

The Element of **Possibility**[™]

1st Quarter Earnings

Alcoa Corporation

April 22, 2020



Cautionary statement regarding forward-looking statements

This presentation contains statements that relate to future events and expectations and as such constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those containing such words as “anticipates,” “believes,” “could,” “estimates,” “expects,” “forecasts,” “goal,” “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 performance; statements about strategies, outlook, and business and financial prospects; and statements about 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; (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 costs or uncertainty of energy supply; (g) declines in the discount rates used to measure pension 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, or strengthening of competitiveness and operations anticipated from portfolio actions, operational and productivity improvements, cash sustainability, 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, 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 and work stoppages; (l) the outcome of contingencies, including legal proceedings, government or regulatory investigations, and environmental remediation; (m) the impact of cyberattacks and potential information technology or data security breaches; and (n) the other risk factors discussed in Item 1A of Alcoa Corporation’s Form 10-K for the fiscal year ended December 31, 2019 and other reports filed by Alcoa Corporation with the U.S. Securities and Exchange Commission (SEC). 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.

Non-GAAP financial measures

Some of the information included in this presentation is derived from Alcoa's consolidated financial information but is not presented in Alcoa's financial statements prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). Certain of these data are considered "non-GAAP financial measures" under SEC rules. Alcoa Corporation believes that the presentation of non-GAAP financial measures is useful to investors because such measures provide both additional information about the operating performance of Alcoa Corporation and insight on the ability of Alcoa Corporation to meet its financial obligations by adjusting the most directly comparable GAAP financial measure for the impact of, among others, "special items" as defined by the Company, non-cash items in nature, and/or nonoperating expense or income items. The presentation of non-GAAP financial measures is not intended to be a substitute for, and should not be considered in isolation from, the financial measures reported in accordance with GAAP. Reconciliations to the most directly comparable GAAP financial measures and management's rationale for the use of the non-GAAP financial measures can be found in the appendix to this presentation.

Glossary of terms

A glossary of abbreviations and defined terms used throughout this presentation can be found in the appendix.

Roy Harvey

President and Chief Executive Officer



Our values are our guide, even in uncertain times



1Q20 earnings conference call

- Safety update
- COVID-19
 - People and operations
 - Aluminum market impacts
- Alcoa actions
- 1Q20 earnings and FY20 outlook

OUR VALUES

Act with Integrity

Operate with Excellence

Care for People

Taking actions to maintain safe and stable operations



COVID-19 Alcoa impacts and actions

Care and safety

- Prioritizing health and safety of employees in alignment with public health regulations
- Supporting employees with COVID-19; minimizing risk of exposure for others
- Adjusted shift schedules to socially distance
- Teams working from home if possible
- All nonessential business travel suspended
- Alcoa Foundation donating \$4 million to fund community response activities at Alcoa operating locations

Operations

- All of Alcoa's bauxite mines, alumina refineries, and aluminum manufacturing facilities remain in operation
- Implemented global hiring restrictions
- Reviewing all non-critical maintenance activities
- Halting or slowing pot relining at some plants
- Pursuing aggressive cash savings
- Bécancour restart slowed, currently ~85% complete

Operations, shipments continue, though with COVID-19 impacts



Alcoa segment dynamics and COVID-19 impacts

| | Bauxite | Alumina | Aluminum |
|------------------|---|--|--|
| Segment dynamics | <ul style="list-style-type: none">▪ Largely long-term contracts with some annual adjustments▪ Steady demand based on 1Q20 world ex-China alumina refinery competitiveness▪ Diesel fuel purchased at market rates, other costs largely fixed | <ul style="list-style-type: none">▪ 95% of sales priced on index or fixed price basis▪ Ability to shift to spot customers as needed▪ Integration safeguards bauxite supply and lowers costs▪ Use less caustic than industry average, priced quarterly | <ul style="list-style-type: none">▪ Priced at LME plus regional premium, sold delivered▪ Value add products made for manufacturers can be shifted into commodity-grade products▪ ~70% of operating smelter power contracts LME or market-based▪ Carbon purchases priced quarterly |
| COVID-19 impacts | <ul style="list-style-type: none">▪ Shipments and pricing largely unaffected in 1Q20▪ Bauxite shipments and pricing expected to be stable in 2Q20 | <ul style="list-style-type: none">▪ One third-party smelter-grade alumina customer announced 50% production cut; sales to be diverted elsewhere▪ Pricing has declined substantially | <ul style="list-style-type: none">▪ Conversion of ~20% of 2Q20 value-add product sales to commodity-grade ingot due to customers requesting shipment postponements and declaring force majeure▪ Pricing has declined substantially |

