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

# FORM 10-Q

**(Mark One)**

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

**For the Quarterly Period Ended June 30, 2021**

OR

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

**For the transition period from ____ to _____**

**Commission File Number 1-37816**

# ALCOA CORPORATION

**(Exact name of registrant as specified in its charter)**

| **Delaware** | **81-1789115** |
|---|---|
| **(State or other jurisdiction of incorporation or organization)** | **(I.R.S. Employer Identification No.)** |
| **201 Isabella Street, Suite 500, Pittsburgh, Pennsylvania** | **15212-5858** |
| **(Address of principal executive offices)** | **(Zip Code)** |

**412-315-2900**
**(Registrant's telephone number, including area code)**
**Not applicable**
**(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 $0.01 per share | AA | New York Stock Exchange |

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

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

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

| | | | |
|---|---|---|---|
| Large accelerated filer | ☒ | Accelerated filer | ☐ |
| Non-accelerated filer | ☐ | Smaller reporting company | ☐ |
| Emerging growth company | ☐ | | |

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

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

As of July 23, 2021, 186,866,156 shares of common stock, par value $0.01 per share, of the registrant were outstanding.

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**Forward-Looking Statements**

This report may contain 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," "intends," "may," "outlook," "plans," "projects," "seeks," "sees," "should," "targets," "will," "would," or other words of similar meaning. All statements by Alcoa Corporation that reflect expectations, assumptions or projections about the future, other than statements of historical fact, are forward-looking statements, including, without limitation, forecasts concerning global demand growth for bauxite, alumina, and aluminum, and supply/demand balances; statements, projections or forecasts of future or targeted financial results, or operating or sustainability performance; statements about strategies, outlook, and business and financial prospects; and statements about capital allocation and return of capital. These statements reflect beliefs and assumptions that are based on Alcoa Corporation's perception of historical trends, current conditions, and expected future developments, as well as other factors that management believes are appropriate in the circumstances. Forward-looking statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and changes in circumstances that are difficult to predict. Although Alcoa Corporation believes that the expectations reflected in any forward-looking statements are based on reasonable assumptions, it can give no assurance that these expectations will be attained and it is possible that actual results may differ materially from those indicated by these forward-looking statements due to a variety of risks and uncertainties. Such risks and uncertainties include, but are not limited to: (a) current and potential future impacts of the coronavirus (COVID-19) pandemic on the global economy and our business, financial condition, results of operations, or cash flows and judgments and assumptions used in our estimates; (b) material adverse changes in aluminum industry conditions, including global supply and demand conditions and fluctuations in London Metal Exchange-based prices and premiums, as applicable, for primary aluminum and other products, and fluctuations in indexed-based and spot prices for alumina; (c) deterioration in global economic and financial market conditions generally and which may also affect Alcoa Corporation's ability to obtain credit or financing upon acceptable terms or at all; (d) unfavorable changes in the markets served by Alcoa Corporation; (e) the impact of changes in foreign currency exchange and tax rates on costs and results; (f) increases in energy or raw material costs or uncertainty of energy supply or raw materials; (g) declines in the discount rates used to measure pension and other postretirement benefit liabilities or lower-than-expected investment returns on pension assets, or unfavorable changes in laws or regulations that govern pension plan funding; (h) the inability to achieve improvement in profitability and margins, cost savings, cash generation, revenue growth, fiscal discipline, sustainability targets, or strengthening of competitiveness and operations anticipated from portfolio actions, operational and productivity improvements, technology advancements, and other initiatives; (i) the inability to realize expected benefits, in each case as planned and by targeted completion dates, from acquisitions, divestitures, restructuring activities, facility closures, curtailments, restarts, expansions, or joint ventures; (j) political, economic, trade, legal, public health and safety, and regulatory risks in the countries in which Alcoa Corporation operates or sells products; (k) labor disputes and/or work stoppages; (l) the outcome of contingencies, including legal and tax proceedings, government or regulatory investigations, and environmental remediation; (m) the impact of cyberattacks and potential information technology or data security breaches; (n) risks associated with long-term debt obligations; and (o) the other risk factors discussed in Part I Item 1A of Alcoa Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2020 and other reports filed by Alcoa Corporation with the U.S. Securities and Exchange Commission. Alcoa Corporation disclaims any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law. Market projections are subject to the risks described above and other risks in the market.

**PART I – FINANCIAL INFORMATION**

**Item 1. Financial Statements.**

**Alcoa Corporation and Subsidiaries**
**Statement of Consolidated Operations (unaudited)**
**(in millions, except per-share amounts)**

| | Second quarter ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Sales (E) | $ 2,833 | $ 2,148 | $ 5,703 | $ 4,529 |
| Cost of goods sold (exclusive of expenses below) | 2,156 | 1,932 | 4,448 | 3,957 |
| Selling, general administrative, and other expenses | 54 | 44 | 106 | 104 |
| Research and development expenses | 6 | 5 | 13 | 12 |
| Provision for depreciation, depletion, and amortization | 161 | 152 | 343 | 322 |
| Restructuring and other charges, net (D) | 33 | 37 | 40 | 39 |
| Interest expense | 67 | 32 | 109 | 62 |
| Other (income) expenses, net (Q) | (105) | 51 | (129) | (81) |
| Total costs and expenses | 2,372 | 2,253 | 4,930 | 4,415 |
| Income (loss) before income taxes | 461 | (105) | 773 | 114 |
| Provision for income taxes | 111 | 45 | 204 | 125 |
| Net income (loss) | 350 | (150) | 569 | (11) |
| Less: Net income attributable to noncontrolling interest | 41 | 47 | 85 | 106 |
| NET INCOME (LOSS) ATTRIBUTABLE TO ALCOA CORPORATION | $ 309 | $ (197) | $ 484 | $ (117) |
| EARNINGS PER SHARE ATTRIBUTABLE TO ALCOA CORPORATION COMMON SHAREHOLDERS (F): | | | | |
| Basic | $ 1.66 | $ (1.06) | $ 2.60 | $ (0.63) |
| Diluted | $ 1.63 | $ (1.06) | $ 2.56 | $ (0.63) |

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

**Alcoa Corporation and Subsidiaries**
**Statement of Consolidated Comprehensive Income (unaudited)**
**(in millions)**

| | Alcoa Corporation | | Noncontrolling interest | | Total | |
|---|---|---|---|---|---|---|
| | Second quarter ended June 30, | | Second quarter ended June 30, | | Second quarter ended June 30, | |
| | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 |
| Net income (loss) | $ 309 | $ (197) | $ 41 | $ 47 | $ 350 | $ (150) |
| Other comprehensive income (loss), net of tax (G): | | | | | | |
| Change in unrecognized net actuarial loss and prior service cost/benefit related to pension and other postretirement benefits | 253 | (127) | 3 | 2 | 256 | (125) |
| Foreign currency translation adjustments | 204 | 135 | 51 | 94 | 255 | 229 |
| Net change in unrecognized gains/losses on cash flow hedges | (266) | (390) | 5 | (1) | (261) | (391) |
| Total Other comprehensive income (loss), net of tax | 191 | (382) | 59 | 95 | 250 | (287) |
| Comprehensive income (loss) | $ 500 | $ (579) | $ 100 | $ 142 | $ 600 | $ (437) |

| | Alcoa Corporation | | Noncontrolling interest | | Total | |
|---|---|---|---|---|---|---|
| | Six months ended June 30, | | Six months ended June 30, | | Six months ended June 30, | |
| | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 |
| Net income (loss) | $ 484 | $ (117) | $ 85 | $ 106 | $ 569 | $ (11) |
| Other comprehensive loss, net of tax (G): | | | | | | |
| Change in unrecognized net actuarial loss and prior service cost/benefit related to pension and other postretirement benefits | 384 | (89) | 4 | 2 | 388 | (87) |
| Foreign currency translation adjustments | 28 | (528) | (9) | (151) | 19 | (679) |
| Net change in unrecognized gains/losses on cash flow hedges | (470) | 311 | 2 | (21) | (468) | 290 |
| Total Other comprehensive loss, net of tax | (58) | (306) | (3) | (170) | (61) | (476) |
| Comprehensive income (loss) | $ 426 | $ (423) | $ 82 | $ (64) | $ 508 | $ (487) |

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

**Alcoa Corporation and Subsidiaries**
**Consolidated Balance Sheet (unaudited)**
**(in millions)**

| | June 30, 2021 | December 31, 2020 |
|---|---|---|
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents (M) | $ 1,652 | $ 1,607 |
| Receivables from customers (I) | 644 | 471 |
| Other receivables | 100 | 85 |
| Inventories (J) | 1,547 | 1,398 |
| Fair value of derivative instruments (M) | 25 | 21 |
| Assets held for sale (C) | — | 648 |
| Prepaid expenses and other current assets | 233 | 290 |
| Total current assets | 4,201 | 4,520 |
| Properties, plants, and equipment | 20,551 | 20,522 |
| Less: accumulated depreciation, depletion, and amortization | 13,575 | 13,332 |
| Properties, plants, and equipment, net | 6,976 | 7,190 |
| Investments (H) | 1,113 | 1,051 |
| Deferred income taxes | 729 | 655 |
| Fair value of derivative instruments (M) | 3 | — |
| Other noncurrent assets | 1,416 | 1,444 |
| Total assets | $ 14,438 | $ 14,860 |
| LIABILITIES | | |
| Current liabilities: | | |
| Accounts payable, trade | $ 1,392 | $ 1,403 |
| Accrued compensation and retirement costs | 378 | 395 |
| Taxes, including income taxes | 126 | 91 |
| Fair value of derivative instruments (M) | 236 | 103 |
| Liabilities held for sale (C) | — | 242 |
| Other current liabilities | 538 | 525 |
| Long-term debt due within one year (K & M) | 1 | 2 |
| Total current liabilities | 2,671 | 2,761 |
| Long-term debt, less amount due within one year (K & M) | 2,216 | 2,463 |
| Accrued pension benefits (L) | 682 | 1,492 |
| Accrued other postretirement benefits (L) | 661 | 744 |
| Asset retirement obligations | 584 | 625 |
| Environmental remediation (P) | 262 | 293 |
| Fair value of derivative instruments (M) | 1,203 | 742 |
| Noncurrent income taxes | 191 | 209 |
| Other noncurrent liabilities and deferred credits | 550 | 515 |
| Total liabilities | 9,020 | 9,844 |
| CONTINGENCIES AND COMMITMENTS (P) | | |
| EQUITY | | |
| Alcoa Corporation shareholders' equity: | | |
| Common stock | 2 | 2 |
| Additional capital | 9,695 | 9,663 |
| Accumulated deficit | (241) | (725) |
| Accumulated other comprehensive loss (G) | (5,687) | (5,629) |
| Total Alcoa Corporation shareholders' equity | 3,769 | 3,311 |
| Noncontrolling interest | 1,649 | 1,705 |
| Total equity | 5,418 | 5,016 |
| Total liabilities and equity | $ 14,438 | $ 14,860 |

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

**Alcoa Corporation and Subsidiaries**
**Statement of Consolidated Cash Flows (unaudited)**
**(in millions)**

| | Six months ended June 30, | |
|---|---|---|
| | **2021** | **2020** |
| CASH FROM OPERATIONS | | |
| Net income (loss) | $ 569 | $ (11) |
| Adjustments to reconcile net income to cash from operations: | | |
| Depreciation, depletion, and amortization | 343 | 322 |
| Deferred income taxes | 48 | (6) |
| Equity earnings, net of dividends | (46) | 15 |
| Restructuring and other charges, net (D) | 40 | 39 |
| Net gain from investing activities – asset sales (Q) | (124) | (176) |
| Net periodic pension benefit cost (L) | 24 | 67 |
| Stock-based compensation | 18 | 17 |
| Provision for bad debt expense | 1 | 2 |
| Premium paid on early redemption of debt | 25 | — |
| Other | 28 | 5 |
| Changes in assets and liabilities, excluding effects of divestitures and foreign currency translation adjustments: | | |
| (Increase) Decrease in receivables | (270) | 124 |
| (Increase) Decrease in inventories | (184) | 184 |
| Decrease in prepaid expenses and other current assets | 58 | 13 |
| Increase (Decrease) in accounts payable, trade | 32 | (183) |
| (Decrease) in accrued expenses | (20) | (120) |
| Increase in taxes, including income taxes | 40 | 7 |
| Pension contributions (L) | (570) | (59) |
| (Increase) Decrease in noncurrent assets | (34) | 19 |
| (Decrease) in noncurrent liabilities | (58) | (61) |
| CASH (USED FOR) PROVIDED FROM OPERATIONS | (80) | 198 |
| FINANCING ACTIVITIES | | |
| Additions to debt (original maturities greater than three months) | 495 | — |
| Payments on debt (original maturities greater than three months) | (776) | — |
| Proceeds from the exercise of employee stock options | 14 | — |
| Financial contributions for the divestiture of businesses (D) | (13) | (24) |
| Contributions from noncontrolling interest | — | 16 |
| Distributions to noncontrolling interest | (137) | (106) |
| Other | (4) | (1) |
| CASH USED FOR FINANCING ACTIVITIES | (421) | (115) |
| INVESTING ACTIVITIES | | |
| Capital expenditures | (154) | (168) |
| Proceeds from the sale of assets | 705 | 199 |
| Additions to investments | (3) | (3) |
| CASH PROVIDED FROM INVESTING ACTIVITIES | 548 | 28 |
| EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS AND RESTRICTED CASH | (2) | (26) |
| Net change in cash and cash equivalents and restricted cash | 45 | 85 |
| Cash and cash equivalents and restricted cash at beginning of year | 1,610 | 883 |
| CASH AND CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD | $ 1,655 | $ 968 |

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

**Alcoa Corporation and Subsidiaries**
**Statement of Changes in Consolidated Equity (unaudited)**
**(in millions)**

| | Alcoa Corporation shareholders | | | | | |
|---|---|---|---|---|---|---|
| **Second quarter ended June 30, 2020** | **Common stock** | **Additional capital** | **Retained earnings (deficit)** | **Accumulated other comprehensive loss** | **Non-controlling interest** | **Total equity** |
| **Balance at March 31, 2020** | $ 2 | $ 9,647 | $ (476) | $ (4,898) | $ 1,536 | $ 5,811 |
| Net (loss) income | — | — | (197) | — | 47 | (150) |
| Other comprehensive (loss) income (G) | — | — | — | (382) | 95 | (287) |
| Stock-based compensation | — | 9 | — | — | — | 9 |
| Contributions | — | — | — | — | 16 | 16 |
| Distributions | — | — | — | — | (75) | (75) |
| Other | — | (1) | 1 | — | — | — |
| **Balance at June 30, 2020** | $ 2 | $ 9,655 | $ (672) | $ (5,280) | $ 1,619 | $ 5,324 |
| | | | | | | |
| **Second quarter ended June 30, 2021** | | | | | | |
| **Balance at March 31, 2021** | $ 2 | $ 9,674 | $ (550) | $ (5,878) | $ 1,625 | $ 4,873 |
| Net income | — | — | 309 | — | 41 | 350 |
| Other comprehensive loss (G) | — | — | — | 191 | 59 | 250 |
| Stock-based compensation | — | 10 | — | — | — | 10 |
| Common stock issued: compensation plans | — | 10 | — | — | — | 10 |
| Distributions | — | — | — | — | (75) | (75) |
| Other | — | 1 | — | — | (1) | — |
| **Balance at June 30, 2021** | $ 2 | $ 9,695 | $ (241) | $ (5,687) | $ 1,649 | $ 5,418 |
| | | | | | | |
| **Six months ended June 30, 2020** | | | | | | |
| **Balance at December 31, 2019** | $ 2 | $ 9,639 | $ (555) | $ (4,974) | $ 1,774 | $ 5,886 |
| Net (loss) income | — | — | (117) | — | 106 | (11) |
| Other comprehensive loss (G) | — | — | — | (306) | (170) | (476) |
| Stock-based compensation | — | 17 | — | — | — | 17 |
| Contributions | — | — | — | — | 16 | 16 |
| Distributions | — | — | — | — | (106) | (106) |
| Other | — | (1) | — | — | (1) | (2) |
| **Balance at June 30, 2020** | $ 2 | $ 9,655 | $ (672) | $ (5,280) | $ 1,619 | $ 5,324 |
| | | | | | | |
| **Six months ended June 30, 2021** | | | | | | |
| **Balance at December 31, 2020** | $ 2 | $ 9,663 | $ (725) | $ (5,629) | $ 1,705 | $ 5,016 |
| Net income | — | — | 484 | — | 85 | 569 |
| Other comprehensive loss (G) | — | — | — | (58) | (3) | (61) |
| Stock-based compensation | — | 18 | — | — | — | 18 |
| Common stock issued: compensation plans | — | 14 | — | — | — | 14 |
| Distributions | — | — | — | — | (137) | (137) |
| Other | — | — | — | — | (1) | (1) |
| **Balance at June 30, 2021** | $ 2 | $ 9,695 | $ (241) | $ (5,687) | $ 1,649 | $ 5,418 |

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

**A. Basis of Presentation** – The interim Consolidated Financial Statements of Alcoa Corporation and its subsidiaries (Alcoa Corporation, Alcoa, 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 2020 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 Quarterly Report on Form 10-Q should be read in conjunction with the Company's Annual Report on Form 10-K for the year ended December 31, 2020, which includes all disclosures required by GAAP.

In accordance with GAAP, certain situations require management to make estimates based on judgments and assumptions, which may affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements. They also may affect the reported amounts of revenues and expenses during the reporting periods. Management uses historical experience and all available information to make these estimates, including considerations for the impact of the coronavirus (COVID-19) pandemic on the macroeconomic environment. The COVID-19 pandemic could adversely impact estimates made as of June 30, 2021 regarding future results, such as the recoverability of goodwill and long-lived assets and the realizability of deferred tax assets. Despite these inherent limitations, management believes that the amounts recorded in the financial statements related to these items are based on its best estimates and judgments using all relevant information available at the time. Management regularly evaluates the judgments and assumptions used in its estimates, and results could differ from those estimates upon future events and their effects or new information.

