended September 30, 2019, was primarily due to volume growth in the aerospace, commercial transportation, packaging, and industrial end markets; favorable product pricing and mix in the Global Rolled Products (GRP) segment; and favorable product pricing in the Engineered Products and Forgings (EP&F) segment (formerly named the Engineered Products and Solutions segment) when fulfilling volume above contractual share, renewing contracts, and selling non-contractual spot business; partially offset by lower aluminum prices; lower sales of \$44 and \$177 in the third quarter and nine months ended September 30, 2019, respectively, related to the completed ramp down of Arconic’s North American packaging operations (in December 2018) and the divestitures of the extrusions business in Latin America (divested in April 2018) and the forgings business in Eger, Hungary (divested in December 2018); and unfavorable foreign currency movements. The nine months ended September 30, 2018 was also impacted by costs incurred of \$38 related to settlements of certain customer claims primarily related to product introductions.

Cost of goods sold (COGS). COGS as a percentage of Sales was 78.7% in the third quarter of 2019 compared to 81.8% in the third quarter of 2018 and 79.3% in the nine months ended September 30, 2019 compared to 81.1% in the nine months ended September 30, 2018. The decrease in the third quarter and nine months ended September 30, 2019 was primarily due to lower raw material costs including aluminum prices, favorable product pricing, and net cost savings, partially offset by unfavorable product mix, and costs related to a fire at a fasteners plant of \$4 and \$8 in the third quarter and nine months ended September 30, 2019, respectively. The nine months ended September 30, 2019 also included the following costs: a charge for environmental remediation at Grasse River of \$25; the impairment of energy business assets of \$9; and a charge of \$9 primarily for a one-time signing bonus for employees associated with the collective bargaining agreement negotiation. In June of 2019 the Company and the United Steelworkers reached a tentative three-year labor agreement covering approximately 3,400 employees at four U.S. locations; the previous labor agreement expired on May 15, 2019. The tentative agreement was ratified on July 11, 2019. The nine months ended September 30, 2018 included the following costs that did not recur in 2019: costs of \$38 related to settlements of certain customer claims noted above and a charge of \$23 related to a physical inventory adjustment at one plant in the GRP segment (this plant was previously included in the EP&F segment prior to the transfer of the aluminum extrusions operations from EP&F to GRP in the first quarter of 2019). In the second quarter of 2019, the Company sustained a fire at a fasteners plant in France and recorded a charge of \$4 for equipment and inventory damage, as well as higher operating costs. The Company recorded a charge of \$4 in the third quarter of 2019 for repairs, cleanup, and higher operating costs related to the fire. The Company anticipates a charge of approximately \$10 to \$15 in the fourth quarter of 2019, with additional impacts in subsequent quarters as the business continues to recover from the fire. The Company has insurance with a deductible of \$10.

Selling, general administrative, and other expenses (SG&A). SG&A expenses were \$167 in the third quarter of 2019 compared to \$134 in the third quarter of 2018 and \$523 in the nine months ended September 30, 2019 compared to \$464 in the nine months ended September 30, 2018. The increase of \$33, or 25%, in the third quarter of 2019 and \$59, or 13%, in the nine months ended September 30, 2019, was primarily due to costs associated with the planned separation of Arconic of \$25 and \$44 in the third quarter and nine months ended September 30, 2019, respectively, and higher annual incentive compensation accruals and executive compensation costs, partially offset by lower costs driven by overhead cost reductions. The nine months ended September 30, 2019 was also impacted by \$6 in strategy and portfolio review costs.

Research and development expenses (R&D). R&D expenses were \$16 in the third quarter of 2019 compared to \$25 in the third quarter of 2018 and \$55 in the nine months ended September 30, 2019 compared to \$77 in the nine months ended September 30, 2018. The decrease of \$9, or 36%, in the third quarter of 2019 and \$22, or 29%, in the nine months ended September 30, 2019, 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 \$119 in the third quarter of 2019 compared to a net benefit of \$2 in the third quarter of 2018 and \$630 in the nine months ended September 30, 2019 compared to \$20 in the nine months ended September 30, 2018. The increase of \$121 in the third quarter of 2019 and \$610 in the nine months ended September 30, 2019, was primarily due to charges of \$59 and \$43 primarily related to non-cash impairments of the net book value of the Company's aluminum rolling mill in Brazil and its forgings business in the U.K., respectively, associated with agreements reached during the quarter to sell these businesses. The nine months ended September 30, 2019 was also impacted by a charge for impairment of a long-lived asset group of \$428 (see Note [M](#) to the Consolidated Financial Statements); an increase in layoff charges of \$81, and a charge for impairment of a trade name intangible asset and properties, plants, and equipment of \$24; partially offset by a credit of \$58 related to the elimination of life insurance benefits for U.S. salaried and non-bargaining hourly retirees of the Company and its subsidiaries. The nine months ended September 30, 2018 was also impacted by a postretirement curtailment benefit of \$28. See Note [D](#) to the Consolidated Financial Statements.