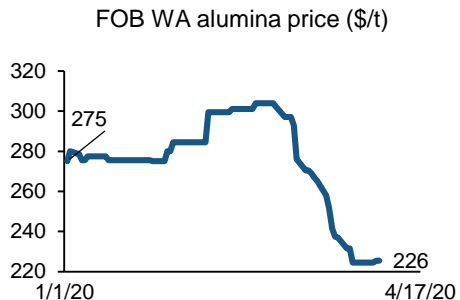
Rising stocks; lower prices increase cash negative %



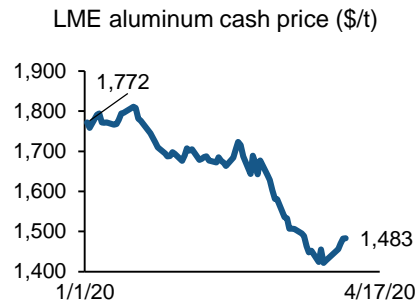
2020 market dynamics

Inventory & Prices

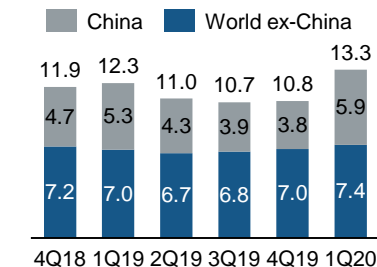
Alumina



Aluminum

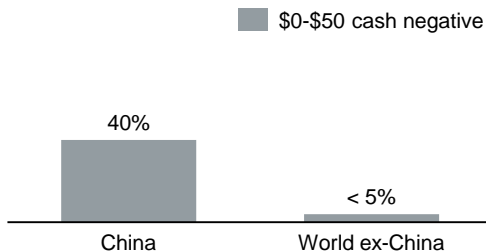


Global total aluminum stocks¹ (Mt)

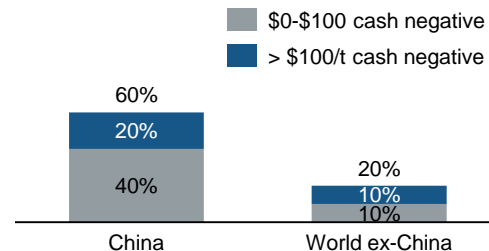


Industry Profitability
March 2020

Refining production cash negative (\$/t)



Smelting production cash negative (\$/t)