References in these Notes to ParentCo refer to Alcoa Inc., a Pennsylvania corporation, and its consolidated subsidiaries through October 31, 2016, at which time it was renamed Arconic Inc. (Arconic) and since has been subsequently renamed Howmet Aerospace Inc. On November 1, 2016 (the Separation Date), ParentCo separated into two standalone, publicly-traded companies, Alcoa Corporation and Arconic Inc. (the Separation Transaction). See Note A to the Consolidated Financial Statements in Part II Item 8 of Alcoa Corporation's Annual Report on Form 10-K for the year ended December 31, 2020 for additional information.

**Principles of Consolidation.** The Consolidated Financial Statements of Alcoa Corporation include the accounts of Alcoa Corporation and companies in which Alcoa Corporation has a controlling interest, including those that comprise the Alcoa World Alumina & Chemicals (AWAC) joint venture (see below). Intercompany transactions have been eliminated. The equity method of accounting is used for investments in affiliates and other joint ventures over which Alcoa Corporation has significant influence but does not have effective control. Investments in affiliates in which Alcoa Corporation cannot exercise significant influence are accounted for using the cost method.

AWAC is an unincorporated global joint venture between Alcoa Corporation and Alumina Limited and consists of several affiliated operating entities, which own, or have an interest in, or operate the bauxite mines and alumina refineries within Alcoa Corporation's Bauxite and Alumina segments (except for the Poços de Caldas mine and refinery, portions of the São Luís refinery, and investment in Mineração Rio do Norte S.A., all in Brazil) and the Portland smelter in Australia within Alcoa Corporation's Aluminum segment. Alcoa Corporation and Alumina Limited ultimately own 60% and 40%, respectively, of the AWAC individual entities, which are consolidated by the Company for financial reporting purposes and include Alcoa of Australia Limited (AofA), Alcoa World Alumina LLC (AWA), and Alcoa World Alumina Brasil Ltda. (AWAB). Alumina Limited's interest in the equity of such entities is reflected as Noncontrolling interest on the accompanying Consolidated Balance Sheet.

**B. Recently Adopted and Recently Issued Accounting Guidance**

Adopted

On January 1, 2021, the Company adopted the following Accounting Standard Updates (ASU) issued by the Financial Accounting Standard Board (FASB), none of which had a material impact on the Company's Consolidated Financial Statements:

- ASU No. 2019-12, Income Taxes (Topic 740); and,
- ASU No. 2020-03, Codification Improvements to Financial Instruments.

Issued

In March 2020, the FASB issued ASU No. 2020-04 to provide optional guidance for a limited period of time to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. Management is currently evaluating the impact of the replacement of the London Interbank Offered Rate (LIBOR) as well as the impact that the expected adoption of the applicable provisions within the optional guidance will have on the Consolidated Financial Statements. The adoption of the applicable provisions will coincide with the modifications of the affected contracts.

**C. Divestitures**

Eastalco Land Sale

In June 2021, the Company completed the sale of the previously closed Eastalco Aluminum smelter site in the state of Maryland in a transaction valued at $100. Upon closing of the transaction, the Company received $94 in cash and recorded a gain of $90 in Other (income) expenses, net ($90 pre- and $89 after-tax; see Note Q) on the Statement of Consolidated Operations.

Warrick Rolling Mill

On November 30, 2020, Alcoa entered into an agreement to sell its rolling mill located at Warrick Operations (Warrick Rolling Mill), an integrated aluminum manufacturing site near Evansville, Indiana (Warrick Operations), to Kaiser Aluminum Corporation (Kaiser). At December 31, 2020, the Company had assets and liabilities held for sale of $648 and $242, respectively, related to the transaction.

On March 31, 2021, Alcoa completed the sale for total consideration of approximately $670, which includes the assumption of $66 in other postretirement benefit liabilities (after a post-closing adjustment that lowered the amount by $6 in the second quarter 2021). Additionally, as of March 31, 2021, the Company incurred transaction costs of $7. The Company recorded a gain of $27 in Other (income) expenses, net (pre- and after-tax) on the Statement of Consolidated Operations in the first quarter of 2021 (see Note Q). The consideration and gain amounts are subject to further customary post-closing adjustments. Further, the Company recorded estimated liabilities of approximately $70 in the first quarter of 2021 for future site separation commitments and remaining transaction costs associated with the sale agreement. During the second quarter of 2021, the Company recorded an additional net gain of $3 in Other (income) expenses, net related to working capital, other postretirement benefit liabilities, and site separation costs.

Alcoa entered into a market-based metal supply agreement with Kaiser in connection with the transaction. Alcoa also entered into a ground lease agreement with Kaiser for the Warrick Rolling Mill property, which Alcoa continues to own. Approximately 1,150 employees at Warrick Rolling Mill, which includes the casthouse, hot mill, cold mills, and coating and slitting lines, became employees of Kaiser as a result of the transaction. Alcoa continues to own and operate the site's 269,000 metric ton per year aluminum smelter and the power plant, which together employ approximately 670 people. The remaining Warrick Operations site results are included within the Aluminum segment.

Gum Springs Waste Treatment Business

During the first quarter of 2020, the Company sold Elemental Environmental Solutions LLC (EES), a wholly-owned Alcoa subsidiary that operated the waste processing facility in Gum Springs, Arkansas, to a global environmental firm in a transaction valued at $250. During 2020, the Company received $200 in cash and recorded a total gain of $181 (pre- and after-tax; see Note Q). Further, an additional $50 is held in escrow to be paid to Alcoa if certain post-closing conditions are satisfied, which would result in an additional gain being recorded.

**D. Restructuring and Other Charges, Net**– In the second quarter and six-month period of 2021, Alcoa Corporation recorded Restructuring and other charges, net, of $33 and $40, respectively, which were comprised of the following components:

- A charge of $39 (both periods) related to the settlement of certain pension benefits (see Note L);
- A reversal of $5 (both periods) due to lower costs for waste treatment at a previously closed Suriname site;
- A reversal of $5 (both periods) due to lower costs for site remediation related to a previously closed site in Brazil;
- A charge of $3 and $9, respectively, for additional take or pay contract costs related to the curtailed Wenatchee (Washington) and Intalco (Washington) smelters;
- A net charge of $9 (six-month period only) related to the settlement and curtailment of certain other postretirement benefits resulting from the sale of the Warrick Rolling Mill (see Note L);

- A $12 reversal (six-month period only) of remaining environmental and asset retirement obligation reserves at a previously closed Tennessee site due to the completion of demolition and the determination that remaining site remediation is no longer required (see Note P). The reserves were originally established through a restructuring charge upon closure of the site; and,
- A net charge of $1 and $5, respectively, for several other insignificant items.

In the second quarter and six-month period of 2020, Alcoa Corporation recorded Restructuring and other charges, net, of $37 and $39, respectively, which were primarily comprised of costs related to the curtailment of the Intalco (Washington) smelter of $27 (both periods), and $11 and $13, respectively, for additional contract costs related to the curtailed Wenatchee (Washington) smelter, in addition to several insignificant items including impacts related to pension curtailments.

Alcoa Corporation does not include Restructuring and other charges, net in the results of its reportable segments. The impact of allocating such charges to segment results would have been as follows:

| | Second quarter ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Bauxite | $ — | $ — | $ — | $ — |
| Alumina | — | — | — | 2 |
| Aluminum | 3 | 37 | 18 | 39 |
| Segment total | 3 | 37 | 18 | 41 |
| Corporate | 30 | — | 22 | (2) |
| Total Restructuring and other charges, net | $ 33 | $ 37 | $ 40 | $ 39 |

During 2019, the Company completed the divestiture of the Avilés and La Coruña (Spain) aluminum facilities to PARTER Capital Group AG (PARTER) in a sale process endorsed by the Spanish government and supported by the workers' representatives. In 2020, PARTER sold its majority stake in the facilities to an unrelated party. The Company had no knowledge of the subsequent transaction prior to its announcement, and has filed a lawsuit asserting that the sale was in breach of the sale agreement between Alcoa and PARTER (see Note P).

As a result of the divestiture, a restructuring reserve of $30 remained at December 31, 2020 related to financial contributions to the divested entities pursuant to the sale agreement. In the second quarter and six-month period of 2021, cash payments of $7 and $13, respectively, were made against the reserve. In accordance with the terms of the agreement, payments against the restructuring reserve may be made through the fourth quarter of 2021. These payments are dependent upon the divested entities meeting certain capital expenditure obligations.

Activity and reserve balances for restructuring charges were as follows:

| | Severance and employee termination costs | Other costs | Total |
|---|---|---|---|
| **Balance at December 31, 2019** | $ 35 | $ 102 | $ 137 |
| Restructuring and other charges, net | 16 | 36 | 52 |
| Cash payments | (41) | (79) | (120) |
| Reversals and other | (4) | (2) | (6) |
| **Balance at December 31, 2020** | 6 | 57 | 63 |
| Restructuring and other charges, net | — | 10 | 10 |
| Cash payments | (3) | (21) | (24) |
| Reversals and other | — | — | — |
| **Balance at June 30, 2021** | $ 3 | $ 46 | $ 49 |

The activity and reserve balances include only Restructuring and other charges, net that impact the reserves for Severance and employee termination costs and Other costs. Restructuring and other charges, net that affected other liability accounts such as environmental obligations (see Note P), asset retirement obligations, and pension and other postretirement reserves (see Note L) are excluded from the above activity and balances. Reversals and other includes reversals of previously recorded liabilities and foreign currency translation impacts.

The noncurrent portion of the reserve was $1 at both June 30, 2021 and December 31, 2020.

**E. Segment Information** – Alcoa Corporation is a producer of bauxite, alumina, and aluminum products. The Company's operations consist of three worldwide reportable segments: Bauxite, Alumina, and Aluminum. Segment performance under Alcoa Corporation's management reporting system is evaluated based on a number of factors; however, the primary measure of performance is the Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) of each segment. The Company calculates Segment Adjusted EBITDA as Total sales (third-party and intersegment) minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; and Research and development expenses. Alcoa Corporation believes that the presentation of Adjusted EBITDA is useful to investors because such measure provides both additional information about the operating performance of Alcoa Corporation and insight on the ability of Alcoa Corporation to meet its financial obligations. The presentation of Adjusted EBITDA is not intended to be a substitute for, and should not be considered in isolation from, the financial measures reported in accordance with GAAP. Alcoa Corporation's Adjusted EBITDA may not be comparable to similarly titled measures of other companies.

The operating results of Alcoa Corporation's reportable segments were as follows (differences between segment totals and consolidated amounts are in Corporate):

| | Bauxite | Alumina | Aluminum | Total |
|---|---|---|---|---|
| **Second quarter ended June 30, 2021** | | | | |
| Sales: | | | | |
| Third-party sales | $ 39 | $ 688 | $ 2,102 | $ 2,829 |
| Intersegment sales | 179 | 343 | 3 | 525 |
| Total sales | $ 218 | $ 1,031 | $ 2,105 | $ 3,354 |
| Segment Adjusted EBITDA | $ 41 | $ 124 | $ 460 | $ 625 |
| Supplemental information: | | | | |
| Depreciation, depletion, and amortization | $ 32 | $ 50 | $ 73 | $ 155 |
| Equity (loss) income | $ — | $ (1) | $ 28 | $ 27 |
| **Second quarter ended June 30, 2020** | | | | |
| Sales: | | | | |
| Third-party sales | $ 66 | $ 603 | $ 1,475 | $ 2,144 |
| Intersegment sales | 245 | 289 | 2 | $ 536 |
| Total sales | $ 311 | $ 892 | $ 1,477 | $ 2,680 |
| Segment Adjusted EBITDA | $ 131 | $ 88 | $ (34) | $ 185 |
| Supplemental information: | | | | |
| Depreciation, depletion, and amortization | $ 30 | $ 37 | $ 79 | $ 146 |
| Equity loss | $ — | $ (8) | $ (12) | $ (20) |

| | Bauxite | Alumina | Aluminum | Total |
|---|---|---|---|---|
| **Six months ended June 30, 2021** | | | | |
| Sales: | | | | |
| Third-party sales | $ 97 | $ 1,448 | $ 4,149 | $ 5,694 |
| Intersegment sales | 364 | 707 | 5 | 1,076 |
| Total sales | $ 461 | $ 2,155 | $ 4,154 | $ 6,770 |
| Segment Adjusted EBITDA | $ 100 | $ 351 | $ 743 | $ 1,194 |
| Supplemental information: | | | | |
| Depreciation, depletion, and amortization | $ 89 | $ 96 | $ 146 | $ 331 |
| Equity (loss) income | — | (6) | 41 | 35 |
| **Six months ended June 30, 2020** | | | | |
| Sales: | | | | |
| Third-party sales | $ 137 | $ 1,310 | $ 3,073 | $ 4,520 |
| Intersegment sales | 480 | 625 | 5 | 1,110 |
| Total sales | $ 617 | $ 1,935 | $ 3,078 | $ 5,630 |
| Segment Adjusted EBITDA | $ 251 | $ 281 | $ 28 | $ 560 |
| Supplemental information: | | | | |
| Depreciation, depletion, and amortization | $ 64 | $ 86 | $ 160 | $ 310 |
| Equity loss | — | (17) | (7) | (24) |

The following table reconciles total Segment Adjusted EBITDA to Consolidated net income (loss) attributable to Alcoa Corporation:

| | Second quarter ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Total Segment Adjusted EBITDA | $ 625 | $ 185 | $ 1,194 | $ 560 |
| Unallocated amounts: | | | | |
| Transformation[1] | (13) | (10) | (24) | (26) |
| Intersegment eliminations | 35 | 30 | 28 | 22 |
| Corporate expenses[2] | (28) | (21) | (54) | (48) |
| Provision for depreciation, depletion, and amortization | (161) | (152) | (343) | (322) |
| Restructuring and other charges, net (D) | (33) | (37) | (40) | (39) |
| Interest expense | (67) | (32) | (109) | (62) |
| Other income (expenses), net (Q) | 105 | (51) | 129 | 81 |
| Other[3] | (2) | (17) | (8) | (52) |
| Consolidated income (loss) before income taxes | 461 | (105) | 773 | 114 |
| Provision for income taxes | (111) | (45) | (204) | (125) |
| Net income attributable to noncontrolling interest | (41) | (47) | (85) | (106) |
| Consolidated net income (loss) attributable to Alcoa Corporation | $ 309 | $ (197) | $ 484 | $ (117) |

(1) Transformation includes, among other items, the Adjusted EBITDA of previously closed operations.

(2) Corporate expenses are composed of general administrative and other expenses of operating the corporate headquarters and other global administrative facilities, as well as research and development expenses of the corporate technical center.

(3) Other includes certain items that impact Cost of goods sold on Alcoa Corporation's Statement of Consolidated Operations that are not included in the Adjusted EBITDA of the reportable segments.

The following table details Alcoa Corporation's Sales by product division:

| | Second quarter ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Primary aluminum | $ 2,112 | $ 1,202 | $ 3,839 | $ 2,499 |
| Alumina | 684 | 600 | 1,444 | 1,307 |
| Flat-rolled aluminum[1] | — | 271 | 320 | 543 |
| Energy | 49 | 22 | 88 | 74 |
| Bauxite | 34 | 61 | 86 | 120 |
| Other[2] | (46) | (8) | (74) | (14) |
| | $ 2,833 | $ 2,148 | $ 5,703 | $ 4,529 |

(1) Flat-rolled aluminum represented sales of the Warrick Rolling Mill through the sale of the facility on March 31, 2021 (see Note C).

(2) Other includes realized gains and losses related to embedded derivative instruments designated as cash flow hedges of forward sales of aluminum.

**F. Earnings Per Share** – Basic earnings per share (EPS) amounts are computed by dividing earnings 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 Alcoa Corporation common shareholders was as follows (shares in millions):

| | Second quarter ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Net income (loss) attributable to Alcoa Corporation | $ 309 | $ (197) | $ 484 | $ (117) |
| Average shares outstanding – basic | 187 | 186 | 186 | 186 |
| Effect of dilutive securities: | | | | |
| Stock options | — | — | — | — |
| Stock units | 3 | — | 3 | — |
| Average shares outstanding – diluted | 190 | 186 | 189 | 186 |

Options to purchase less than one million shares of common stock outstanding at June 30, 2021 were excluded because they had a weighted average exercise price of $44.11 per share which was greater than the average market price of Alcoa Corporation's common stock.

In the second quarter and six-month period of 2020, basic average shares outstanding and diluted average shares outstanding were the same because the effect of potential shares of common stock was anti-dilutive. Had Alcoa generated net income in the second quarter or six-month period of 2020, one million common share equivalents related to six million outstanding stock units and stock options combined would have been included in diluted average shares outstanding for the periods. Options to purchase two million shares of common stock outstanding at June 30, 2020 were excluded because they had a weighted average exercise price of $26.45 per share which was greater than the average market price of Alcoa Corporation's common stock.