Interest expense. Interest expense was \$86 in the third quarter of 2019 compared to \$88 in the third quarter of 2018 and \$256 in the nine months ended September 30, 2019 compared to \$291 in the nine months ended September 30, 2018. The decrease of \$2, or 2%, in the third quarter of 2019 and \$35, or 12%, in the nine months ended September 30, 2019, was primarily due to lower debt outstanding. The nine months ended September 30, 2018 was also impacted by a charge of \$19 related to the premium paid on the early redemption of the Company's then outstanding 5.72% Senior Notes due 2019.

Other expense, net. Other expense, net was \$31 in the third quarter of 2019 compared to \$8 in the third quarter of 2018 and \$92 in the nine months ended September 30, 2019 compared to \$69 in the nine months ended September 30, 2018. The increase of \$23, or 288%, in the third quarter of 2019 and \$23, or 33%, in the nine months ended September 30, 2019, was primarily due to a benefit of \$29 from establishing a tax indemnification receivable reflecting Alcoa Corporation's 49% share of a Spanish tax reserve in 2018 that did not recur in 2019 and an increase in deferred compensation arrangements related to investment performance. The nine months ended September 30, 2019 was also impacted by favorable foreign currency movements.

Provision for income taxes. The tax rate including discrete items was 54.5% in the third quarter of 2019 compared to 35.3% in the third quarter of 2018. A discrete tax charge of \$10 was recorded in the third quarter of 2019 compared to a discrete tax charge of \$26 in the third quarter of 2018. The estimated annual effective tax rate, before discrete items, applied to ordinary income was 43.9% in the third quarter of 2019 compared to 26.5% in the third quarter of 2018. See Note [G](#) to the Consolidated Financial Statements.

Net income. Net income was \$95 in the third quarter of 2019, or \$0.21 per diluted share, compared \$161 in the third quarter of 2018, or \$0.32 per diluted share, and \$161 in the nine months ended September 30, 2019, or \$0.35 per diluted share, compared to \$424 in the nine months ended September 30, 2018, or \$0.86 per diluted share. The decrease of \$66 in the third quarter of 2019 and \$263 in the nine months ended September 30, 2019, was primarily due to higher Restructuring and other charges, higher Income taxes, higher SG&A expenses, and higher Other expense, net, partially offset by volume growth, favorable product pricing, net cost savings, lower Interest expense, and lower R&D expenses.

Segment Information

Segment performance under Arconic's management reporting system is evaluated based on a number of factors; however, the primary measure of performance is Segment operating profit. Arconic's definition of Segment operating profit is Operating income excluding Special items. Special items include Restructuring and other charges. Segment operating profit includes the impact of LIFO inventory accounting, metal price lag, intersegment profit eliminations, and derivative activities. Segment operating profit may not be comparable to similarly titled measures of other companies. Differences between segment totals and consolidated Arconic are in Corporate.

In the third quarter of 2019, the Company realigned its operations by eliminating its Transportation and Construction Solutions (TCS) segment and transferring the Forged Wheels business to its EP&F segment and the Building and Construction Systems business to its GRP segment, consistent with how the Chief Executive Officer is assessing operating performance and allocating capital in conjunction with the planned separation of the Company (see Note [S](#) to the Consolidated Financial Statements). The Latin American extrusions business, which was formerly part of the Company's TCS segment until its sale in April of 2018 (see Note [Q](#) to the Consolidated Financial Statements), was moved to Corporate. In the first quarter of 2019, management transferred its aluminum extrusions operations from its Engineered Structures business unit within the EP&F segment to the GRP segment, based on synergies with GRP including similar customer base, technologies, and manufacturing capabilities. Prior period financial information has been recast to conform to current year presentation.