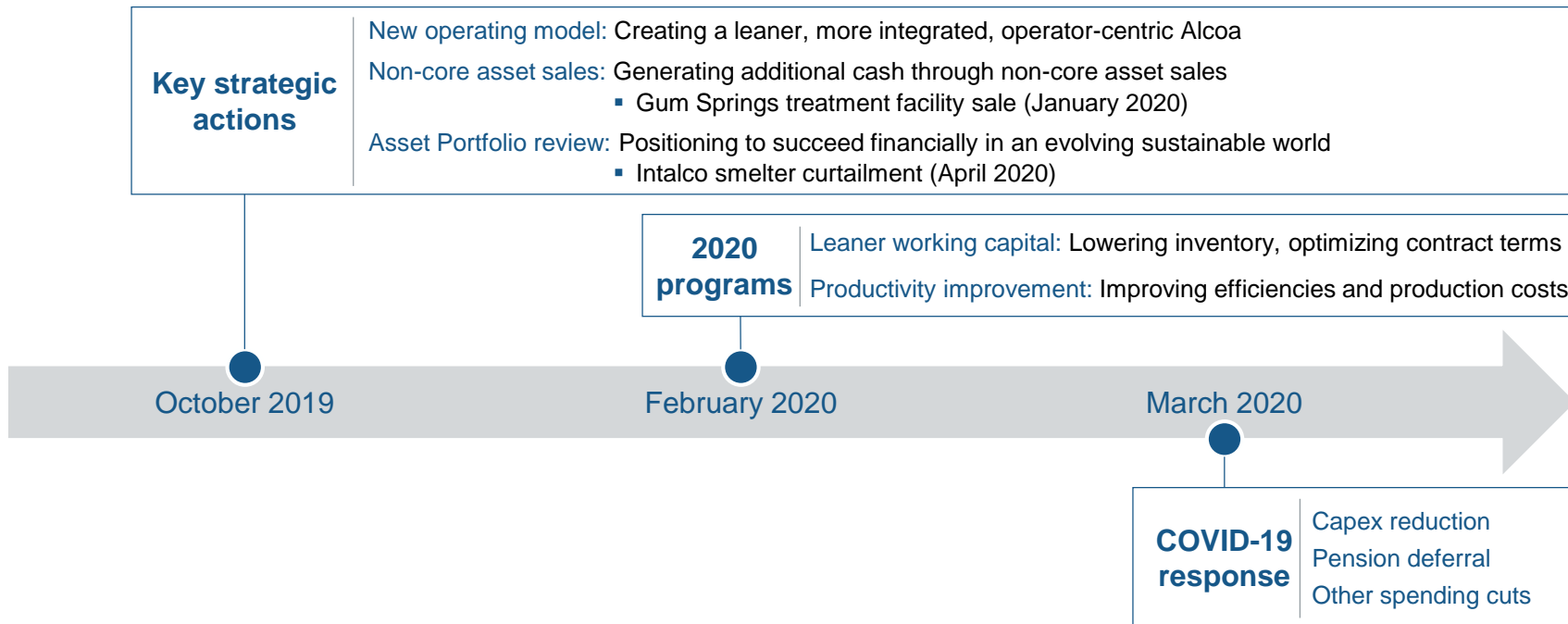


Sources: Alcoa analysis, Baiinfo, Aladdiny, CRU, LME, Platts. 1. Includes reported and unreported stocks at end of period.