**G. Accumulated Other Comprehensive Loss**

The following table details the activity of the three components that comprise Accumulated other comprehensive loss for both Alcoa Corporation's shareholders and Noncontrolling interest:

| | Alcoa Corporation | | Noncontrolling interest | |
|---|---|---|---|---|
| | Second quarter ended June 30, | | Second quarter ended June 30, | |
| | 2021 | 2020 | 2021 | 2020 |
| **Pension and other postretirement benefits (L)** | | | | |
| Balance at beginning of period | $ (2,405) | $ (2,244) | $ (66) | $ (56) |
| Other comprehensive income (loss): | | | | |
| Unrecognized net actuarial loss and prior service cost/benefit | 164 | (181) | 2 | 1 |
| Tax benefit | — | 4 | — | — |
| Total Other comprehensive income (loss) before reclassifications, net of tax | 164 | (177) | 2 | 1 |
| Amortization of net actuarial loss and prior service cost/benefit(1) | 89 | 52 | 1 | 1 |
| Tax expense(2) | — | (2) | — | — |
| Total amount reclassified from Accumulated other comprehensive loss, net of tax(7) | 89 | 50 | 1 | 1 |
| Total Other comprehensive income (loss) | 253 | (127) | 3 | 2 |
| Balance at end of period | $ (2,152) | $ (2,371) | $ (63) | $ (54) |
| | | | | |
| **Foreign currency translation** | | | | |
| Balance at beginning of period | $ (2,561) | $ (2,823) | $ (904) | $ (1,079) |
| Other comprehensive income(3) | 204 | 135 | 51 | 94 |
| Balance at end of period | $ (2,357) | $ (2,688) | $ (853) | $ (985) |
| | | | | |
| **Cash flow hedges (M)** | | | | |
| Balance at beginning of period | $ (912) | $ 169 | $ (4) | $ — |
| Other comprehensive (loss) income: | | | | |
| Net change from periodic revaluations | (397) | (513) | 9 | (4) |
| Tax benefit (expense) | 75 | 112 | (3) | 1 |
| Total Other comprehensive (loss) income before reclassifications, net of tax | (322) | (401) | 6 | (3) |
| Net amount reclassified to earnings: | | | | |
| Aluminum contracts(4) | 72 | 1 | — | — |
| Financial contracts(5) | (4) | 4 | (2) | 3 |
| Interest rate contracts(6) | 1 | 1 | — | — |
| Foreign exchange contracts(4) | (2) | 7 | — | — |
| Sub-total | 67 | 13 | (2) | 3 |
| Tax (expense) benefit(2) | (11) | (2) | 1 | (1) |
| Total amount reclassified from Accumulated other comprehensive loss, net of tax(7) | 56 | 11 | (1) | 2 |
| Total Other comprehensive (loss) income | (266) | (390) | 5 | (1) |
| Balance at end of period | $ (1,178) | $ (221) | $ 1 | (1) |
| | | | | |
| Total Accumulated other comprehensive loss | $ (5,687) | $ (5,280) | $ (915) | $ (1,040) |

| | Alcoa Corporation | | Noncontrolling interest | |
|---|---|---|---|---|
| | Six months ended June 30, | | Six months ended June 30, | |
| | 2021 | 2020 | 2021 | 2020 |
| **Pension and other postretirement benefits (L)** | | | | |
| Balance at beginning of period | $ (2,536) | $ (2,282) | $ (67) | $ (56) |
| Other comprehensive income (loss): | | | | |
| Unrecognized net actuarial loss and prior service cost/benefit | 233 | (201) | 2 | — |
| Tax benefit | 2 | 10 | — | — |
| Total Other comprehensive income (loss) before reclassifications, net of tax | 235 | (191) | 2 | — |
| Amortization of net actuarial loss and prior service cost/benefit(1) | 150 | 106 | 2 | 2 |
| Tax expense(2) | (1) | (4) | — | — |
| Total amount reclassified from Accumulated other comprehensive loss, net of tax(7) | 149 | 102 | 2 | 2 |
| Total Other comprehensive income (loss) | 384 | (89) | 4 | 2 |
| Balance at end of period | $ (2,152) | $ (2,371) | $ (63) | $ (54) |
| | | | | |
| **Foreign currency translation** | | | | |
| Balance at beginning of period | $ (2,385) | $ (2,160) | $ (844) | $ (834) |
| Other comprehensive income (loss)(3) | 28 | (528) | (9) | (151) |
| Balance at end of period | $ (2,357) | $ (2,688) | $ (853) | $ (985) |
| | | | | |
| **Cash flow hedges (M)** | | | | |
| Balance at beginning of period | $ (708) | $ (532) | $ (1) | $ 20 |
| Other comprehensive (loss) income: | | | | |
| Net change from periodic revaluations | (700) | 339 | (1) | (30) |
| Tax benefit (expense) | 131 | (63) | — | 8 |
| Total Other comprehensive (loss) income before reclassifications, net of tax | (569) | 276 | (1) | (22) |
| Net amount reclassified to earnings: | | | | |
| Aluminum contracts(4) | 113 | 14 | — | — |
| Financial contracts(5) | 5 | 7 | 4 | 1 |
| Interest rate contracts(6) | 4 | 2 | — | — |
| Foreign exchange contracts(4) | (3) | 15 | — | — |
| Sub-total | 119 | 38 | 4 | 1 |
| Tax (expense) benefit(2) | (20) | (3) | (1) | — |
| Total amount reclassified from Accumulated other comprehensive loss, net of tax(7) | 99 | 35 | 3 | 1 |
| Total Other comprehensive (loss) income | (470) | 311 | 2 | (21) |
| Balance at end of period | $ (1,178) | $ (221) | $ 1 | $ (1) |
| | | | | |
| Total Accumulated other comprehensive loss | $ (5,687) | $ (5,280) | $ (915) | $ (1,040) |

(1) These amounts were included in the computation of net periodic benefit cost for pension and other postretirement benefits (see Note L).
(2) These amounts were reported in Provision for income taxes on the accompanying Statement of Consolidated Operations.
(3) In all periods presented, there were no tax impacts related to rate changes and no amounts were reclassified to earnings.
(4) These amounts were primarily reported in Sales on the accompanying Statement of Consolidated Operations.
(5) These amounts were reported in Cost of goods sold on the accompanying Statement of Consolidated Operations.
(6) These amounts were reported in Other (income) expenses, net of the accompanying Statement of Consolidated Operations.
(7) A positive amount indicates a corresponding charge to earnings and a negative amount indicates a corresponding benefit to earnings.

**H. Investments**– A summary of unaudited financial information for Alcoa Corporation's equity investments is as follows (amounts represent 100% of investee financial information):

| Second quarter ended June 30, 2021 | Saudi Arabia Joint Venture | Mining | Energy | Other |
|---|---|---|---|---|
| Sales | $ 741 | $ 197 | $ 60 | $ 96 |
| Cost of goods sold | 508 | 146 | 32 | 78 |
| Net income (loss) | 102 | 25 | 27 | (4) |
| Equity in net income (loss) of affiliated companies, before reconciling adjustments | 26 | 9 | 11 | (2) |
| Other | — | (1) | — | 8 |
| Alcoa Corporation's equity in net income of affiliated companies | 26 | 8 | 11 | 6 |

| Second quarter ended June 30, 2020 | | | | |
|---|---|---|---|---|
| Sales | $ 507 | $ 209 | $ 47 | $ 85 |
| Cost of goods sold | 446 | 130 | 24 | 75 |
| Net (loss) income | (75) | (5) | 20 | (6) |
| Equity in net (loss) income of affiliated companies, before reconciling adjustments | (19) | 3 | 7 | (3) |
| Other | (1) | 2 | 1 | 5 |
| Alcoa Corporation's equity in net (loss) income of affiliated companies | (20) | 5 | 8 | 2 |

| Six months ended June 30, 2021 | | | | |
|---|---|---|---|---|
| Sales | $ 1,423 | $ 370 | $ 115 | $ 191 |
| Cost of goods sold | 1,011 | 269 | 57 | 171 |
| Net income (loss) | 147 | 20 | 52 | (6) |
| Equity in net income (loss) of affiliated companies, before reconciling adjustments | 37 | 10 | 21 | (3) |
| Other | (4) | (1) | — | 11 |
| Alcoa Corporation's equity in net income of affiliated companies | 33 | 9 | 21 | 8 |

| Six months ended June 30, 2020 | | | | |
|---|---|---|---|---|
| Sales | $ 1,092 | $ 427 | $ 106 | $ 158 |
| Cost of goods sold | 908 | 278 | 50 | 142 |
| Net (loss) income | (88) | 4 | 47 | (15) |
| Equity in net (loss) income of affiliated companies, before reconciling adjustments | (22) | 9 | 18 | (7) |
| Other | (4) | (1) | (1) | 10 |
| Alcoa Corporation's equity in net (loss) income of affiliated companies | (26) | 8 | 17 | 3 |

The Company's basis in the Elysis™ Limited Partnership, included in Other in the table above, has been reduced to zero for its share of losses incurred to date. As a result, the Company has $40 in unrecognized losses as of June 30, 2021 that will be recognized upon additional contributions into the partnership.

**I. Receivables**

On October 25, 2019, a wholly-owned subsidiary of the Company entered into a $120 three-year revolving credit facility agreement secured by certain customer receivables. On April 20, 2020, the Company amended this agreement converting it to a Receivables Purchase Agreement to sell up to $120 of the receivables previously secured by the credit facility without recourse on a revolving basis. The unsold portion of the specified receivable pool will be pledged as collateral to the purchasing bank to secure the sold receivables. Through the second quarter of 2021, no receivables have been sold under this agreement.

**J. Inventories**

| | June 30, 2021 | December 31, 2020 |
|---|---|---|
| Finished goods | $ 283 | $ 321 |
| Work-in-process | 184 | 112 |
| Bauxite and alumina | 460 | 412 |
| Purchased raw materials | 444 | 377 |
| Operating supplies | 176 | 176 |
| | $ 1,547 | $ 1,398 |

Inventories related to the Warrick Rolling Mill were excluded from the December 31, 2020 balances in the above table due to the sale of the rolling mill and were classified as Assets held for sale (see Note C).

**K. Debt**

Credit Facilities.

*Revolving Credit Facility*

On March 4, 2021 (the Amendment No. 4 Effective Date), Alcoa Corporation and Alcoa Nederland Holding B.V. (ANHBV), a wholly-owned subsidiary of the Company, entered into an amendment (Amendment No. 4) to the Revolving Credit Facility (as amended, Revolving Credit Facility) that provides additional flexibility to the Company and ANHBV by (i) increasing the maximum leverage ratio from 2.50 to 1.00 to 2.75 to 1.00 as of the Amendment No. 4 Effective Date (which maximum leverage ratio had been temporarily increased to 3.00 to 1.00 prior to the Amendment No. 4 Effective Date), (ii) decreasing the minimum interest expense coverage ratio from 5.00 to 1.00 to 4.00 to 1.00 as of the Amendment No. 4 Effective Date, (iii) amending the definition of Total Indebtedness (as defined in the Revolving Credit Facility) to permit the Company to exclude the principal amount of new senior notes issued during 2021 from indebtedness for purposes of the calculation of the leverage ratio in fiscal year 2021 (subject to adjustments based on pension obligations funded), and (iv) ending temporary restrictions on the Company's ability to make certain restricted payments or incur incremental loans under the Revolving Credit Facility.

Amendment No. 4 also (i) provides additional debt capacity to permit the Company to issue up to $750 in aggregate principal amount of new senior notes prior to the end of fiscal year 2021 and (ii) a corresponding increase in the maximum leverage ratio commensurate with the increase in leverage resulting from the issuance of such notes up to the amount of pension obligations funded after the issuance of such notes but prior to December 31, 2021, which increase shall in any event not be in excess of the principal amount of such notes. Such additional increase in the maximum leverage ratio will be available beginning in the first quarter of 2022.

The Revolving Credit Facility provides a $1,500 senior secured revolving credit facility to be used for working capital and/or other general corporate purposes of Alcoa Corporation and its subsidiaries. In the fourth quarter of 2020, ANHBV elected to extend the period under which temporary adjustments in Amendment No. 3 would apply, through March 31, 2021. The amendment temporarily adjusted the manner in which Consolidated Cash Interest Expense and Total Indebtedness (as defined in the Revolving Credit Facility) are calculated with respect to the 5.500% Senior Notes due 2027 issued in July 2020. In addition, this election to extend the temporary amendments resulted in a reduction of the aggregate amount of commitments under the Revolving Credit Facility by approximately $245 during the first quarter of 2021, to $1,255. This reduction ended at the end of the first quarter of 2021, and the aggregate amount of commitments returned to $1,500 as of April 1, 2021.

At June 30, 2021, the maximum additional borrowing capacity available to the Company to remain in compliance with the maximum leverage ratio covenant in the Revolving Credit Facility was approximately $3,034. Therefore, the Company may access the entire amount of commitments under the Revolving Credit Facility. As of June 30, 2021, Alcoa Corporation was in compliance with all covenants. There were no borrowings outstanding at June 30, 2021, and there were no amounts borrowed during the second quarter and six-months ended 2021 related to this facility.

144A Debt.

In March 2021, ANHBV completed a Rule 144A (U.S. Securities Act of 1933, as amended) debt issuance for $500 aggregate principal amount of 4.125% Senior Notes due 2029 (the 2029 Notes). The net proceeds of this issuance were approximately $493 reflecting a discount to the initial purchasers of the 2029 Notes, as well as issuance costs. The Company used the net proceeds, together with cash on hand, to contribute $500 to its U.S. defined benefit pension plans applicable to salaried and hourly employees on April 1, 2021, and to redeem in full $750 aggregate principal amount of the Company's outstanding 6.75% Senior Notes due 2024 (the 2024 Notes) on April 7, 2021, and to pay transaction-related fees and expenses.

The discount to the initial purchasers, as well as costs to complete the financing, were deferred and are being amortized to interest expense over the term of the 2029 Notes. Interest on the 2029 Notes is paid semi-annually in March and September, and interest payments will commence September 30, 2021. The indenture contains customary affirmative and negative covenants that are similar to those included in the indenture from the 5.500% Senior Notes due 2027 issued in July 2020, such as limitations on liens, limitations on sale and leaseback transactions, a prohibition on a reduction in the ownership of AWAC entities below an agreed level, and the calculation of certain financial ratios.

ANHBV has the option to redeem the 2029 Notes on at least 10 days, but not more than 60 days, prior notice to the holders of the 2029 Notes under multiple scenarios, including, in whole or in part, at any time or from time to time after March 31, 2024, at a redemption price specified in the indenture (up to 102.063% of the principal amount plus any accrued and unpaid interest in each case). Also, the 2029 Notes are subject to repurchase upon the occurrence of a change in control repurchase event (as defined in the indenture) at a repurchase price in cash equal to 101% of the aggregate principal amount of the 2029 Notes repurchased, plus any accrued and unpaid interest on the 2029 Notes repurchased.

The 2029 Notes rank equally in right of payment with all of ANHBV's existing and future senior unsecured indebtedness, including the Senior Notes with maturities in 2024 (redeemed on April 7, 2021), 2026, 2027 and 2028; rank senior in right of payment to any future subordinated obligations of ANHBV; and are effectively subordinated to ANHBV's existing and future secured indebtedness, including under the Revolving Credit Agreement, to the extent of the value of property and assets securing such indebtedness. See Note M to the Consolidated Financial Statements in Part II Item 8 of the 2020 Annual Report on Form 10-K for additional information related to ANHBV's existing debt and related covenants.

Redemption. On April 7, 2021 (the Redemption Date), the Company redeemed in full $750 aggregate principal amount of the 2024 Notes at a redemption price equal to 103.375% of the principal amount of the 2024 Notes, plus accrued and unpaid interest to but not including the Redemption Date.

The issuance of the 2029 Notes and the redemption of the 2024 Notes were determined to be an issuance of new debt and an extinguishment of existing debt. As a result, the Company recorded a loss of $32 on the extinguishment of debt in the second quarter of 2021 in Interest expense, which is comprised of the redemption premium and the write-off of deferred financing fees and unamortized debt issuance costs. The cash flows related to the transaction are classified as financing cash flows.

**L. Pension and Other Postretirement Benefits** – The components of net periodic benefit cost were as follows:

| | Second quarter ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| **Pension benefits** | **2021** | **2020** | **2021** | **2020** |
| Service cost | $ 5 | $ 13 | $ 10 | $ 27 |
| Interest cost[1] | 29 | 41 | 58 | 83 |
| Expected return on plan assets[1] | (73) | (73) | (146) | (147) |
| Recognized net actuarial loss[1] | 50 | 53 | 101 | 104 |
| Settlements[2] | 39 | — | 39 | — |
| Curtailments[2] | — | 1 | — | 4 |
| Net periodic benefit cost | $ 50 | $ 35 | $ 62 | $ 71 |

| | Second quarter ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| **Other postretirement benefits** | **2021** | **2020** | **2021** | **2020** |
| Service cost | $ 1 | $ 1 | $ 3 | $ 2 |
| Interest cost[1] | 4 | 5 | 8 | 10 |
| Recognized net actuarial loss[1] | 5 | 5 | 11 | 9 |
| Amortization of prior service benefit[1] | (4) | (4) | (8) | (7) |
| Settlements[2] | — | — | 26 | — |
| Curtailments[2] | — | (2) | (17) | (2) |
| Net periodic benefit cost | $ 6 | $ 5 | $ 23 | $ 12 |

(1) These amounts were reported in Other (income) expenses, net on the accompanying Statement of Consolidated Operations (see Note Q).

(2) These amounts were reported in Restructuring and other charges, net on the accompanying Statements of Consolidated Operations (see Note D) and of Cash Flows.

**Plan Actions.** In 2021, management initiated the following actions to certain pension and other postretirement benefit plans:

**Action #1** – On March 31, 2021, Alcoa completed the sale of the Warrick Rolling Mill to Kaiser Aluminum Corporation for total consideration of $670, which included the assumption of $66 in other postretirement benefit liabilities (after a post-closing adjustment that lowered the amount by $6 in the second quarter of 2021). The consideration amount is subject to further customary post-closing adjustments. Approximately 1,150 employees at the rolling operations, which includes the casthouse, hot mill, cold mills, and coating and slitting lines, became employees of Kaiser. As a result, the affected plan was remeasured, including an update to the discount rate used to determine the benefit obligation of the plan. Accrued other postretirement benefits reflects a decrease of $40 related to the remeasurement in addition to the $66 assumed by Kaiser. Further, Alcoa recognized a curtailment gain of $17 and a settlement charge of $26.

**Action #2** – In the second quarter of 2021, settlement accounting and a related plan remeasurement was triggered within Alcoa's U.S. salaried pension plan as a result of a high number of participants electing lump sum payments. This includes former employees of the Warrick Rolling Mill, as well as other Alcoa employees making this election at retirement. Alcoa recorded a $90 decrease to Accrued pension benefits related to this remeasurement and recognized a settlement charge of $39.