Arconic produces aerospace engine parts and components, aerospace fastening systems, and aluminum sheet and plate products 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 revenues or segment operating profit in the third quarter. A significant reduction in the production rate could have a negative impact on revenues and segment operating profit in the fourth quarter of 2019 in the EP&F and GRP segments.

Engineered Products and Forgings

	Third quarter ended		Nine months ended	
	September 30,		September 30,	
	2019	2018	2019	2018
Third-party sales	\$ 1,794	\$ 1,683	\$ 5,372	\$ 5,083
Segment operating profit	363	284	1,036	837

Third-party sales for the Engineered Products and Forgings segment increased \$111, or 7%, in the third quarter of 2019 compared to the third quarter of 2018 and \$289, or 6%, in the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018, primarily as a result of higher aerospace and commercial transportation volumes and favorable product pricing, partially offset by unfavorable foreign currency movements and the absence of sales of \$7 and \$26 in the third quarter and nine months ended September 30, 2019, respectively, from the forgings business in Eger, Hungary (divested in December 2018).

Segment operating profit for the Engineered Products and Forgings segment increased \$79, or 28%, in the third quarter of 2019 compared to the third quarter of 2018 and \$199, or 24%, in the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018, due to higher volumes as noted previously, favorable product pricing, net cost savings, and lower raw material costs, partially offset by the unfavorable impact of new product introductions in aerospace engines and unfavorable product mix.

On December 31, 2018, as part of the Company's ongoing strategy and portfolio review, Arconic completed the sale of its Eger, Hungary forgings business to Angstrom Automotive Group LLC.

In the fourth quarter of 2019 compared to the fourth quarter of 2018, demand in the commercial aerospace end market is expected to remain strong, driven by the ramp-up of new aerospace engine platforms. Demand in the defense end market is expected to continue to grow due to the ramp-up of certain aerospace programs, while the commercial transportation end market is expected to be down. Net cost savings and favorable pricing are expected to continue.

Global Rolled Products

	Third quarter ended		Nine months ended	
	September 30,		September 30,	
	2019	2018	2019	2018
Third-party sales	\$ 1,763	\$ 1,839	\$ 5,415	\$ 5,468
Intersegment sales	41	44	142	161
Total sales	\$ 1,804	\$ 1,883	\$ 5,557	\$ 5,629
Segment operating profit	161	107	475	388
Third-party aluminum shipments (kmt)	351	330	1,049	982

Third-party sales for the Global Rolled Products segment decreased \$76, or 4%, in the third quarter of 2019 compared to the third quarter of 2018 and \$53, or 1%, in the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018, primarily as a result of lower aluminum prices; the absence of sales of \$37 and \$126 in the third quarter and nine months ended September 30, 2019, respectively, from the completed ramp down of Arconic's North American packaging operations (completed in December 2018); and unfavorable foreign currency movements; partially offset by higher volumes in the packaging, aerospace, and industrial end markets; and favorable product pricing and mix.

Segment operating profit for the Global Rolled Products segment increased \$54, or 50%, in the third quarter of 2019 compared to the third quarter of 2018 and \$87, or 22%, in the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018, due to favorable pricing adjustments on industrial and commercial transportation products, higher volumes as noted previously, favorable aluminum price impacts, and net cost savings, partially offset by operational challenges at one plant in the Aluminum Extrusions business and the Tennessee plant transition to industrial production. The nine months ended September 30, 2018 was also impacted by a charge related to a physical inventory adjustment at one plant incurred in 2018 that did not recur in 2019.

In the fourth quarter of 2019 compared to the fourth quarter of 2018, demand from the commercial airframe end market is expected to be up, while the automotive end market is expected to be down. Demand in the North American commercial

transportation end market is expected to be down, while growth is anticipated in the industrial market with the Tennessee transition from packaging. Favorable pricing and net productivity improvements are also anticipated to continue.