Acted early, ~\$900 million of FY20 cash levers



Key strategic actions, 2020 programs, COVID-19 response



William Oplinger

Executive Vice President and Chief Financial Officer



Revenues, Adjusted EBITDA, reflect softer market



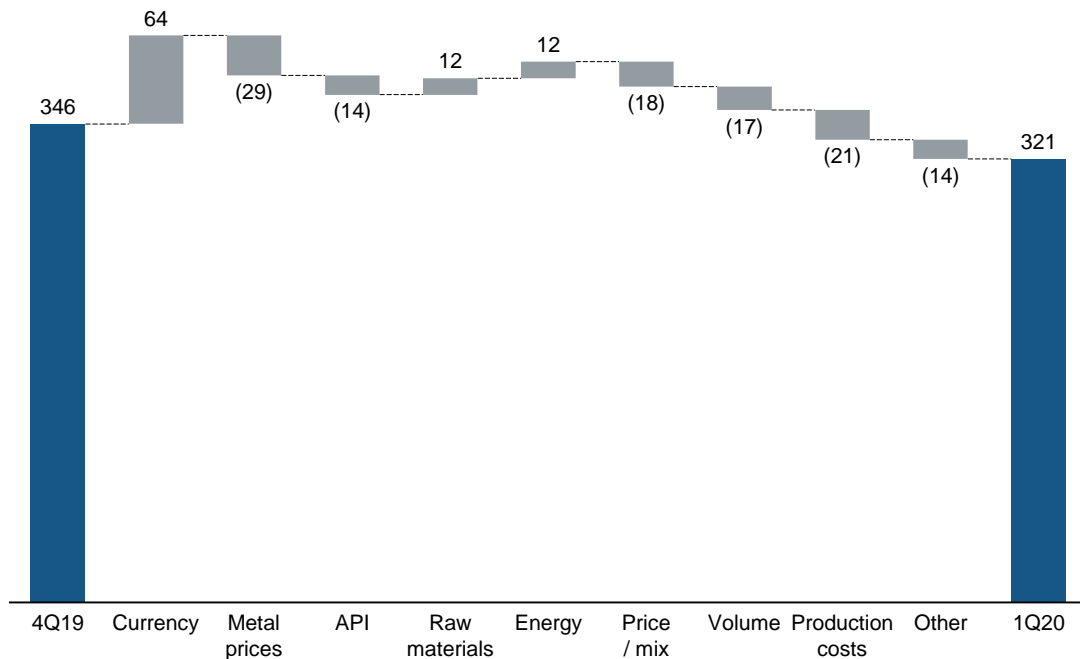
Quarterly income statement highlights

| M, Except realized prices and per share amounts | 1Q19 | 4Q19 | 1Q20 | Prior year change | Sequential change |
|---|----------|----------|-----------------|-------------------|-------------------|
| Income statement highlights | | | | | |
| Revenue | \$2,719 | \$2,436 | \$2,381 | \$(338) | \$(55) |
| Restructuring and other charges, net | \$113 | \$363 | \$2 | \$(111) | \$(361) |
| Provision for income taxes | \$150 | \$54 | \$80 | \$(70) | \$26 |
| Net (loss) income attributable to Alcoa Corporation | \$(199) | \$(303) | \$80 | \$279 | \$383 |
| Diluted (loss) earnings per share | \$(1.07) | \$(1.63) | \$0.43 | \$1.50 | \$2.06 |
| Adjusted income statement highlights | | | | | |
| Adjusted EBITDA excluding special items | \$467 | \$346 | \$321 | \$(146) | \$(25) |
| Provision for income taxes | \$117 | \$86 | \$66 | \$(51) | \$(20) |
| Operational tax rate | 54.5% | 99.5% | 78.5% | 24.0% pts. | (21.0)% pts. |
| Adjusted net loss attributable to Alcoa Corporation | \$(43) | \$(57) | \$(42) | \$1 | \$15 |
| Adjusted diluted loss per share | \$(0.23) | \$(0.31) | \$(0.23) | - | \$0.08 |

Seasonality and market prices impact Adjusted EBITDA



Adjusted EBITDA excluding special items sequential changes, \$M



| | 4Q19 | 1Q20 | Change |
|---------------------------|--------------|--------------|---------------|
| Bauxite | \$132 | \$120 | \$(12) |
| Alumina | 133 | 193 | 60 |
| Aluminum | 75 | 62 | (13) |
| Segment total | 340 | 375 | 35 |
| Transformation | (6) | (16) | (10) |
| Intersegment eliminations | 40 | (8) | (48) |
| Other corporate | (28) | (30) | (2) |
| Total | \$346 | \$321 | \$(25) |

Maintaining focus on balance sheet, cash balance \$0.8B

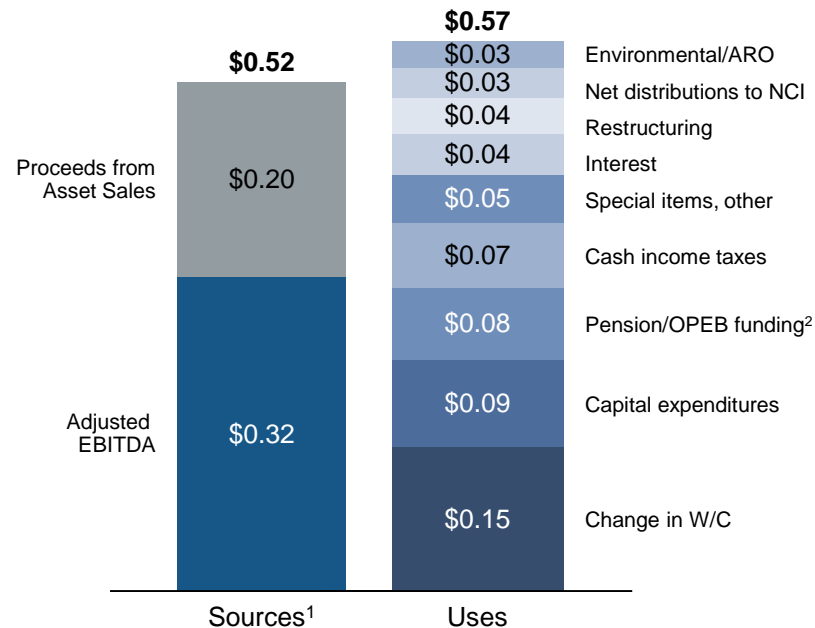


Key financial metrics and YTD cash flow information

Key financial metrics

| | |
|--|--------------------------------|
| 1Q20 Days working capital | 1Q20 Return on equity |
| 31 Days | (3.9)% |
| 1Q20 Capital expenditures | Proportional adjusted net debt |
| \$91M | \$3.3B |
| 1Q20 Free cash flow less net NCI distributions | 1Q20 Cash balance |
| \$(212)M | \$0.8B |

YTD Cash flow information, \$B



1. Sources defined as Adjusted EBITDA excluding special items plus proceeds from asset sales.
2. Pension/OPEB funding is reflected net of related expenses within Adjusted EBITDA.