The following table presents certain information and the financial impacts of this action on the accompanying Consolidated Financial Statements:

| Action # | Number of affected plan participants | Weighted average discount rate as of December 31, 2020 | Plan remeasurement date | Weighted average discount rate as of plan remeasurement date | Decrease to accrued pension benefits liability | Decrease to accrued other postretirement benefits liability | Curtailment gain[1] | Settlement charge[1] |
|---|---|---|---|---|---|---|---|---|
| 1 | ~840 | 2.45% | March 31, 2021 | 3.06% | $ — | $ (106) | $ (17) | $ 26 |
| 2 | ~120 | 2.38% | June 30, 2021 | 2.71% | $ (90) | $ — | $ — | $ 39 |

(1) These amounts represent the accelerated amortization of a portion of the existing prior service benefit for curtailments and net actuarial loss for settlements and were reclassified from Accumulated other comprehensive loss to Restructuring and other charges, net (see Note D) on the accompanying Statement of Consolidated Operations.

**Funding and Cash Flows.** It is Alcoa's policy to fund amounts for defined benefit pension plans sufficient to meet the minimum requirements set forth in applicable country benefits laws and tax laws, including ERISA for U.S. plans. From time to time, the Company contributes additional amounts as deemed appropriate.

On April 1, 2021, Alcoa made $500 in unscheduled contributions to certain U.S. defined benefit pension plans. The additional contributions were discretionary in nature and were funded with net proceeds from a March 2021 debt issuance (see Note K) plus available cash on hand.

Under ERISA regulations, a plan sponsor that establishes a pre-funding balance by making discretionary contributions to a U.S. defined benefit pension plan may elect to apply all or a portion of this balance toward its minimum required contribution obligations to the related plan in future years. In the second quarter of 2021, management made such election related to the Company's U.S. plans.

Alcoa's minimum required contribution to defined benefit pension plans in 2021 is estimated to be approximately $80, assuming election of the use of the pre-funding balance for the U.S. plan requirement for the remainder of 2021.

In the second quarter of 2021, $6 was contributed to non-U.S. plans and $54 was elected to be deducted from the pre-funding balance of the U.S. plans. In the six month period of 2021, $49 and $20 were contributed to U.S. and non-U.S. plans, respectively.

In the six month period of 2020, approximately $40 and $19 were contributed to U.S. and non-U.S. plans, respectively.

**M. Derivatives and Other Financial Instruments**

**Fair Value**

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (i) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (ii) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for

identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1 - Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates); and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 - Inputs that are both significant to the fair value measurement and unobservable.

**Derivatives**

Alcoa Corporation is exposed to certain risks relating to its ongoing business operations, including the risks of changing commodity prices, foreign currency exchange rates and interest rates. Alcoa Corporation's commodity and derivative activities include aluminum, energy, foreign exchange, and interest rate contracts which are held for purposes other than trading. They are used primarily to mitigate uncertainty and volatility, and to cover underlying exposures. Alcoa Corporation is not involved in trading activities for energy, weather derivatives, or other nonexchange commodity trading activities.

Several of Alcoa Corporation's aluminum, energy, and foreign exchange contracts are classified as Level 1 or Level 2 under the fair value hierarchy. All of these contracts are designated as either fair value or cash flow hedging instruments. Alcoa Corporation also has several derivative instruments classified as Level 3 under the fair value hierarchy, which are either designated as cash flow hedges or undesignated.

The following tables present the detail for Level 1, 2 and 3 derivatives (see additional Level 3 information in further tables below):

| | June 30, 2021 | | December 31, 2020 | |
|---|---|---|---|---|
| | Assets | Liabilities | Assets | Liabilities |
| Level 1 and 2 derivative instruments | $ 23 | $ 24 | $ 21 | $ 7 |
| Level 3 derivative instruments | 5 | 1,415 | — | 838 |
| Total | $ 28 | $ 1,439 | $ 21 | $ 845 |
| Less: Current | 25 | 236 | 21 | 103 |
| Noncurrent | $ 3 | $ 1,203 | $ — | $ 742 |

| | 2021 | | 2020 | |
|---|---|---|---|---|
| Second quarter ended June 30, | Unrealized (loss) gain recognized in Other comprehensive (loss) income | Realized (loss) gain reclassed from Other comprehensive (loss) income to earnings | Unrealized (loss) gain recognized in Other comprehensive (loss) income | Realized (loss) gain reclassed from Other comprehensive (loss) income to earnings |
| Level 1 and 2 derivative instruments | $ 6 | $ (3) | $ 22 | $ (1) |
| Level 3 derivative instruments | (394) | (60) | (536) | (14) |
| Noncontrolling and equity interest | (9) | (4) | 1 | 2 |
| Total | $ (397) | $ (67) | $ (513) | $ (13) |

For the quarter ended June 30, 2021, the realized loss of $3 on Level 1 and Level 2 cash flow hedges was comprised of a $2 loss recognized in Sales and a $1 loss recognized in Cost of goods sold. For the quarter ended June 30, 2020, the realized loss of $1 on Level 1 and 2 cash flow hedges was recognized in Cost of goods sold.

| | 2021 | | 2020 | |
|---|---|---|---|---|
| Six months ended June 30, | Unrealized (loss) gain recognized in Other comprehensive (loss) income | Realized (loss) gain reclassed from Other comprehensive (loss) income to earnings | Unrealized gain (loss) recognized in Other comprehensive (loss) income | Realized (loss) gain reclassed from Other comprehensive (loss) income to earnings |
| Level 1 and 2 derivative instruments | $ (8) | $ (3) | $ (7) | $ (15) |
| Level 3 derivative instruments | (694) | (115) | 331 | (22) |
| Noncontrolling and equity interest | 2 | (1) | 15 | (1) |
| Total | $ (700) | $ (119) | $ 339 | $ (38) |

For the six months ended June 30, 2021, the realized loss of $3 on Level 1 and 2 cash flow hedges was comprised of a $2 loss recognized in Sales and a $1 loss recognized in Cost of goods sold. For the six months ended June 30, 2020, the realized loss of $15 on Level 1 and 2 cash flow hedges was comprised of a $7 loss recognized in Sales and a $8 loss recognized in Cost of goods sold.

Alcoa Corporation has a financial contract that hedges the anticipated power requirements at one of its smelters that expires in July 2021 (Financial contract, below). In March 2021, Alcoa entered into four new financial contracts (Financial contracts (undesignated), below) with three counterparties to hedge the anticipated power requirements at this smelter for the period from August 2021 through July 2026. Two of these financial contracts include LME-linked pricing components and do not qualify for hedge accounting treatment. Management elected not to apply hedge accounting treatment for the other two financial contracts as the value of these contracts is not significant. Significant increases or decreases in the power market or the LME may result in a higher or lower fair value measurement of the financial contracts. Lower prices in the power market or higher LME prices would cause a decrease in the derivative asset or an increase in the derivative liability. Unrealized and realized gains and losses on these financial contracts will be included in Other (income) expenses, net on the accompanying Statement of Consolidated Operations.

**Additional Level 3 Disclosures**

The following table presents quantitative information related to the significant unobservable inputs described above for Level 3 derivative instruments (megawatt hours in MWh):

| | June 30, 2021 | Unobservable Input | Unobservable Input Range | |
|---|---|---|---|---|
| **Asset Derivatives** | | | | |
| Financial contract | $ 2 | Interrelationship of forward energy price and the Consumer Price Index | Electricity (per MWh) | 2021: $51.94 |
| Financial contract (undesignated) | 3 | MWh of energy needed to produce the forecasted mt of aluminum | Electricity (per MWh) | 2021: $47.27<br>2021: $35.06 |
| | | | LME (per mt) | 2021: $2,523<br>2021: $2,513 |
| Total Asset Derivatives | $ 5 | | | |
| **Liability Derivatives** | | | | |
| Power contract | $ 290 | MWh of energy needed to produce the forecasted mt of aluminum | LME (per mt) | 2021: $2,520<br>2027: $2,379 |
| | | | Electricity | Rate of 4 million MWh per year |
| Power contracts | 1,105 | MWh of energy needed to produce the forecasted mt of aluminum | LME (per mt) | 2021: $2,520<br>2029: $2,456<br>2036: $2,752 |
| | | | Midwest premium (per pound) | 2021: $0.2850<br>2029: $0.2750<br>2036: $0.2750 |
| | | | Electricity | Rate of 17 million MWh per year |
| Power contract | 2 | MWh of energy needed to produce the forecasted mt of aluminum | LME (per mt) | 2021: $2,520<br>2021: $2,525 |
| | | | Midwest premium (per pound) | 2021: $0.2850<br>2021: $0.2950 |
| | | | Electricity | Rate of 2 million MWh per year |
| Power contract (undesignated) | 18 | Estimated spread between the 30-year debt yield of Alcoa and the counterparty | Credit spread | 2.45%: 30-year debt yield spread<br>5.32%: Alcoa (estimated)<br>2.87%: counterparty |
| Total Liability Derivatives | $ 1,415 | | | |

The fair values of Level 3 derivative instruments recorded in the accompanying Consolidated Balance Sheet were as follows:

| **Asset Derivatives** | **June 30, 2021** | **December 31, 2020** |
|---|---|---|
| Derivatives designated as hedging instruments: | | |
| Current—financial contract | $ 2 | $ — |
| Total derivatives designated as hedging instruments | $ 2 | $ — |
| Derivatives not designated as hedging instruments: | | |
| Current—financial contract | $ 3 | $ — |
| Total derivatives not designated as hedging instruments | $ 3 | $ — |
| Total Asset Derivatives | $ 5 | $ — |
| **Liability Derivatives** | | |
| Derivatives designated as hedging instruments: | | |
| Current—power contracts | $ 213 | $ 94 |
| Current—financial contract | — | 1 |
| Noncurrent—power contracts | 1,184 | 720 |
| Total derivatives designated as hedging instruments | $ 1,397 | $ 815 |
| Derivatives not designated as hedging instruments: | | |
| Current—embedded credit derivative | $ 3 | $ 4 |
| Noncurrent—embedded credit derivative | 15 | 19 |
| Total derivatives not designated as hedging instruments | $ 18 | $ 23 |
| Total Liability Derivatives | $ 1,415 | $ 838 |

Assuming market rates remain constant with the rates at June 30, 2021, a realized loss of $213 related to power contracts and a realized gain of $2 related to the financial contract are expected to be recognized in Sales and Cost of goods sold, respectively, over the next 12 months.

At June 30, 2021 and December 31, 2020, the power contracts with embedded derivatives designated as cash flow hedges hedge forecasted aluminum sales of 2,018 kmt and 2,130 kmt, respectively. At June 30, 2021 and December 31, 2020, the financial contract hedges forecasted electricity purchases of 208,692 and 1,427,184 megawatt hours, respectively.

The following tables present the reconciliation of activity for Level 3 derivative instruments:

| | **Assets** | **Liabilities** | | |
|---|---|---|---|---|
| **Second quarter ended June 30, 2021** | **Financial contract** | **Power contracts** | **Financial contract** | **Embedded credit derivative** |
| April 1, 2021 | $ — | $ 1,047 | $ 15 | $ 18 |
| Total gains or losses included in: | | | | |
| Sales (realized) | — | (67) | — | — |
| Cost of goods sold (realized) | — | — | 7 | — |
| Other income, net (unrealized/realized) | 3 | — | (1) | 1 |
| Other comprehensive (loss) income (unrealized) | 2 | 417 | (21) | — |
| Other | — | — | — | (1) |
| June 30, 2021 | $ 5 | $ 1,397 | $ — | $ 18 |
| Change in unrealized gains or losses included in earnings for derivative instruments held at June 30, 2021: | | | | |
| Other income, net | $ 3 | $ — | $ (1) | $ 1 |

| Six months ended June 30, 2021 | Assets | Liabilities | | |
|---|---|---|---|---|
| | Financial contract | Power contracts | Financial contract | Embedded credit derivative |
| January 1, 2021 | $ — | $ 814 | $ 1 | $ 23 |
| Total gains or losses included in: | | | | |
| Sales (realized) | — | (107) | — | — |
| Cost of goods sold (realized) | — | — | (8) | — |
| Other expenses (income), net (unrealized/realized) | 3 | — | (1) | (5) |
| Other comprehensive (loss) income (unrealized) | 2 | 690 | 6 | — |
| Other | — | — | 2 | — |
| June 30, 2021 | $ 5 | $ 1,397 | $ — | $ 18 |
| Change in unrealized gains or losses included in earnings for derivative instruments held at June 30, 2021: | | | | |
| Other expenses (income), net | $ 3 | $ — | $ (1) | $ (4) |

There were no purchases, sales, or settlements of Level 3 derivative instruments in the periods presented.

**Other Financial Instruments**

The carrying values and fair values of Alcoa Corporation's other financial instruments were as follows:

| | June 30, 2021 | | December 31, 2020 | |
|---|---|---|---|---|
| | Carrying value | Fair value | Carrying value | Fair value |
| Cash and cash equivalents | $ 1,652 | $ 1,652 | $ 1,607 | $ 1,607 |
| Restricted cash | 3 | 3 | 3 | 3 |
| Short-term borrowings | 77 | 77 | 77 | 77 |
| Long-term debt due within one year | 1 | 1 | 2 | 2 |
| Long-term debt, less amount due within one year | 2,216 | 2,408 | 2,463 | 2,692 |

The following methods were used to estimate the fair values of other financial instruments:

**Cash and cash equivalents and Restricted cash.** The carrying amounts approximate fair value because of the short maturity of the instruments. The fair value amounts for Cash and cash equivalents and Restricted cash were classified in Level 1 of the fair value hierarchy.

**Short-term borrowings and Long-term debt, including amounts due within one year.** The fair value was based on quoted market prices for public debt and on interest rates that are currently available to Alcoa Corporation 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.

**N. Income Taxes** – Alcoa Corporation's estimated annualized effective tax rate (AETR) for 2021 as of June 30, 2021 differs from the U.S. federal statutory rate of 21% primarily due to losses in countries with full valuation allowances resulting in no tax benefit, as well as foreign income taxed in higher rate jurisdictions.

| | Six months ended June 30, | |
|---|---|---|
| | 2021 | 2020 |
| Income before income taxes | $ 773 | $ 114 |
| Estimated annualized effective tax rate | 28.0 % | (183.0) % |
| Income tax expense (benefit) | $ 217 | $ (209) |
| (Unfavorable) favorable tax impact related to losses in jurisdictions with no tax benefit | (12) | 333 |
| Discrete tax (benefit) expense | (1) | 1 |
| Provision for income taxes | $ 204 | $ 125 |

Alúmina Española, S.A. (Española) has incurred recent operating losses that may result in a three-year cumulative loss position later in 2021. At this point in time, management concluded that the Española's net deferred tax assets will more likely than not be realized and a valuation allowance has not been recorded against deferred tax assets, but Española's operating results will continue to be monitored. Upon changes in facts and circumstances, management may conclude that Española's deferred tax assets may not be realized, resulting in a future charge to establish a valuation allowance. Española's net deferred tax assets were $103 at June 30, 2021. The majority of Española's net deferred tax assets relate to prior net operating losses.

**O. Leasing**

Management records a right-of-use asset and lease liability for several types of operating leases, including land and buildings, alumina refinery process control technology, plant equipment, vehicles, and computer equipment. The leases have remaining terms of less than one to 37 years. The discount rate applied to these leases is the Company's incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments, unless there is a rate implicit in the lease agreement. The Company does not have material financing leases.

Lease expense and operating cash flows include:

| | Second quarter ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Costs from operating leases | $ 17 | $ 20 | $ 38 | $ 38 |
| Variable lease payments | $ 4 | $ 1 | $ 5 | $ 5 |
| Short-term rental expense | $ 1 | $ — | $ 1 | $ 1 |

The weighted average lease term and weighted average discount rate as of June 30, 2021 and December 31, 2020 were as follows:

| | June 30, 2021 | December 31, 2020 |
|---|---|---|
| Weighted average lease term for operating leases (years) | 4.8 | 4.4 |
| Weighted average discount rate for operating leases | 5.2% | 5.2% |

The following represents the aggregate right-of use assets and related lease obligations recognized in the Consolidated Balance Sheet at:

| | June 30, 2021 | December 31, 2020 |
|---|---|---|
| Properties, plants and equipment, net | $ 122 | $ 137 |
| Other current liabilities | $ 49 | $ 60 |
| Other noncurrent liabilities and deferred credits | 76 | 82 |
| Total operating lease liabilities | $ 125 | $ 142 |

Right-of-use assets and lease liabilities related to the Warrick Rolling Mill were excluded from the December 31, 2020 balances in the above table due to the sale of the rolling mill and were classified as Assets held for sale (see Note C).

New leases of $4 and $12 were added during the second quarter and six-month period of 2021, respectively.

The future cash flows related to the operating lease obligations as of June 30, 2021 were as follows:

| | |
|---|---|
| 2021 (excluding the six months ended June 30) | $ 34 |
| 2022 | 37 |
| 2023 | 24 |
| 2024 | 15 |
| 2025 | 9 |
| Thereafter | 23 |
| Total lease payments (undiscounted) | 142 |
| Less: discount to net present value | (17) |
| Total | $ 125 |

**P. Contingencies**

Environmental Matters

Alcoa Corporation participates in environmental assessments and cleanups at several locations. These include currently or previously owned or operated 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, among others, the nature and extent of contamination, changes in remedial requirements, and technology advancements.

Alcoa Corporation's environmental remediation reserve balance reflects the most probable costs to remediate identified environmental conditions for which costs can be reasonably estimated. The following table details the changes in the carrying value of recorded environmental remediation reserves:

| | | |
|---|---|---|
| **Balance at December 31, 2019** | $ | 335 |
| Liabilities incurred | | 7 |
| Cash payments | | (19) |
| Foreign currency translation and other | | (1) |
| **Balance at December 31, 2020** | | 322 |
| Liabilities incurred | | 4 |
| Cash payments | | (11) |
| Reversals of previously recorded liabilities | | (17) |
| **Balance at June 30, 2021** | $ | 298 |

At June 30, 2021 and December 31, 2020, the current portion of Alcoa Corporation's environmental remediation reserve balance was $36 and $29, respectively.