Reconciliation of Total segment operating profit to Consolidated income before income taxes

	Third quarter ended		Nine months ended	
	September 30,		September 30,	
	2019	2018	2019	2018
Total segment operating profit	\$ 524	\$ 391	\$ 1,511	\$ 1,225
Unallocated amounts:				
Restructuring and other charges	(119)	2	(630)	(20)
Corporate expense	(79)	(48)	(262)	(203)
Consolidated operating income	\$ 326	\$ 345	\$ 619	\$ 1,002
Interest expense	(86)	(88)	(256)	(291)
Other expense, net	(31)	(8)	(92)	(69)
Consolidated income before income taxes	\$ 209	\$ 249	\$ 271	\$ 642

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

Corporate expense increased \$31, or 65%, in the third quarter of 2019 compared to the third quarter of 2018 and \$59, or 29%, in the nine months ended September 30, 2019 compared to the nine months ended September 30, 2018, due to costs associated with the planned separation of Arconic of \$25 and \$44 in the third quarter and nine months ended September 30, 2019, respectively, higher annual incentive compensation accruals and executive compensation costs, and costs related to a fire at a fasteners plant of \$4 and \$8 in the third quarter and nine months ended September 30, 2019, respectively, partially offset by lower costs driven by overhead cost reductions, lower research and development expenses, and a decrease in legal and other advisory costs related to Grenfell Tower. The nine months ended September 30, 2019 also included the following costs: environmental remediation costs for Grasse River of \$25; collective bargaining agreement negotiation costs of \$9; impairment of energy business assets of \$9; and costs associated with the strategy and portfolio review of \$6. The nine months ended September 30, 2018 included costs of \$38 incurred in the second quarter of 2018 related to settlements of certain customer claims primarily related to product introductions.

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 [I](#) to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

Liquidity and Capital Resources

Operating Activities

Cash used for operations was \$100 in the nine months ended September 30, 2019 compared to \$209 in the nine months ended September 30, 2018. The decrease in cash used of \$109, or 52%, was primarily due to higher operating results, lower pension contributions of \$71, and a favorable change in noncurrent liabilities of \$46, partially offset by higher working capital of \$166. The components of the change in working capital included an unfavorable change of \$376 in accounts payable, partially offset by favorable changes of \$92 in inventories, \$63 in receivables, and \$29 in taxes, including income taxes.

Financing Activities

Cash used for financing activities was \$1,144 in the nine months ended September 30, 2019 compared to \$609 in the nine months ended September 30, 2018. The increase in cash used of \$535, or 88%, was primarily related to the repurchase of \$1,100 of common stock (see Note [H](#) to the Consolidated Financial Statements); partially offset by a decrease in payments on debt due to the redemption in the first quarter of 2018 of the then outstanding 5.72% Notes due in 2019 with aggregate principal amount of \$500; a decrease in dividends paid to shareholders of \$41; and premiums paid on early redemption of debt of \$17 in 2018.

On October 15, 2019, the 1.63% Convertible Notes (“the Notes”) matured in accordance with their terms and the Company repaid in cash on the maturity date the aggregate outstanding principal amount of the Notes of approximately \$403 together with accrued and unpaid interest, pursuant to the terms of the Notes.

Arconic 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, Arconic has a number of other credit agreements. See Note [Q](#) to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q for reference.

Arconic’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 Arconic by the major credit rating agencies.

Arconic’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 26, 2019
Moody’s	Ba2	Speculative Grade Liquidity-2	Stable	October 9, 2019
Fitch	BB+	B	Positive	October 8, 2019

Investing Activities

Cash provided from investing activities was \$288 in the nine months ended September 30, 2019 compared to \$211 in the nine months ended September 30, 2018. The increase in cash provided of \$77, or 36%, was primarily due to the sale of fixed-income securities of \$47 in the first quarter of 2019 and lower capital expenditures of \$82, partially offset by a decrease in cash receipts from sold receivables of \$63.

Recently Adopted and Recently Issued Accounting Guidance

See Note [B](#) 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 Arconic’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, defense, automotive, industrial, commercial transportation and other end markets; statements and guidance regarding future financial results or operating performance; statements regarding future strategic actions; and statements about Arconic’s strategies, outlook, business and financial prospects. These statements reflect beliefs and assumptions that are based on Arconic’s perception of historical trends, current conditions and expected future developments, as well as other factors Arconic 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) uncertainties regarding the planned separation, including whether it will be completed pursuant to the targeted timing, asset perimeters, and other anticipated terms, if at all; (b) the impact of the separation on the businesses of Arconic; (c) the risk that the businesses will not be separated successfully or such separation may be more difficult, time-consuming or costly than expected, which could result in additional demands on Arconic’s resources, systems, procedures and controls, disruption of its ongoing business, and diversion of management’s attention from other business concerns; (d) deterioration in global economic and financial market conditions generally; (e) unfavorable changes in the markets served by Arconic; (f) 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; (g) competition from new product offerings, disruptive technologies or other developments; (h) political, economic, and regulatory risks relating to Arconic’s global operations, including compliance with U.S. and foreign trade and tax laws, sanctions, embargoes and other regulations; (i) manufacturing difficulties or other issues that impact product performance, quality or safety; (j) Arconic’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; (k) the impact of potential cyber attacks and information technology or data security breaches; (l) the loss of significant customers or adverse changes in customers’ business or financial conditions; (m) adverse changes in discount rates or investment returns on pension assets; (n) the impact of changes in aluminum prices and foreign currency exchange rates on costs and results; (o) the outcome of contingencies, including legal proceedings, government or