Pension/OPEB impacts mixed, cash funding flexibility



Pension/OPEB balance sheet and cash funding considerations as of March 31, 2020

Pension/OPEB balance sheet impact

- Remeasurement of assets and liabilities occurs at year end based on December 31 discount rates and full year actual asset return performance
- Pension expected return on plan assets is 6.28%; preliminary actual returns were ~(-7%) through March 31, 2020
- Discount rate for pension/OPEB liabilities up ~20 basis points from December 31 to March 31
 - Pension rate: 3.12% at December 31; 3.35% at March 31
 - OPEB rate: 3.12% at December 31; 3.30% at March 31
 - Approximates 10-15 year investment grade corporate bond
 - 25 basis point change impacts net liability by \$175 million

Pension/OPEB cash funding impact

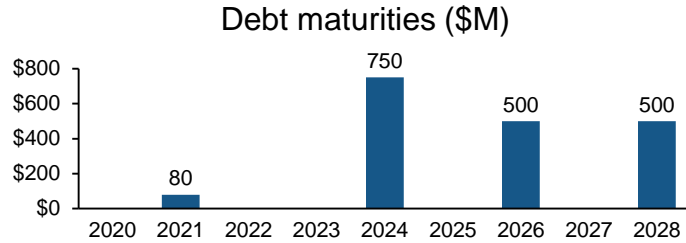
- U.S. pension cash funding requirements are based on smoothed asset performance and 25-year average segment rates mandated by the IRS
- Pension funding requirements for FY20 are set
- The COVID-19 stimulus allows 2020 U.S. pension funding of ~\$220 million to be deferred to January 1, 2021
- U.S. pension pre-funding balance of ~\$380 million available for future
- OPEB cash requirements are pay as you go; estimated to be ~\$100 million in FY20

Strong debt profile and cash position; significant levers



Liquidity, cash, and financial strengthening during COVID-19 pandemic

Debt maturities and available credit



- No significant long term debt maturities until 2024
- Revolving credit facility of \$1.5 billion and a separate credit facility of \$123 million¹ in place; no borrowings in 1Q20
- Amended revolving credit facility in April to temporarily increase borrowing base availability for the next four quarters

1. NOK 1.3 billion credit line

Cash position and levers

- Cash on hand at March 31, 2020 of \$829 million
- Targeting additional cash from reduced working capital of \$75 million to \$100 million, and reduced cash production costs, year over year, of \$100 million
- Receivables purchase agreement in place to allow \$120 million in sales
- COVID-19 major cash levers
 - Reducing total capital expenditures \$100 million from original outlook to \$375 million
 - Reducing environmental and ARO spending \$25 million from original FY20 outlook
 - Ability to defer ~\$220 million in U.S. pension funding until January 2021; reviewing other stimulus programs, including payroll tax deferral
 - Hiring restrictions, travel suspension to generate cash savings

Cash actions total ~\$900 million



Impacts of announced FY20 actions, before tax and noncontrolling interest, \$M

| | Cash actions | | | FY20 |
|------------------------------------|--------------|-------------|-------------|-------------|
| | Run rate | One time | Deferral | |
| Key strategic actions | | | | |
| New operating model | 60 | | | 45 |
| Non-core asset sales | | 200 | | 200 |
| Portfolio review | 35-100 | (25) | | 10-75 |
| 2020 programs | | | | |
| Leaner working capital | | 75-100 | | 75-100 |
| Lower production costs | 100 | | | 100 |
| COVID-19 response | | | | |
| Reduce capital expenditures | | 100 | | 100 |
| Defer environmental/ARO | | | 25 | 25 |
| Defer pension funding to 2021 | | | 220 | 220 |
| Hiring, travel, other restrictions | | 20 | 15 | 35 |
| Total | ~225 | ~400 | ~260 | ~900 |