The Company incurred liabilities of $4 during the six-month period of 2021 primarily related to wetlands mitigation at the Longview site in Washington and increases for ongoing monitoring and maintenance at various sites. These charges are primarily recorded in Restructuring and other charges, net and Cost of goods sold on the accompanying Statement of Consolidated Operations. Payments related to remediation expenses applied against the reserve were $6 and $11 in the second quarter and six-month period of 2021, respectively. These amounts include mandated expenditures as well as those not required by any regulatory authority or third party. Further, the Company recorded reversals of reserves of $10 and $17 during the second quarter and six-month period of 2021, respectively, related to:

- $5 (both periods) due to lower costs for waste treatment at a previously closed Suriname site;
- $5 (both periods) due to lower costs for site remediation related to a previously closed site in Brazil; and,
- $7 (six-month period only) due to the determination that remaining site remediation is no longer required related to the previously closed Tennessee site.

The Company incurred liabilities of $2 for the six-month period of 2020 due to charges related to increases for ongoing monitoring and maintenance and environmental consulting work for a remediation project at the Fusina site in Italy. These charges are primarily recorded in Cost of goods sold on the accompanying Statement of Consolidated Operations. Payments related to remediation expenses applied against the reserve were $6 and $9 in the second quarter and six-month period of 2020, respectively. These amounts include mandated expenditures as well as those not required by any regulatory authority or third party. The reserve also reflects a decrease of $6 in the six-month period of 2020, due to the effects of foreign currency translation.

The estimated timing of cash outflows on the environmental remediation reserve at June 30, 2021 is as follows:

| | | |
|---|---|---|
| 2021 (excluding the six months ended June 30, 2021) | $ | 19 |
| 2022 - 2026 | | 166 |
| Thereafter | | 113 |
| Total | $ | 298 |

Reserve balances at June 30, 2021 and December 31, 2020, associated with significant sites with active remediation underway or for future remediation were $241 and $259, respectively. In management's judgment, the Company's reserves are sufficient to satisfy the provisions of the respective action plans. Upon changes in facts or circumstances, a change to the reserve may be required. The Company's significant sites include:

**Poços de Caldas, Brazil**—The reserve associated with the 2015 closure of the Alcoa Alumínio S.A. smelter in Poços de Caldas, Brazil, is for remediation of historic spent potlining storage and disposal areas. The final remediation plan is currently under review; such review could require the reserve balance to be adjusted.

**Fusina and Portovesme, Italy**—Alcoa Corporation's subsidiary Alcoa Trasformazioni S.r.l. has remediation projects underway for its closed smelter sites at Fusina and Portovesme which have been approved by the Italian Ministry for Ecologic Transition (MET), formerly the Italian Ministry of Environment and Protection of Land and Sea (MOE). Work is ongoing for soil remediation at the Fusina site with expected completion in 2022 and at the Portovesme site with expected completion in the second half of 2021. Additionally, annual payments are made to MET over a 10-year period through 2022 for groundwater emergency containment and natural resource damages at the Fusina site. The final remedial design for the groundwater remediation project at Portovesme was completed in 2020 and is awaiting approval from the MET.

**Suriname**—The reserve associated with the 2017 closure of the Suralco refinery and bauxite mine is for treatment and disposal of refinery waste and soil remediation. The work began in 2017 and is expected to be completed at the end of 2025.

**Hurricane Creek, Arkansas**—The reserve associated with the 1990 closure of two mining areas and refineries near Hurricane Creek, Arkansas is for ongoing monitoring and maintenance for water quality surrounding the mine areas and residue disposal areas.

**Massena, New York**—The reserve associated with the 2015 closure of the Massena East smelter by the Company's subsidiary, Reynolds Metals Company, is for subsurface soil remediation to be performed after demolition of the structures. Remediation work is expected to commence in 2021 and will take four to eight years to complete.

**Point Comfort, Texas**—The reserve associated with the 2019 closure of the Point Comfort alumina refinery is for disposal of industrial wastes contained at the site, subsurface remediation, and post-closure monitoring and maintenance. The final remediation plan is currently under review, which may result in a change to the existing reserve.

**Sherwin, Texas**—In connection with the 2018 settlement of a dispute related to the previously-owned Sherwin alumina refinery, the Company's subsidiary, Copano Enterprises LLC, accepted responsibility for the final closure of four bauxite residue waste disposal areas (known as the Copano facility). Work commenced on the first residue disposal area in 2018 and will take eight to ten years to complete, depending on the nature of its potential re-use. Work on the next three areas has not commenced but is expected to be completed by 2048, depending on its potential re-use.

**Longview, Washington**—In connection with a 2018 Consent Decree and Cleanup Action Plan with the State of Washington Department of Ecology, the Company's subsidiary, Northwest Alloys as landowner, accepted certain responsibilities for future remediation of contaminated soil and sediments at the site located near Longview, Washington. In December 2020, the lessee of the land, who is a partner in the remediation of the site, filed for bankruptcy. As of June 30, 2021, the reserve related to the site is deemed to be sufficient.

**Other Sites**—The Company is in the process of decommissioning various other plants and remediating sites in several countries for potential redevelopment or to return the land to a natural state. In aggregate, there are approximately 35 remediation projects at these other sites that are planned or underway. These activities will be completed at various times in the future with the latest expected to be in 2026, after which ongoing monitoring and other activities may be required. At June 30, 2021 and December 31, 2020, the reserve balance associated with these activities was $57 and $63, respectively.

Tax

**Spain**— In July 2013, following a corporate income tax audit covering the 2006 through 2009 tax years, an assessment was received from Spain's tax authorities disallowing certain interest deductions claimed by ParentCo's Spanish consolidated tax group. Through various stages of subsequent appeal, denial, and re-assessment through the third quarter of 2018, Alcoa Corporation management came to believe that it was no longer more likely than not (greater than 50%) to prevail in this matter. Accordingly, in the third quarter of 2018, Alcoa Corporation recorded a charge of $30 (€26) in Provision for income taxes to establish a liability for its portion of the estimated loss in this matter, representing management's best estimate at the time.

On November 8, 2018, Alcoa filed a petition for appeal to the Supreme Court of Spain. During the fourth quarter of 2020, the Supreme Court of Spain met and ruled in favor of Alcoa on the 2006 through 2009 tax year assessment. The ruling is final and cannot be further appealed. As a result of the final ruling, in the fourth quarter of 2020 Alcoa reversed the $32 (€26) reserve that was established in 2018 and the matter is now considered closed. Additionally, a lien secured with the San Ciprián smelter to Spain's tax authorities that was provided in relation to this matter has been released.

**Brazil (AWAB)**— In March 2013, AWAB was notified by the Brazilian Federal Revenue Office (RFB) that approximately $110 (R$220) of value added tax credits previously claimed are being disallowed and a penalty of 50% assessed. Of this amount, AWAB received $41 (R$82) in cash in May 2012. The value-added tax credits were claimed by AWAB for both fixed assets and export sales related to the Juruti bauxite mine and São Luís refinery expansion. The RFB has disallowed credits they allege belong to the consortium in which AWAB owns an interest and should not have been claimed by AWAB. Credits have also been disallowed as a result of challenges to apportionment methods used, questions about the use of the credits, and an alleged lack of documented proof. AWAB presented defense of its claim to the RFB on April 8, 2013. If AWAB is successful in this administrative process, the RFB would have no further recourse. If unsuccessful in this process, AWAB has the option to litigate at a judicial level. Separately from AWAB's administrative appeal, in June 2015, a new tax law was enacted repealing the provisions in the tax code that were the basis for the RFB assessing a 50% penalty in this matter. As such, the estimated range of reasonably possible loss for these matters is $0 to $44 (R$220). It is management's opinion that the allegations have no basis; however, at this time, the Company is unable to reasonably predict an outcome for this matter.

**Australia (AofA)**— In December 2019, AofA received a statement of audit position (SOAP) from the Australian Taxation Office (ATO) related to the pricing of certain historic third-party alumina sales. The SOAP proposed adjustments that would result in additional income tax payable by AofA. During 2020, the SOAP was the subject of an independent review process within the ATO. At the conclusion of this process, the ATO determined to continue with the proposed adjustments and issued Notices of Assessment (the Notices) that were received by AofA on July 7, 2020. The Notices asserted claims for income tax payable by AofA of approximately $160 (A$214). The Notices also included claims for compounded interest on the tax amount totaling approximately $530 (A$707).

On September 17, 2020, the ATO issued a position paper with its preliminary view on the imposition of administrative penalties related to the tax assessment issued to AofA. This paper proposed penalties of approximately $96 (A$128). AofA disagrees with the ATO's proposed position on penalties and submitted a response to the position paper in the fourth quarter of 2020. After the ATO completes its review of AofA's response, the ATO could issue a penalty assessment.

The Company does not agree with the ATO's positions, and AofA will continue to defend this matter and pursue all available dispute resolution methods, up to and including the filing of proceedings in the Australian Courts, a process which could last several years and could involve significant expenses. The Company maintains that the sales subject to the ATO's review, which were ultimately sold to Aluminium Bahrain B.S.C., were the result of arm's length transactions by AofA over two decades and were made at arm's length prices consistent with the prices paid by other third-party alumina customers.

In accordance with the ATO's dispute resolution practices, AofA paid 50% of the assessed income tax amount exclusive of interest and any penalties, or approximately $74 (A$107), during the third quarter 2020, and the ATO is not expected to seek further payment prior to final resolution of the matter. If AofA is ultimately successful, any amounts paid to the ATO as part of the 50% payment would be refunded. AofA funded the payment with cash on hand and recorded the payment within Other noncurrent assets as a tax assessment deposit; the related June 30, 2021 balance is $80 (A$107).

Further interest on the unpaid tax and interest amounts will continue to accrue during the dispute. The initial interest assessment and the additional interest accrued are deductible against taxable income by AofA but would be taxable as income in the year the dispute is resolved if AofA is ultimately successful. AofA applied this deduction beginning in the third quarter of 2020 which reduced cash tax payments by approximately $165 (A$219) in 2020 and $3 (A$5) and $7 (A$10), respectively, in the second quarter and six-month period of 2021. This amount has been reflected within Other noncurrent liabilities and deferred credits as a noncurrent accrued tax liability; the related June 30, 2021 balance is $172 (A$229).

The Company continues to believe it is more likely than not that AofA's tax position will be sustained and therefore is not recognizing any tax expense in relation to this matter. However, because the ultimate resolution of this matter is uncertain at this time, the Company cannot predict the potential loss or range of loss associated with the outcome, which may materially affect its results of operations and financial condition. References to any assessed U.S. dollar amounts presented in connection with this matter have been converted into U.S. dollars from Australian dollars based on the exchange rate in effect as of June 30, 2021.

AofA is part of the Company's joint venture with Alumina Limited, an Australian public company listed on the Australian Securities Exchange. The Company and Alumina Limited own 60% and 40%, respectively, of the joint venture entities, including AofA.

Other

**Spain**— During 2019, the Company completed the divestiture of the Avilés and La Coruña (Spain) aluminum facilities to PARTER Capital Group AG (PARTER) in a sale process endorsed by the Spanish government and supported by the workers' representatives following a collective dismissal process. In connection with the divestiture, Alcoa committed to make financial contributions to the buyer of up to $95; $78 has been paid to date. In 2020, PARTER sold its majority stake in the facilities to an unrelated party. Alcoa had no knowledge of the subsequent transaction prior to its announcement and on August 28, 2020, Alcoa filed a lawsuit with the Court of First Instance in Madrid, Spain asserting that the sale was in breach of the sale agreement between Alcoa and PARTER.

Related to this divestiture, certain claims and investigations have been initiated by or at the request of the employees of the facilities against their current employers, the owners of the current employers, and Alcoa, alleging that the agreements of the collective dismissal process remain in force and that Alcoa remains liable for related social benefits to the employees. One of the claims is a collective case before the Spanish National Court, filed on November 10, 2020, where the workers' representatives and employees are seeking for the terms of the Collective Dismissal Agreement signed with the workers in January 2019 to be fulfilled or, alternatively, payment of severance corresponding to an unfair dismissal.

On June 15, 2021, the Spanish National Court ruled that the collective dismissal agreement for the divested Avilés and La Coruña aluminum facilities is still in effect and that Alcoa is liable for related employee severance. Alcoa has not recorded a reserve related to the matter, has started the process to file an appeal with the Spanish Supreme Court and will continue to defend this matter and pursue all available legal resolution methods. At this time, Alcoa Corporation is unable to reasonably predict the ultimate outcome or range of loss associated with the outcome of this matter, which may materially affect its results of operations.

Alcoa continues to believe it acted in good faith, in full compliance with the law and with all of the terms that it committed to in the contract for the sale of the Avilés and Coruña facilities to PARTER and in the agreements that it entered into with the representatives of the workers of both facilities.

General

In addition to the matters discussed above, various other lawsuits, claims, and proceedings have been or may be instituted or asserted against Alcoa Corporation, including those pertaining to environmental, safety and health, commercial, tax, product liability, intellectual property infringement, employment, and employee and retiree benefit matters, and other actions and claims arising out of the normal course of business. While the amounts claimed in these other matters may be substantial, the ultimate liability is not readily determinable because of the considerable uncertainties that exist. Accordingly, it is possible that the Company's liquidity or results of operations in a particular 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 financial position of the Company.

**Q. Other (Income) Expenses, Net**

| | Second quarter ended June 30, | | Six months ended June 30, | |
|---|---|---|---|---|
| | 2021 | 2020 | 2021 | 2020 |
| Equity (gain) loss | $ (26) | $ 22 | $ (31) | $ 29 |
| Foreign currency losses, net | 10 | 2 | 6 | 13 |
| Net (gain) loss from asset sales | (98) | 1 | (124) | (176) |
| Net (gain) loss on mark-to-market derivative instruments (M) | (2) | (2) | (7) | 9 |
| Non-service costs – Pension & OPEB (L) | 11 | 27 | 24 | 52 |
| Other | — | 1 | 3 | (8) |
| | $ (105) | $ 51 | $ (129) | $ (81) |

Net (gain) loss from asset sales for the second quarter and six months ended June 30, 2021 included a net gain of $93 and $120, respectively, related to the sales of the former Eastalco site and the Warrick Rolling Mill (see Note C). Net (gain) loss from asset sales for the second quarter and six months ended June 30, 2020 included a net gain of $1 and $181, respectively, related to the sale of EES (see Note C).

**R. Subsequent Events**

On July 28, 2021, Alcoa made the decision to permanently close the previously curtailed anode facility in Lake Charles, Louisiana, United States. The anode facility within the Lake Charles site has been fully curtailed since 2015. The Company expects to record restructuring and other charges of approximately $25 to $30 (pre- and after-tax) in the third quarter of 2021, comprised of asset impairments of approximately $20 and cash-based charges for closure and asset retirement obligations of approximately $5 to $10. The closure is expected to take approximately one year. The decision to permanently close the facility was made as part of the Company's on-going portfolio review. The Company's petroleum coke calciner located at the same site in Lake Charles will remain in operation, unaffected by the closure of the anode facility.

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

(dollars in millions, except per-share amounts, average realized prices, and average cost amounts; dry metric tons in millions (mdmt); metric tons in thousands (kmt))

**Business Update**

Coronavirus

In response to the ongoing coronavirus (COVID-19) pandemic, Alcoa implemented comprehensive measures to protect the health of the Company's workforce, prevent infection in our locations, mitigate impacts, and safeguard business continuity. As a result of these measures and the aluminum industry being classified as an essential business, all of Alcoa's bauxite mines, alumina refineries, and aluminum manufacturing facilities continue to remain in operation. The Company continues, through its operations leadership team and global crisis response team, to ensure that each location's preparedness and response plans are up to date.

The Company has not experienced any significant interruption from its supply sources, and the Company's locations have had minimal contractor- and employee-related disruptions to date. The magnitude and duration of the COVID-19 pandemic continues to be unknown. The pandemic could have adverse future impacts on the Company's business, financial condition, operating results, and cash flows. Further adverse conditions or prolonged deterioration of conditions could negatively impact our financial condition and result in asset impairment charges, including long-lived assets or goodwill, or affect the realizability of deferred tax assets.

As a result of the pandemic's impact on the macroeconomic environment, management evaluated the future recoverability of the Company's assets, including goodwill and long-lived assets, and the realizability of deferred tax assets while considering the Company's current market capitalization. Management concluded that no asset impairments and no additional valuation allowances were required through June 30, 2021.

Key Actions

In June 2021, the Company completed the sale of the previously closed Eastalco aluminum smelter site in the state of Maryland in a transaction valued at $100. Upon closing of the transaction, the Company received $94 in cash and recorded a gain of $90 in Other (income) expenses, net ($90 pre- and $89 after-tax) on the Statement of Consolidated Operations.

On November 30, 2020, the Company entered into an agreement to sell its rolling mill located at Warrick Operations (Warrick Rolling Mill), an integrated aluminum manufacturing site near Evansville, Indiana (Warrick Operations), to Kaiser Aluminum Corporation (Kaiser). On March 31, 2021, the Company completed the sale for total consideration of approximately $670, which includes the assumption of $66 in other postretirement benefit liabilities (after post-closing adjustment which lowered the amount by $6 in the second quarter of 2021). The Company recorded a gain of $27 in Other (income) expenses, net (pre- and after-tax) on the Statement of Consolidated Operations upon closure in the first quarter of 2021. During the second quarter of 2021, the Company recorded an additional net gain of $3 in Other (income) expenses, net related to working capital, other postretirement benefit liabilities, and site separation costs. The consideration and gain amounts are subject to further customary post-closing adjustments.

Alcoa retains ownership of the site's 269 kmt aluminum smelter and its electricity generating units at Warrick Operations with a market-based metal supply agreement with Kaiser. In the first quarter of 2021 the Company recorded estimated liabilities of approximately $70 for future site separation commitments and remaining transaction costs associated with the sales agreement. Approximately half of the obligation is expected to be spent within the next 12 months, with the remainder to be spent through 2023.