regulatory investigations, and environmental remediation, which can expose Arconic to substantial costs and liabilities; and (p) the other risk factors summarized in Arconic's Form 10-K for the year ended December 31, 2018 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. Arconic 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

Arconic's Chief Executive Officer 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 third quarter of 2019 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 2. Unregistered Sales of Equity Securities and Use of Proceeds.

The following table presents information with respect to Arconic common stock purchases made by the Company during the quarter ended September 30, 2019.

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽¹⁾	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
July 1 - July 31, 2019	—	\$ —	—	\$ 600,000,000
August 1 - August 31, 2019 ⁽²⁾	6,791,172	\$ 25.73	6,791,172	\$ 400,000,000
September 1 - September 30, 2019 ⁽²⁾	—	\$ —	—	\$ 400,000,000
Total for quarter ended September 30, 2019	6,791,172		6,791,172	

⁽¹⁾ On February 5, 2018, the Company announced that its Board of Directors (the Board) had authorized the repurchase of up to \$500 million of the Company's outstanding common stock (the "February 2018 Share Repurchase Program"). There was no stated expiration for the February 2018 Share Repurchase Program, and no shares were repurchased during 2018. On February 8, 2019, the Company announced that the Board had authorized the repurchase of an additional \$500 million of the Company's outstanding common stock, effective through the end of 2020. On May 20, 2019, the Company announced that the Board had authorized the repurchase of a further \$500 million of the Company's outstanding common stock (the "May 2019 Share Repurchase Program"). There was no stated expiration for the May 2019 Share Repurchase Program.

⁽²⁾ On August 6, 2019, the Company entered into an accelerated share repurchase (ASR) agreement with Goldman Sachs & Co. LLC ("GS") to repurchase \$200 million of its common stock, and received an initial delivery of 6,791,172 shares. The term of the ASR concluded on September 30, 2019, with GS delivering 983,107 additional shares to Arconic on October 3, 2019. A total of 7,774,279 shares, at an average price of \$25.73 per share, were repurchased under the agreement.

Item 6. Exhibits.

15.	Letter regarding unaudited interim financial information.
31.	Certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.	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 September 30, 2019, 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.

Arconic Inc.

November 5, 2019 /s/ Ken Giacobbe

Date Ken Giacobbe
Executive Vice President and
Chief Financial Officer
(Principal Financial Officer)

November 5, 2019 /s/ Paul Myron

Date Paul Myron
Vice President and Controller
(Principal Accounting Officer)

November 5, 2019

Securities and Exchange Commission
100 F Street, N.E.
Washington, DC 20549

Commissioners:

We are aware that our report dated November 5, 2019 on our review of interim financial statements of Arconic Inc., which appears in this Quarterly Report on Form 10-Q, is incorporated by reference in the Registration Statements on Form S-8 (Nos. 333-32516, 333-106411, 333-128445, 333-146330, 333-153369, 333-155668, 333-159123, 333-168428, 333-170801, 333-182899, 333-189882, 333-203275, 333-209772, 333-212246, 333-229727, 333-229914 and 333-232219) of Arconic Inc.

Very truly yours,

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania

Certifications

I, John C. Plant, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Arconic 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: November 5, 2019

/s/ John C. Plant

John C. Plant

Chairman and Chief Executive Officer

I, Ken Giacobbe, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Arconic 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: November 5, 2019

/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 Arconic Inc., a Delaware corporation (the "Company"), does hereby certify that:

The Quarterly Report on Form 10-Q for the period ended September 30, 2019 (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:	November 5, 2019	<u>/s/ John C. Plant</u>
		John C. Plant
		Chairman and Chief Executive Officer

Dated:	November 5, 2019	<u>/s/ Ken Giacobbe</u>
		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.