In March 2021, ANHBV, a wholly-owned subsidiary of Alcoa Corporation, issued $500 aggregate principal amount of 4.125% Senior Notes due 2029 (the 2029 Notes) in a private transaction exempt from the registration requirements of the Securities Act of 1933, as amended (the Securities Act). The net proceeds of this issuance were approximately $493 reflecting a discount to the initial purchasers of the 2029 Notes, as well as issuance costs. The Company used the proceeds, together with cash on hand, to contribute $500 to its U.S. defined benefit pension plans applicable to salaried and hourly employees on April 1, 2021, and to redeem in full $750 aggregate principal amount of the Company's outstanding 6.75% Senior Notes due 2024 (the 2024 Notes) on April 7, 2021, and to pay transaction-related fees and expenses.

On March 18, 2021, the Company signed 5-year agreements to repower the Portland Aluminum Smelter in the State of Victoria, Australia. The agreements with three separate providers will commence on August 1, 2021. Further, the Australian Federal Government has committed, subject to approval, to provide up to $15 (A$19) per year for four years to underwrite the smelter's participation in the Reliability and Emergency Reserve Trader (RERT) scheme. The arrangement will recognize the smelter's ability to rapidly shed load when required to help protect the power grid from unexpected interruptions when it is under duress.

See the below sections for additional details on the above described actions.

Spain Matters

San Ciprián—In January 2021, May 2021 and July 2021, the Company reached agreements with the workers' representatives to temporarily suspend the labor strike at its San Ciprián alumina refinery and aluminum smelter in Spain. The July 2021 agreement suspended the strike until August 2, 2021.

The Company had been actively engaged in an exclusive sale process with Sociedad Estatal de Participaciones Industriales (SEPI), a Spanish government-owned entity. To date, SEPI has not confirmed its role as potential buyer of the San Ciprian smelter. The Company is continuing to evaluate potential solutions for the smelter.

The refinery and smelter have continued operations and the Company remains open to an agreement to further extend the strike suspension period. Although the ultimate outcome is currently unknown, the reactivation of the strike may negatively affect the Company's operating and financial results due to reduced refinery production and metal shipments.

CO2 Compensation Credits—Separately, in June 2021, the Spanish Ministry of Industry, Trade and Tourism (the Ministry) initiated the process to request repayment of $41 (€34) in CO2 compensation credits related to 2018 for $14 (€11) and 2019 for $27 (€23), which were subject to a three-year clawback provision based on continued operations and employment. The request for repayment is related to Alcoa's communication of the decision to implement the collective dismissal process and its potential impact on operations and employment at San Ciprián. Alcoa disagrees with the Ministry's position as the collective dismissal process was not concluded and operations and employment at San Ciprián have been maintained. Accordingly, the Company has filed an appeal.

Spain has a compensatory mechanism for the indirect cost of CO2 and provides associated carbon credits. Such CO2 compensation credits are typically recorded as a reduction to Costs of goods sold. Upon receipt of the credits in each of the applicable years, the Company recorded the cash received as deferred income (liability) due to the clawback provisions. Further, Alcoa did not receive CO2 compensation credits earned in 2020 based on the same circumstances.

Avilés and La Coruña—During 2019, the Company completed the divestiture of the Avilés and La Coruña (Spain) aluminum facilities to PARTER Capital Group AG (PARTER) in a sale process endorsed by the Spanish government and supported by the workers' representatives following a collective dismissal process. In connection with the divestiture, Alcoa committed to make financial contributions to the buyer of up to $95; $78 has been paid to date. In 2020, PARTER sold its majority stake in the facilities to an unrelated party. Alcoa had no knowledge of the subsequent transaction prior to its announcement and on August 28, 2020, Alcoa filed a lawsuit with the Court of First Instance in Madrid, Spain asserting that the sale was in breach of the sale agreement between Alcoa and PARTER.

Related to this divestiture, certain claims and investigations have been initiated by or at the request of the employees of the facilities against their current employers, the owners of the current employers, and Alcoa, alleging that the agreements of the collective dismissal process remain in force and that Alcoa remains liable for related social benefits to the employees. One of the claims is a collective case before the Spanish National Court, filed on November 10, 2020, where the workers' representatives and employees are seeking for the terms of the Collective Dismissal Agreement signed with the workers in January 2019 to be fulfilled or, alternatively, payment of severance corresponding to an unfair dismissal.

On June 15, 2021, the Spanish National Court ruled that the collective dismissal agreement for the divested Avilés and La Coruña aluminum facilities is still in effect and that Alcoa is liable for related employee severance. Alcoa has not recorded a reserve related to the matter, has started the process to file an appeal with the Spanish Supreme Court and will continue to defend this matter and pursue all available legal resolution methods.

While the ultimate financial impact is uncertain at this time, Alcoa had reached agreement with the workers' representatives on behalf of the smelter employees at the Avilés and La Coruña facilities in January 2019 on severance, early retirement, and relocation provisions prior to the curtailment of the smelters. The agreement included estimated payments of $60 to $70 to the approximately 480 smelter employees, a range dependent on early retirement and relocation elections. Because the facilities were subsequently sold and employment was maintained by the buyer, in part due to the financial contributions made by Alcoa to PARTER, such amounts were not paid to the employees. The approximately 200 employees of the facilities' casthouses and paste plant were not considered in this agreement as those facilities remained in operation and are not included in the above estimate.

Alcoa continues to believe it acted in good faith, in full compliance with the law and with all of the terms that it committed to in the contract for the sale of the Avilés and Coruña facilities to PARTER and in the agreements that it entered into with the representatives of the workers of both facilities.

**Results of Operations**

In accordance with the recently adopted amendments to Item 303 of Regulation S-K, Management has updated its comparison of interim periods to compare the results of the most recent quarter against the results of the immediately preceding sequential quarter in an effort to provide a more meaningful analysis, as we are not a seasonal business, and to align the discussion with how management reviews the results of the Company. The Company will continue to present a comparison of the most recent year-to-date period and the corresponding year-to-date period of the preceding fiscal year.

**Selected Financial Data:**

| | Quarter ended *Sequential* | | Six months ended *Year-to-date* | |
|---|---|---|---|---|
| **Statement of Operations** | **June 30, 2021** | **March 31, 2021** | **June 30, 2021** | **June 30, 2020** |
| Sales | $ 2,833 | $ 2,870 | $ 5,703 | $ 4,529 |
| Cost of goods sold (exclusive of expenses below) | 2,156 | 2,292 | 4,448 | 3,957 |
| Selling, general administrative, and other expenses | 54 | 52 | 106 | 104 |
| Research and development expenses | 6 | 7 | 13 | 12 |
| Provision for depreciation, depletion, and amortization | 161 | 182 | 343 | 322 |
| Restructuring and other charges, net | 33 | 7 | 40 | 39 |
| Interest expense | 67 | 42 | 109 | 62 |
| Other (income) expenses, net | (105) | (24) | (129) | (81) |
| Total costs and expenses | 2,372 | 2,558 | 4,930 | 4,415 |
| Income before income taxes | 461 | 312 | 773 | 114 |
| Provision for income taxes | 111 | 93 | 204 | 125 |
| Net income (loss) | 350 | 219 | 569 | (11) |
| Less: Net income attributable to noncontrolling interest | 41 | 44 | 85 | 106 |
| Net income (loss) attributable to Alcoa Corporation | $ 309 | $ 175 | $ 484 | $ (117) |

| | Quarter ended | | Six months ended | |
|---|---|---|---|---|
| **Selected Financial Metrics** | **June 30, 2021** | **March 31, 2021** | **June 30, 2021** | **June 30, 2020** |
| Diluted income (loss) per share attributable to Alcoa Corporation common shareholders | $ 1.63 | $ 0.93 | $ 2.56 | $ (0.63) |
| Third-party shipments of alumina (kmt) | 2,437 | 2,472 | 4,909 | 4,780 |
| Third-party shipments of aluminum products (kmt) | 767 | 831 | 1,598 | 1,514 |
| Average realized price per metric ton of alumina | $ 282 | $ 308 | $ 295 | $ 274 |
| Average realized price per metric ton of primary aluminum | $ 2,753 | $ 2,308 | $ 2,533 | $ 1,835 |
| Average Alumina Price Index (API)(1) | $ 279 | $ 301 | $ 290 | $ 268 |
| Average London Metal Exchange (LME) 15-day lag(2) | $ 2,360 | $ 2,060 | $ 2,210 | $ 1,612 |

(1) API (Alumina Price Index) is a pricing mechanism that is calculated by the Company based on the weighted average of a prior month's daily spot prices published by the following three indices: CRU Metallurgical Grade Alumina Price; Platts Metals Daily Alumina PAX Price; and Metal Bulletin Non-Ferrous Metals Alumina Index.

(2) LME (London Metal Exchange) is a globally recognized exchange for commodity trading, including aluminum. The LME pricing component represents the underlying base metal component, based on quoted prices for aluminum on the exchange.

| | *Sequential Period Comparison* | *Year-to-date Comparison* |
|---|---|---|
| **Overview** | Net income attributable to Alcoa Corporation increased $134 primarily as a result of:<br>•Higher aluminum prices<br>•Gain on the sale of the former Eastalco site<br>Partially offset by:<br>•Lower alumina prices<br>•Higher restructuring expense, primarily for a settlement charge related to the U.S. pension plan<br>•Higher production and raw material costs<br>•Absence of a gain on the sale of the Warrick Rolling Mill<br>•Higher interest expense primarily related to the early redemption of 6.75% Senior Notes | Net income attributable to Alcoa Corporation increased $601 primarily as a result of:<br>•Higher aluminum and alumina prices<br>•Gain on the sale of the former Eastalco site<br>•Gain on the sale of the Warrick Rolling Mill<br>Partially offset by:<br>•Unfavorable currency movements as the U.S. dollar weakened against most major currencies<br>•Higher energy costs mainly in our Australian refineries due to a new gas contract<br>•Absence of a gain related to the divestiture of the Gum Springs waste treatment facility |
| **Sales** | Sales decreased $37 primarily as a result of:<br>•Impacts of the sale of the Warrick Rolling Mill<br>•Lower realized alumina prices<br>•Lower shipments from San Ciprián as inventory accumulated during the November 2020 to January 2021 strike was sold in first quarter<br>Partially offset by:<br>•Higher realized prices for aluminum | Sales increased $1,174 primarily as a result of:<br>•Higher realized prices for aluminum and alumina<br>•Restart of the Bécancour smelter<br>•Higher shipments due to the end of the strike at the San Ciprián smelter<br>Partially offset by:<br>•Impacts of the sale of the Warrick Rolling Mill<br>•Curtailment of the Intalco smelter |
| **Cost of goods sold** | Cost of goods sold as a percentage of sales decreased 3.8% primarily as a result of:<br>•Higher realized prices for aluminum<br>Partially offset by:<br>•Higher production and raw material costs | Cost of goods sold as a percentage of sales decreased 9.4% primarily as a result of:<br>•Higher realized prices for aluminum and alumina<br>Partially offset by:<br>•Higher energy costs at the Australia alumina refineries due to a new gas contract<br>•Unfavorable currency movements as the U.S. dollar weakened against most major currencies |
| **Selling, general administrative, and other expenses** | Selling, general administrative, and other selling expense increased $2 primarily as a result of:<br>•Higher labor and variable compensation costs | Selling, general administrative, and other selling expense increased $2 primarily as a result of:<br>•Higher labor and variable compensation costs<br>•Net unfavorable currency movements mainly against the Australian dollar<br>Partially offset by:<br>•Lower travel costs due to pandemic travel limitations<br>•Absence of increase of bad debt reserve |
| **Provision for depreciation, depletion, and amortization** | Depreciation decreased $21 primarily as a result of:<br>•Lower depreciation at the Australian mines due to completion of mine moves in the prior quarter | Depreciation increased $21 primarily as a result of:<br>•Higher depreciation at the Australian mines due to completion of mine moves<br>•Unfavorable currency movements as the U.S. dollar weakened against most major currencies<br>Partially offset by:<br>•Lower depreciation due to the sale of the Warrick Rolling Mill |

| | *Sequential Period Comparison* | *Year-to-date Comparison* |
|---|---|---|
| **Interest expense** | Interest expense increased $25 primarily as a result of:<br>• Higher expense related to the early redemption of 6.75% Senior Notes<br>•Additional interest on the $500 notes that were issued in March 2021 at a rate of 4.125%<br>Partially offset by:<br>•Absence of interest on $750 6.75% Senior Notes which were redeemed early in April | Interest expense increased $47 primarily as a result of:<br>•Higher expense related to the early redemption of 6.75% Senior Notes<br>•Additional interest on the $750 notes that were issued in July 2020 at a rate of $5.5%<br>•Additional interest on the $500 notes that were issued in March 2021 at a rate of 4.125%<br>Partially offset by:<br>•Absence of interest on $750 6.75% Senior Notes that were redeemed early in April |
| **Other (income) expenses, net** | Other (income) expenses, net increased $81 primarily as a result of:<br>•Gain on the sale of the former Eastalco site<br>•Higher equity earnings primarily from the Ma'aden aluminum joint venture due to higher aluminum prices<br>Partially offset by:<br>•Absence of a gain on the sale of the Warrick Rolling Mill<br>•Unfavorable currency revaluation impacts from sequential weakening of the U.S. dollar | Other (income) expenses, net increased $48 primarily as a result of:<br>•Gain on the sale of the former Eastalco site<br>•Gain on the sale of the Warrick Rolling Mill<br>•Favorable mark-to-market results on embedded derivatives in energy contracts<br>•Higher equity earnings primarily from the Ma'aden aluminum joint venture due to higher aluminum prices<br>•Lower non-service costs related to pension and OPEB<br>•Favorable currency revaluation impacts<br>Partially offset by:<br>•Absence of a gain related to the divestiture of the Gum Springs waste treatment facility |
| **Restructuring and other charges, net** | In the second quarter of 2021, the Company recorded net charges of $33 which were primarily related to $39 for the settlement of certain pension benefits and $3 for take or pay energy contracts curtailed locations, partially offset by asset retirement obligation adjustments at closed locations of $10.<br><br>In the first quarter of 2021, the Company recorded net charges of $7 which were primarily related to $9 in settlements and curtailments of certain other postretirement benefits related to the sale of the Warrick Rolling Mill; $6 related to take or pay contract costs at the curtailed Intalco and Wenatchee smelters; $3 related to remediation costs at a former facility; and a $12 reversal of remaining environmental and asset retirement obligation reserves at a previously closed Tennessee site due to the completion of demolition and the determination that remaining site remediation is no longer required. | In the six-month period of 2021, the Company recorded net charges of $40 which were primarily related $39 for the settlement of certain pension benefits, $9 in settlements and curtailments of certain other postretirement benefits related to the sale of the Warrick Rolling Mill; $9 related to additional take or pay energy contract costs at the curtailed Intalco and Wenatchee smelters; and $22 of reversals for environmental and asset retirement obligation reserves at closed locations.<br><br>In the six-month period of 2020, Alcoa Corporation recorded net charges of $39 which were primarily related to $27 of costs related to the curtailment of the Intalco smelter and $13 for take or pay energy contract costs related to the curtailed Wenatchee smelter. |

| | *Sequential Period Comparison* | *Year-to-date Comparison* |
|---|---|---|
| **Provision for income taxes** | The Provision for income taxes in the second quarter of 2021 was $111 on income before taxes of $461 or 24.1%. In comparison, the first quarter of 2021 Provision for income taxes was $93 on income before taxes of $312 or 29.8%.<br><br>The increase in taxes is attributable to the higher income before taxes noted above, as well as the distribution of earnings between tax jurisdictions. In the current quarter, the Company had higher income in lower taxed jurisdictions bringing the effective tax rate down from the prior period. | The Provision for income taxes in the six-month period of 2021 was $204 on income before taxes of $773 or 26.4%. In comparison, the six-month period of 2020 Provision for income taxes was $125 on income before taxes of $114 or 109.6%.<br><br>The increase in taxes is primarily attributable to the overall higher income before taxes noted above. Additionally, in the six-month period in 2021, the Company had significantly higher income in the jurisdictions where is pays taxes and lower losses in the jurisdictions where it maintains a full tax valuation reserve. This change in composition of taxable income significantly reduced the effective tax rate from the prior period. |
| **Noncontrolling interest** | Net income attributable to noncontrolling interest was $41 in the second quarter of 2021 compared with $44 in the first quarter of 2021. These amounts are entirely related to Alumina Limited's 40% ownership interest in several affiliated operating entities.<br><br>In the second quarter of 2021, these combined entities, generated slightly lower net income compared with the first quarter of 2021. The slight decrease in earnings was mainly driven by lower alumina prices and higher production costs. | Net income attributable to noncontrolling interest was $85 in the six-month period of 2021 compared with $106 in the six-month period of 2020.<br><br>Net income attributed to non-controlling interest decreased due to higher energy costs at the Australia alumina refineries due to a new gas contract, unfavorable currency impacts as the U.S. dollar weakened mainly against the Australian dollar, partially offset by higher alumina prices. |

**Segment Information**

Alcoa Corporation is a producer of bauxite, alumina, and aluminum products. The Company's operations consist of three worldwide reportable segments: Bauxite, Alumina, and Aluminum. Segment performance under Alcoa Corporation's management reporting system is evaluated based on a number of factors; however, the primary measure of performance is the Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) of each segment. The Company calculates Segment Adjusted EBITDA as Total sales (third-party and intersegment) minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; and Research and development expenses. Alcoa Corporation believes that the presentation of Adjusted EBITDA is useful to investors because such measure provides both additional information about the operating performance of Alcoa Corporation and insight on the ability of Alcoa Corporation to meet its financial obligations. The presentation of Adjusted EBITDA is not intended to be a substitute for, and should not be considered in isolation from, the financial measures reported in accordance with GAAP. Alcoa Corporation's Adjusted EBITDA may not be comparable to similarly titled measures of other companies.

**Bauxite**

Business Update. During the second quarter, the segment achieved strong production rates but continues to realize lower internal bauxite pricing. Further, the Company successfully relocated the Willowdale mining operations in the prior quarter and have recognized costs related to the move in the second quarter. Additional costs to finalize the move are anticipated through the third quarter of 2021.

Production in the below table can vary from Total shipments due primarily to differences between the equity allocation of production and off-take agreements with the respective equity investment. Operating costs in the table below includes all production-related costs: conversion costs, such as labor, materials, and utilities; depreciation, depletion, and amortization; and plant administrative expenses.

| | Quarter ended | | Six months ended | |
|---|---|---|---|---|
| | June 30, 2021 | March 31, 2021 | June 30, 2021 | June 30, 2020 |
| Production (mdmt) | 12.2 | 11.9 | 24.1 | 23.8 |
| Third-party shipments (mdmt) | 1.1 | 1.5 | 2.6 | 3.0 |
| Intersegment shipments (mdmt) | 10.8 | 10.5 | 21.3 | 21.3 |
| Total shipments (mdmt) | 11.9 | 12.0 | 23.9 | 24.3 |
| Third-party sales | $ 39 | $ 58 | $ 97 | $ 137 |
| Intersegment sales | 179 | 185 | 364 | 480 |
| Total sales | $ 218 | $ 243 | $ 461 | $ 617 |
| Segment Adjusted EBITDA | $ 41 | $ 59 | $ 100 | $ 251 |
| Operating costs | $ 206 | $ 237 | $ 443 | $ 422 |
| Average cost per dry metric ton of bauxite | $ 17 | $ 20 | $ 19 | $ 17 |

| | *Sequential Period Comparison* | *Year-to-date Comparison* |
|---|---|---|
| **Production** | Production increased 3% primarily as a result of:<br>•Slightly higher production across most of the portfolio due to strong operational performance combined with stabilization of production at Willowdale following the mine move<br>•One more day in the period | Production increased 1% primarily as a result of:<br>•Higher production across most Alcoa operated mines |
| **Third-party sales** | Third-party sales decreased $19 primarily as a result of:<br>•Lower sales volumes partially related to port delays in Western Australia<br>•Lower freight revenue on fewer shipments | Third-party sales decreased $40 primarily as a result of:<br>•Lower average realized prices<br>•Lower sales volumes partially related to port delays in Western Australia<br>•Lower royalties due to the absence of a favorable true-up that occurred in the first quarter of 2020 |

| | *Sequential Period Comparison* | *Year-to-date Comparison* |
|---|---|---|
| **Intersegment sales** | Intersegment sales decreased $6 primarily as a result of:<br>•Lower intersegment price on sales to the San Ciprián refinery to reflect market pricing<br>Partially offset by:<br>•Higher sales volumes | Intersegment sales decreased $116 primarily as a result of:<br>•Lower average realized prices on sales with the Alumina segment |
| **Segment Adjusted EBITDA** | Segment adjusted EBITDA decreased $18 primarily as a result of:<br>•Lower average realized prices<br>•Higher production costs<br>Partially offset by:<br>•Higher earnings from equity investments | Segment adjusted EBITDA decreased $151 primarily as a result of:<br>•Lower average realized prices<br>•Lower royalties due to the absence of a favorable true up in the first quarter of 2020<br>•Unfavorable currency impacts due to a weaker U.S. dollar mainly against the Australian dollar |

Forward Look. For the third quarter of 2021 in comparison to the second quarter, Bauxite segment results are expected to be consistent with the second quarter of 2021.

**Alumina**

Business Update. During the second quarter of 2021, the average API trended unfavorably, reflecting a 7% decrease from the first quarter of 2021. During the six-month period of 2021, the average API trended favorably, reflecting an 8% improvement over the same period of 2020. The Alumina segment also experienced lower internal bauxite costs which were partially offset by higher energy costs in both periods.

At June 30, 2021, the Alumina segment had base capacity of 12,759 kmt with 214 kmt of curtailed refining capacity. There were no changes to base or curtailed capacity during 2020 or through the first six months of 2021.

Total shipments include metric tons that were not produced by the Alumina segment. Such alumina was purchased to satisfy certain customer commitments. The Alumina segment bears the risk of loss of the purchased alumina until control of the product has been transferred to this segment's customer. Additionally, operating costs in the table below includes all production-related costs: raw materials consumed; conversion costs, such as labor, materials, and utilities; depreciation and amortization; and plant administrative expenses.

| | Quarter ended | | Six months ended | |
|---|---|---|---|---|
| | **June 30, 2021** | **March 31, 2021** | **June 30, 2021** | **June 30, 2020** |
| Production (kmt) | 3,388 | 3,327 | 6,715 | 6,669 |
| Third-party shipments (kmt) | 2,437 | 2,472 | 4,909 | 4,780 |
| Intersegment shipments (kmt) | 1,054 | 1,101 | 2,155 | 2,062 |
| Total shipments (kmt) | 3,491 | 3,573 | 7,064 | 6,842 |
| Third-party sales | 688 | 760 | 1,448 | $ 1,310 |
| Intersegment sales | 343 | 364 | 707 | 625 |
| Total sales | $ 1,031 | $ 1,124 | $ 2,155 | $ 1,935 |
| Segment Adjusted EBITDA | $ 124 | $ 227 | $ 351 | $ 281 |
| Average realized third-party price per metric ton of alumina | $ 282 | $ 308 | $ 295 | $ 274 |
| Operating costs | $ 908 | $ 886 | $ 1,794 | $ 1,632 |
| Average cost per metric ton of alumina | $ 260 | $ 248 | $ 254 | $ 238 |

| | *Sequential Period Comparison* | *Year-to-date Comparison* |
|---|---|---|
| **Production** | Production increased 2% primarily as a result of:<br>•Slightly higher production across most of the portfolio due to better operational performance<br>•One more day in the period | Production increased 1% primarily as a result of:<br>•Slightly higher production across most of the portfolio due to better operational performance<br>Partially offset by:<br>•One less day in the period |
| **Third-party sales** | Third-party sales decreased $72 primarily as a result of:<br>•Lower average realized price of $26/ton principally driven by a lower average API (on a 30-day lag)<br>•Lower third-party shipments of 35kmt<br>•Net unfavorable currency movements due to a weaker U.S. dollar | Third-party sales increased $138 primarily as a result of:<br>•Higher third-party shipments of 129 kmt<br>•Higher average realized price of $21/ton principally driven by a higher average API (on a 30-day lag) |
| **Intersegment sales** | Intersegment sales decreased $21 primarily as a result of:<br>•Lower average realized price<br>•Slightly lower shipments due to timing | Intersegment sales increased $82 primarily as a result of:<br>•Higher average realized price<br>•Slightly higher shipments due to timing |
| **Segment Adjusted EBITDA** | Segment adjusted EBITDA decreased $103 primarily as a result of:<br>•Lower average realized price of $26/ton<br>•Slightly higher energy prices across the portfolio due to higher spot market prices<br>•Net unfavorable currency movements due to a weaker U.S. dollar mainly against the Brazilian real<br>•Higher production costs<br>Partially offset by:<br>•Lower raw material costs | Segment adjusted EBITDA increased $70 primarily as a result of:<br>•Higher average realized price of $21/ton<br>•Lower costs for raw materials<br>Partially offset by:<br>•Higher energy prices in Australia due to a new gas contract<br>•Net unfavorable currency movements due to a weaker U.S. dollar mainly against the Australian dollar |

Forward Look. For the third quarter of 2021 in comparison with the second quarter, we expect stable operations (except as noted below) with higher raw material and energy costs.

In July 2021, one of two ship un-loaders at the Alumar refinery sustained structural damage, reducing the amount of bauxite that can be unloaded. The refinery has reduced production by one-third, to about 7 kmt per day, until full unloading capacity is restored.

**Aluminum**

Business Update. During the second quarter, metal prices increased and demand for value-added products continued the trend of improvements period-over-period. The sale of the Warrick Rolling Mill in the first quarter led to a reduction in aluminum shipments and lower sales in the second quarter.

Total aluminum third-party shipments and total primary aluminum shipments include metric tons that were not produced by the Aluminum segment. Such aluminum was purchased by this segment to satisfy certain customer commitments. The Aluminum segment bears the risk of loss of the purchased aluminum until control of the product has been transferred to this segment's customer. Total aluminum information includes flat-rolled aluminum while Primary aluminum information does not. Operating costs includes all production-related costs: raw materials consumed; conversion costs, such as labor, materials, and utilities; depreciation and amortization; and plant administrative expenses.

The average realized third-party price per metric ton of primary aluminum includes three elements: a) the underlying base metal component, based on quoted prices from the LME; b) the regional premium, which represents the incremental price over the base LME component that is associated with the physical delivery of metal to a particular region (e.g., the Midwest premium for metal sold in the United States); and c) the product premium, which represents the incremental price for receiving physical metal in a particular shape (e.g., billet, slab, rod, etc.) or alloy.

| Total Aluminum information | Quarter ended June 30, 2021 | Quarter ended March 31, 2021 | Six months ended June 30, 2021 | Six months ended June 30, 2020 |
|---|---|---|---|---|
| Third-party aluminum shipments (kmt) | 767 | 831 | 1,598 | 1,514 |
| Third-party sales | $ 2,102 | $ 2,047 | $ 4,149 | $ 3,073 |
| Intersegment sales | 3 | 2 | 5 | 5 |
| Total sales | $ 2,105 | $ 2,049 | $ 4,154 | $ 3,078 |
| Segment Adjusted EBITDA | $ 460 | $ 283 | $ 743 | $ 28 |

| Primary Aluminum information | Quarter ended June 30, 2021 | Quarter ended March 31, 2021 | Six months ended June 30, 2021 | Six months ended June 30, 2020 |
|---|---|---|---|---|
| Production (kmt) | 546 | 548 | 1,094 | 1,145 |
| Third-party shipments (kmt) | 767 | 748 | 1,515 | 1,362 |
| Third-party sales | $ 2,112 | $ 1,727 | $ 3,839 | $ 2,499 |
| Average realized third-party price per metric ton | $ 2,753 | $ 2,308 | $ 2,533 | $ 1,835 |
| Total shipments (kmt) | 767 | 773 | 1,540 | 1,393 |
| Operating costs | $ 1,672 | $ 1,494 | $ 3,166 | $ 2,633 |
| Average cost per metric ton | $ 2,179 | $ 1,933 | $ 2,056 | $ 1,890 |

| | *Sequential Period Comparison* | *Year-to-date Comparison* |
|---|---|---|
| **Production** | Primary production was flat as a result of:<br>•Production was consistent across most of the portfolio | Production decreased 4% primarily as a result of:<br>•Curtailment of Intalco completed in the third quarter 2020<br>Partially offset by:<br>•ABI restart completed in the third quarter 2020 |
| **Third-party sales** | Third-party sales increased $55 primarily as a result of:<br>•Higher average realized price of $445/ton principally driven by a higher average LME (on a 15-day lag)<br>•Higher product premium revenue<br>Partially offset by:<br>•Impacts from the divestiture of the Warrick Rolling Mill | Third-party sales increased $1,076 primarily as a result of:<br>•Increase in LME<br>•Restart of the Bécancour smelter<br>•Higher shipments due to the end of the strike at the San Ciprián smelter<br>•Increase in value-add primary aluminum sales<br>Partially offset by:<br>•Curtailment of the Intalco smelter<br>•Unfavorable impacts from the divestiture of the Warrick Rolling Mill |
| **Segment Adjusted EBITDA** | Segment adjusted EBITDA increased $177 primarily as a result of:<br>•Increase in realized metal prices<br>Partially offset by:<br>•Higher production and input costs | Segment adjusted EBITDA increased $715 primarily as a result of:<br>•Increase in realized metal prices<br>•Favorable impacts from the curtailment of Intalco and ABI restart<br>Partially offset by:<br>•Unfavorable currency movements as the U.S. dollar weakened against most major currencies |

The following table provides consolidated capacity and curtailed capacity (each in kmt) for each smelter owned by Alcoa Corporation:

| | | June 30, 2021 | | March 31, 2021 | | June 30, 2020 | |
|---|---|---|---|---|---|---|---|
| **Facility** | **Country** | **Capacity [1]** | **Curtailed** | **Capacity [1]** | **Curtailed** | **Capacity [1]** | **Curtailed** |
| Portland | Australia | 197 | 30 | 197 | 30 | 197 | 30 |
| São Luís (Alumar) | Brazil | 268 | 268 | 268 | 268 | 268 | 268 |
| Baie Comeau | Canada | 280 | — | 280 | — | 280 | — |
| Bécancour [3] | Canada | 310 | — | 310 | — | 310 | 25 |
| Deschambault | Canada | 260 | — | 260 | — | 260 | — |
| Fjarðaál | Iceland | 344 | — | 344 | — | 344 | — |
| Lista | Norway | 94 | — | 94 | — | 94 | — |
| Mosjøen | Norway | 188 | — | 188 | — | 188 | — |
| San Ciprián | Spain | 228 | — | 228 | — | 228 | — |
| Intalco [2] | U.S. | 279 | 279 | 279 | 279 | 279 | 209 |
| Massena West | U.S. | 130 | — | 130 | — | 130 | — |
| Warrick | U.S. | 269 | 108 | 269 | 108 | 269 | 108 |
| Wenatchee | U.S. | 146 | 146 | 146 | 146 | 146 | 146 |
| | | **2,993** | **831** | **2,993** | **831** | **2,993** | **786** |

(1) These figures represent Alcoa Corporation's share of the facility Nameplate Capacity based on its ownership interest in the respective smelter.

(2) On April 22, 2020, Alcoa announced the curtailment of the remaining 230 kmt of smelting capacity at the Intalco smelter. The full curtailment of 279 kmt, which includes 49 kmt of earlier-curtailed capacity, was completed during the third quarter of 2020.

(3) Curtailed capacity at the Bécancour (Canada) smelter decreased by 25 kmt from the second quarter 2020 as a result of the restart process. The restart completed during the third quarter of 2020.

Forward Look. For the third quarter of 2021 in comparison to the second quarter, we expect sustained strong shipments and demand for value-add products, partially offset by anticipated inflation in raw material and energy costs. Further, the Company anticipates improved results at the Brazilian hydroelectric facilities driven by both increased price and volume, but expects those improvements to be almost entirely offset by higher energy costs in Spain.

**Reconciliation of Certain Segment Information**

**Reconciliation of Total Segment Third-Party Sales to Consolidated Sales**

| | Quarter ended | | Six months ended | |
|---|---|---|---|---|
| | **June 30, 2021** | **March 31, 2021** | **June 30, 2021** | **June 30, 2020** |
| Bauxite | $ 39 | $ 58 | $ 97 | $ 137 |
| Alumina | 688 | 760 | 1,448 | 1,310 |
| Aluminum: | | | | |
| Primary aluminum | 2,112 | 1,727 | 3,839 | 2,499 |
| Other[1] | (10) | 320 | 310 | 574 |
| Total segment third-party sales | 2,829 | 2,865 | 5,694 | 4,520 |
| Other | 4 | 5 | 9 | 9 |
| Consolidated sales | $ 2,833 | $ 2,870 | $ 5,703 | $ 4,529 |

(1) Other includes third-party sales of flat-rolled aluminum and energy, as well as realized gains and losses related to embedded derivative instruments designated as cash flow hedges of forward sales of aluminum. Following the sale of the Warrick Rolling Mill on March 31, 2021, Other no longer includes the sales of flat-rolled aluminum.

**Reconciliation of Total Segment Operating Costs to Consolidated Cost of Goods Sold**

| | Quarter ended | | Six months ended | |
|---|---|---|---|---|
| | June 30, 2021 | March 31, 2021 | June 30, 2021 | June 30, 2020 |
| Bauxite | $ 206 | $ 237 | $ 443 | $ 422 |
| Alumina | 908 | 886 | 1,794 | 1,632 |
| Primary aluminum | 1,672 | 1,494 | 3,166 | 2,633 |
| Other[1] | 68 | 374 | 442 | 626 |
| Total segment operating costs | 2,854 | 2,991 | 5,845 | 5,313 |
| Eliminations[2] | (560) | (544) | (1,104) | (1,132) |
| Provision for depreciation, depletion, amortization[3] | (154) | (176) | (330) | (309) |
| Other[4] | 16 | 21 | 37 | 85 |
| Consolidated cost of goods sold | $ 2,156 | $ 2,292 | $ 4,448 | $ 3,957 |

(1) Prior to the sale of the Warrick Rolling Mill on March 31, 2021, Other largely relates to the Aluminum segment's flat-rolled aluminum product division.

(2) Represents the elimination of cost of goods sold related to intersegment sales between Bauxite and Alumina and between Alumina and Aluminum.

(3) Depreciation, depletion, and amortization is included in the operating costs used to calculate average cost for each of the bauxite, alumina, and primary aluminum product divisions (see Bauxite, Alumina, and Aluminum above). However, for financial reporting purposes, depreciation, depletion, and amortization is presented as a separate line item on Alcoa Corporation's Statement of Consolidated Operations.

(4) Other includes costs related to Transformation and certain other items that impact Cost of goods sold on Alcoa Corporation's Statement of Consolidated Operations that are not included in the operating costs of segments (see footnotes 1 and 3 in the Reconciliation of Total Segment Adjusted EBITDA to Consolidated Net Income (Loss) Attributable to Alcoa Corporation below).

**Reconciliation of Total Segment Adjusted EBITDA to Consolidated Net Income (Loss) Attributable to Alcoa Corporation**

| | Quarter ended | | Six months ended | |
|---|---|---|---|---|
| | June 30, 2021 | March 31, 2021 | June 30, 2021 | June 30, 2020 |
| Total Segment Adjusted EBITDA | $ 625 | $ 569 | $ 1,194 | $ 560 |
| Unallocated amounts: | | | | |
| Transformation[1] | (13) | (11) | (24) | (26) |
| Intersegment eliminations | 35 | (7) | 28 | 22 |
| Corporate expenses[2] | (28) | (26) | (54) | (48) |
| Provision for depreciation, depletion, and amortization | (161) | (182) | (343) | (322) |
| Restructuring and other charges, net | (33) | (7) | (40) | (39) |
| Interest expense | (67) | (42) | (109) | (62) |
| Other income, net | 105 | 24 | 129 | 81 |
| Other[3] | (2) | (6) | (8) | (52) |
| Consolidated income before income taxes | 461 | 312 | 773 | 114 |
| Provision for income taxes | (111) | (93) | (204) | (125) |
| Net income attributable to noncontrolling interest | (41) | (44) | (85) | (106) |
| Consolidated net income (loss) attributable to Alcoa Corporation | $ 309 | $ 175 | $ 484 | $ (117) |

(1) Transformation includes, among other items, the Adjusted EBITDA of previously closed operations.

(2) Corporate expenses are composed of general administrative and other expenses of operating the corporate headquarters and other global administrative facilities, as well as research and development expenses of the corporate technical center.

(3) Other includes certain items that impact Cost of goods sold and Selling, general administrative, and other expenses on Alcoa Corporation's Statement of Consolidated Operations that are not included in the Adjusted EBITDA of the reportable segments.

**Environmental Matters**

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

**Liquidity and Capital Resources**

Alcoa Corporation's primary future cash flows are centered on operating activities, particularly working capital, as well as sustaining and return-seeking capital expenditures. Alcoa's ability to fund its cash needs depends on the Company's ongoing ability to generate and raise cash in the future. Although management believes that Alcoa's future cash from operations, together with the Company's Revolving Credit Facility (as defined below) and access to capital markets, will provide adequate resources to fund operating and investing needs, the Company's access to, and the availability of, financing on acceptable terms in the future will be affected by many factors, including: (i) Alcoa Corporation's credit rating; (ii) the liquidity of the overall capital markets; and (iii) the current state of the economy and commodity markets. There can be no assurances that the Company will continue to have access to capital markets on terms acceptable to Alcoa Corporation.

Changes in market conditions caused by the COVID-19 pandemic could have adverse effects on Alcoa's ability to obtain additional financing and cost of borrowing. Inability to generate sufficient earnings could impact the Company's ability to meet the financial covenants in our outstanding debt and revolving credit facility agreements and limit our ability to access these sources of liquidity or refinance or renegotiate our outstanding debt or credit agreements on terms acceptable to the Company. Additionally, the impact on market conditions from the COVID-19 pandemic could adversely affect the liquidity of Alcoa's customers, suppliers, and joint venture partners and equity method investments, which could negatively impact the collectability of outstanding receivables and our cash flows.

The Company has completed the following actions thus far in 2021 to strengthen its balance sheet and provide more flexibility in the use of excess cash:

- On March 31, completed the sale of the Warrick Rolling Mill for initial net cash proceeds of $583; cash consideration of $598 less transaction costs of $7 and initial spending on site separation capital expenditures of $8;
- In March, issued $500 of 4.125% Senior Notes due 2029;
- On April 1, made discretionary contribution of $500 to its U.S. defined benefit pension plans;
- On April 7, fully redeemed $750 of 6.75% Senior Notes due 2024 at a redemption price equal to 103.375% plus accrued and unpaid interest; and,
- In June, completed the sale of the former Eastalco site for net cash proceeds of $94; cash consideration of $100 less transaction costs of $6.

Additionally, Management has taken actions to improve and maintain Alcoa's liquidity levers. These include amending the Company's Revolving Credit Facility to provide a more favorable leverage ratio calculation and a more favorable minimum interest expense coverage ratio.

The Company's liquidity options, including the credit facilities and the Receivables Purchase Agreement, provide flexibility in managing cash flows. Management believes that the Company's cash on hand, future operating cash flows, and liquidity options, combined with its strategic actions, are adequate to fund its near term operating and investing needs.

Alcoa Corporation's cost 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 Alcoa Corporation's debt by the major credit rating agencies.

**Cash from Operations**

Cash used for operations was $80 in the 2021 six-month period compared with cash provided from operations of $198 in the 2020 six-month period, resulting in an increase in cash used of $278 primarily caused by the discretionary pension contribution. Notable changes to sources and (uses) of cash include:

- $580 higher net income generation primarily on higher aluminum pricing;
- ($547) in certain working capital accounts (receivables, inventories, and accounts payable, trade), primarily an increase in receivables balance on higher aluminum and alumina prices in the 2021 six-month period;
- ($500) discretionary contribution to the Company's U.S. defined benefit pension plan; and,
- $100 from changes in accrued expenses caused primarily by lower payments on restructuring, other postretirement benefits, higher customer advances, and lower use of accrued vacation.

In the third quarter of 2020, AofA paid approximately $74 (A$107) to the ATO related to the tax dispute described in Note P to the Consolidated Financial Statements in Part I Item I of this Form 10-Q. Upon payment, AofA recorded a noncurrent prepaid tax asset, as the Company continues to believe it is more likely than not that AofA's tax position will be sustained and therefore is not recognizing

any tax expense in relation to this matter. In accordance with Australian tax laws, the initial interest assessment and additional interest are deductible against AofA's taxable income resulting in approximately $165 (A$219) and $7 (A$10) lower cash tax payments in the second half of 2020 and the first half of 2021, respectively. Interest compounded in future periods is also deductible against AofA's income in the respective periods. If AofA is ultimately successful, the interest deduction would become taxable as income in the year the dispute is resolved. In addition, should the ATO decide in the interim to reduce any interest already assessed, the reduction would be taxable as income at that point in time. During 2021, AofA will continue to record its tax provision and tax liability without effect of the ATO assessment, since it expects to prevail. The tax payable will remain on AofA's balance sheet as a noncurrent liability, increased by the tax effect of subsequent periods' interest deductions, until dispute resolution, which is expected to take several years. At June 30, 2021, the noncurrent liability resulting from the cumulative interest deductions was approximately $172 (A$229).

**Financing Activities**

Cash used for financing activities was $421 in the 2021 six-month period compared with $115 in the 2020 six-month period, resulting in an unfavorable change of $306.

The use of cash in the 2021 six-month period was primarily $775 for the full, early repayment of $750 aggregate principal amount outstanding of its 2024 Notes (including $25 redemption premium), $137 in net cash paid to Alumina Limited (see Noncontrolling interest in Results of Operations above) and $13 in financial contributions related to the divested Spanish facilities. The uses of cash were partially offset by the issuance of $500 aggregate principal amount 2029 Notes by ANHBV in March 2021 with net proceeds of approximately $493.

The use of cash in the 2020 six-month period included $90 in net cash paid to Alumina Limited (see Noncontrolling interest in Results of Operations above) and $24 in financial contributions related to the divested Spanish facilities.

Credit Facilities

The Revolving Credit Facility provides a $1,500 senior secured revolving credit facility to be used for working capital and/or other general corporate purposes of Alcoa Corporation and its subsidiaries. The Revolving Credit Facility includes a number of covenants, including financial covenants, that require maintenance of a specified interest expense coverage ratio and a leverage ratio. The leverage ratio compares total indebtedness to a calculated earnings metric as defined in the credit facility agreement to determine compliance with the financial covenant. The leverage ratio calculation also determines the maximum indebtedness the Company can have based on the defined earnings metric.

On March 4, 2021 (the Amendment No. 4 Effective Date), Alcoa Corporation and Alcoa Nederland Holding B.V. (ANHBV), a wholly-owned subsidiary of the Company, entered into an amendment (Amendment No. 4) to the Revolving Credit Facility (as amended, Revolving Credit Facility) that provides additional flexibility to the Company and ANHBV by (i) increasing the maximum leverage ratio from 2.50 to 1.00 to 2.75 to 1.00 as of the Amendment No. 4 Effective Date (which maximum leverage ratio had been temporarily increased to 3.00 to 1.00 prior to the Amendment No. 4 Effective Date), (ii) decreasing the minimum interest expense coverage ratio from 5.00 to 1.00 to 4.00 to 1.00 as of the Amendment No. 4 Effective Date, (iii) amending the definition of Total Indebtedness (as defined in the Revolving Credit Facility) to permit the Company to exclude the principal amount of new senior notes issued during 2021 from indebtedness for purposes of the calculation of the leverage ratio in fiscal year 2021 (subject to adjustments based on pension obligations funded) and (iv) ending temporary restrictions on the Company's ability to make certain restricted payments or incur incremental loans under the Revolving Credit Facility.

Amendment No. 4 also (i) provides additional debt capacity to permit the Company to issue up to $750 in aggregate principal amount of new senior notes prior to the end of fiscal year 2021 and (ii) a corresponding increase in the maximum leverage ratio commensurate with the increase in leverage resulting from the issuance of such notes up to the amount of pension obligations funded after the issuance of such notes but prior to December 31, 2021, which increase shall in any event not be in excess of the principal amount of such notes. Such additional increase in the maximum leverage ratio will be available beginning in the first quarter of 2022.

The Revolving Credit Facility provides a $1,500 senior secured revolving credit facility to be used for working capital and/or other general corporate purposes of Alcoa Corporation and its subsidiaries. In the fourth quarter of 2020, ANHBV elected to extend the period under which temporary adjustments in Amendment No. 3 would apply, through March 31, 2021. The amendment temporarily adjusted the manner in which Consolidated Cash Interest Expense and Total Indebtedness (as defined in the Revolving Credit Facility) are calculated with respect to the 5.500% Senior Notes due 2027 issued in July 2020. In addition, this election to extend the temporary amendments resulted in a reduction of the aggregate amount of commitments under the Revolving Credit Facility by approximately $245 during the first quarter of 2021, to $1,255. This reduction ended at the end of the first quarter of 2021, and the aggregate amount of commitments returned to $1,500 as of April 1, 2021.

At June 30, 2021, the maximum additional borrowing capacity available to the Company to remain in compliance with the maximum leverage ratio covenant in the Revolving Credit Facility was approximately $3,034. Therefore, the Company may access the entire amount of commitments under the Revolving Credit Facility. As of June 30, 2021, Alcoa Corporation was in compliance with all covenants. There were no borrowings outstanding at June 30, 2021, and there were no amounts borrowed during the second quarter and six-months ended 2021 related to this facility.

See Note K to the Consolidated Financial Statements in this Form 10-Q and Note M to the Consolidated Financial Statements in Part II Item 8 of the 2020 Annual Report on Form 10-K for additional information related to Alcoa's credit facilities.

144A Debt

In March 2021, ANHBV issued $500 aggregate principal amount of 2029 Notes in a private transaction exempt from the registration requirements of the Securities Act. The net proceeds of this issuance were $493 reflecting a discount to the initial purchasers of the 2029 Notes as well as issuance costs. The Company used the net proceeds, together with cash on hand, to contribute $500 to its U.S. defined benefit pension plans applicable to salaried and hourly employees on April 1, 2021, and to redeem in full the outstanding the 2024 Notes on April 7, 2021, and to pay transaction-related fees and expenses. The discount to the initial purchasers, as well as costs to complete the financing, was deferred and is being amortized to interest expense over the term of the 2029 Notes. Interest on the 2029 Notes is paid semi-annually in March and September, and interest payments will commence September 30, 2021.

**Investing Activities**

Cash provided from investing activities was $548 in the 2021 six-month period compared with $28 for the same period of 2020.

In the 2021 six-month period, the source of cash was primarily attributable to proceeds from the sale of assets of $705, primarily the Warrick Rolling Mill and Eastalco site sales, partially offset by $154 in capital expenditures, composed of $144 in sustaining projects and $10 in return-seeking projects.

In the 2020 six-month period, the source of cash was primarily attributable to proceeds from the sale of assets of $199, primarily the Gum Springs waste treatment facility, partially offset by $168 in capital expenditures, composed of $137 in sustaining projects and $31 in return-seeking projects.

**Contractual Obligations**

In March 2021, ANHBV issued $500 aggregate principal amount of 2029 Notes and issued a notice of redemption to redeem all $750 aggregate principal amount outstanding of its 2024 Notes. On April 7, 2021 (Redemption Date), ANHBV completed the redemption at a price equal to 103.375% of the principal amount of the 2024 Notes, plus accrued and unpaid interest to but not including the Redemption Date. Alcoa's interest related to total debt is expected to be $169 for 2021 (including $25 redemption premium), $255 for the 2022-2023 period, $255 for the 2024-2025 period, and $266 thereafter for a combined total of $945. Further, contractual obligations related to the repayment of long-term debt and short-term borrowings are expected to be $829 for 2021 (including the April redemption), $2 for the 2022-2023 period, $1 for the 2024-2025 period, and $2,251 thereafter for a combined total of $3,083.

In addition to redeeming the 2024 Notes, the Company used the net proceeds from the issuance of the notes being offered, together with cash on hand, to contribute $500 on April 1, 2021, to its U.S. defined benefit pension plans applicable to salaried and hourly employees.

Further, as a result of the enactment of the American Rescue Plan, which was signed into law on March 11, 2021, the Company intends to adopt the relief provisions allowable under the law related to single-employer pensions. As a result of the American Rescue Plan and the $500 unscheduled contribution, Alcoa's minimum required contribution to defined benefit pension plans in 2021 is now estimated to be approximately $135, of which approximately $105 is primarily for U.S. plans. Further, Alcoa's minimum required contributions to defined benefit pension plans are expected to be $220 for the 2022-2023 period, $205 for the 2024-2025 period, for a combined total of $560, with approximately 80% applicable to U.S. plans.

The $500 U.S. pension contribution in April was added to the Company's pre-funding balance, the current balance of which is more than sufficient to cover the U.S. portion of the minimum obligations presented. Under ERISA regulations, a plan sponsor that establishes a pre-funding balance by making discretionary contributions to a U.S. defined benefit pension plan may elect to apply all or a portion of this balance toward its minimum required contribution obligations to the related plan in future years. In 2021, management intends to make such election related to the Company's U.S. plans.

**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.

**Dissemination of Company Information**

Alcoa Corporation intends to make future announcements regarding company developments and financial performance through its website, http://www.alcoa.com, as well as through press releases, filings with the Securities and Exchange Commission, conference calls, and webcasts.

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

See the Derivatives and Other Financial Instruments section of Note M to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

**Item 4. Controls and Procedures.**

(a) Evaluation of Disclosure Controls and Procedures

Alcoa Corporation'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 U.S. Securities Exchange Act of 1934, as amended, as of the end of the period covered by this report, and they have concluded that these controls and procedures were effective as of June 30, 2021.

(b) Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting during the second quarter of 2021, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

## PART II – OTHER INFORMATION

### Item 1A. Risk Factors.

We face a number of risks that could materially and adversely affect our business, results of operations, cash flow, liquidity, or financial condition. A discussion of our risk factors can be found in Part I Item 1A. Risk Factors of Alcoa Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2020. As of June 30, 2021, there have been no material changes to the risk factors. The coronavirus (COVID-19) pandemic continues to present a risk to the business and the impacts from COVID-19 could exacerbate other risks discussed in Part I Item 1A. Risk Factors of Alcoa Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2020, any of which could have a material adverse effect on us. This situation is continuously evolving, and additional impacts may arise of which we are not currently aware.

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

Issuer Purchases of Equity Securities

On October 17, 2018, Alcoa Corporation announced that its Board of Directors authorized a common stock repurchase program under which the Company may purchase shares of its outstanding common stock up to an aggregate transactional value of $200, depending on cash availability, market conditions, and other factors. Repurchases under the program may be made using a variety of methods, which may include open market purchases, privately negotiated transactions, or pursuant to a Rule 10b5-1 plan. This program does not have a predetermined expiration date. Alcoa Corporation intends to retire repurchased shares of common stock.

| First Quarter 2021 | Total Number of Shares Purchased | Weighted Average Price Paid Per Share | Total Number of Shares Purchased as Part of Publicly Announced Program | Approximate Dollar Value of Shares that May Yet be Purchased Under the Program |
|---|---|---|---|---|
| April 1 to April 30 | - | $ - | - | $ 150,000,000 |
| May 1 to May 31 | - | - | - | 150,000,000 |
| June 1 to June 30 | - | - | - | 150,000,000 |
| **Total** | - | - | - | |

**Item 6. Exhibits.**

| | |
|---|---|
| 31.1 | Certification of Principal Executive Officer required by Rule 13a-14(a) or 15d-14(a) |
| 31.2 | Certification of Principal Financial Officer required by Rule 13a-14(a) or 15d-14(a) |
| 32.1 | Certification of Principal Executive Officer required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code |
| 32.2 | Certification of Principal Financial Officer required by Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code |
| 101.INS | Inline 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 | Inline XBRL Taxonomy Extension Schema Document |
| 101.CAL | Inline XBRL Taxonomy Extension Calculation Linkbase Document |
| 101.DEF | Inline XBRL Taxonomy Extension Definition Linkbase Document |
| 101.LAB | Inline XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE | Inline XBRL Taxonomy Extension Presentation Linkbase Document |
| 104 | Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101) |

**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.

Alcoa Corporation

| | |
|---|---|
| July 29, 2021 | /s/ William F. Oplinger |
| Date | William F. Oplinger<br>Executive Vice President and<br>Chief Financial Officer<br>(Principal Financial Officer) |
| July 29, 2021 | /s/ Molly S. Beerman |
| Date | Molly S. Beerman<br>Senior Vice President and Controller<br>(Principal Accounting Officer) |

**EXHIBIT 31.1**

**Certifications**

I, Roy C. Harvey, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Alcoa Corporation;
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: July 29, 2021

/s/ ROY C. HARVEY
Name: Roy C. Harvey
Title: President and Chief Executive Officer

**EXHIBIT 31.2**

**Certifications**

I, William F. Oplinger, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Alcoa Corporation;
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: July 29, 2021

/s/ WILLIAM F. OPLINGER

Name: William F. Oplinger
Title: Executive Vice President and Chief Financial Officer

**EXHIBIT 32.1**

**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), the undersigned officer of Alcoa Corporation, a Delaware corporation (the "Company"), does hereby certify that:

1. The Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (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,
2. The information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: July 29, 2021

/s/ ROY C. HARVEY
Name: Roy C. Harvey
Title: President and Chief Executive 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.

**EXHIBIT 32.2**

**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), the undersigned officer of Alcoa Corporation, a Delaware corporation (the "Company"), does hereby certify that:

1. The Quarterly Report on Form 10-Q for the quarter ended June 30, 2021 (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,
2. The information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: July 29, 2021

/s/ WILLIAM F. OPLINGER
Name: William F. Oplinger
Title: 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.