FY20 Key metrics

| Income statement excl. special items impacts | | |
|--|-------------|----------------|
| | 1Q20 Actual | FY20 Outlook |
| Bauxite shipments (Mdmmt) | 11.9 | 48.0 – 49.0 |
| Alumina shipments (Mmt) | 3.4 | 13.6 – 13.7 |
| Aluminum shipments (Mmt) ¹ | 0.7 | 2.9 – 3.0 |
| Transformation (adj. EBITDA impacts) | \$(16)M | ~ \$(75)M |
| Intersegment elims. (adj. EBITDA impacts) | \$(8)M | Varies |
| Other corporate (adj. EBITDA impacts) | \$(30)M | ~ \$(90)M |
| Depreciation, depletion and amortization | \$170M | ~ \$685M |
| Non-operating pension/OPEB expense | \$25M | ~ \$100M |
| Interest expense | \$30M | \$125-130M |
| Operational tax rate ² | 78.5% | Varies |
| Net income of noncontrolling interest | \$60M | 40% of AWAC NI |

| Cash flow impacts | | |
|--|-------------|--|
| | 1Q20 Actual | FY20 Outlook |
| Minimum required pension/all OPEB funding | \$72M | ~ \$180M |
| Additional pension funding | \$0M | Will vary based on market conditions and cash availability |
| Discretionary debt repayment | \$0M | |
| Stock repurchases | \$0M | |
| Return-seeking capital expenditures ³ | \$21M | ~ \$25M |
| Sustaining capital expenditures ³ | \$70M | ~ \$350M |
| Payment of prior year income taxes ⁴ | \$32M | ~ \$50M |
| Current period cash taxes ² | \$38M | Varies |
| Environmental and ARO payments ⁵ | \$28M | ~ \$125M |
| Impact of restructuring and other charges | \$37M | TBD |

Note: The COVID-19 pandemic has increased the potential for variance of actual results compared to our outlook. Additional market sensitivities and business information are included in appendix.

1. Intalco curtailment reflected in outlook.
2. Estimate will vary with market conditions and jurisdictional profitability.
3. AWAC portion of FY20 Outlook: ~20% of return-seeking capital expenditures, and ~60% of sustaining capital expenditures.
4. Net of pending tax refunds.
5. As of March 31, 2020, the environmental remediation reserve balance was \$327M and the ARO liability was \$649M.

Roy Harvey

President and Chief Executive Officer



Market resilience through early action and shared values



Key takeaways



- **Care and safety**
Protecting our employees and our operations throughout the COVID-19 pandemic
- **Early action**
Prepared and well positioned through strengthened balance sheet and strategic initiatives
- **Building our future**
\$900 million targeted 2020 cash actions, to help set the foundation for the future



Drive results and deliver returns to stockholders over the long term

Appendix



Continuing improvement actions during uncertain times



1Q20 Financial results and business review

1Q20 Financial results

- Net income of \$80 million, or \$0.43 per share; excluding special items, adjusted net loss of \$42 million, or \$0.23 per share
- Adjusted EBITDA excluding special items of \$321 million
- Cash balance at \$0.8 billion on March 31

Business review

- February contractor fatality in Brazil
- Closed Gum Springs sale and received \$200 million cash proceeds
- Announced year over year working capital reduction and production cost improvement targets of \$75-\$100 million and \$100 million, respectively
- Maintained production and shipment levels while instituting comprehensive COVID-19 response protocols
- Market uncertainty driving potential for larger aluminum surplus

Quarterly income statement



Quarterly income statement

M, Except realized prices and per share amounts

| | 1Q19 | 4Q19 | 1Q20 | Prior Year Change | Sequential Change |
|---|----------|----------|----------------|-------------------|-------------------|
| Realized primary aluminum price (\$/mt) | \$2,219 | \$2,042 | \$1,988 | \$(231) | \$(54) |
| Realized alumina price (\$/mt) | \$385 | \$291 | \$299 | \$(86) | \$8 |
| Revenue | \$2,719 | \$2,436 | \$2,381 | \$(338) | \$(55) |
| Cost of goods sold | 2,180 | 2,048 | 2,025 | (155) | (23) |
| SG&A and R&D expenses | 91 | 68 | 67 | (24) | (1) |
| Adjusted EBITDA | 448 | 320 | 289 | (159) | (31) |
| Depreciation, depletion and amortization | 172 | 183 | 170 | (2) | (13) |
| Other expenses (income), net | 41 | 44 | (132) | (173) | (176) |
| Interest expense | 30 | 31 | 30 | - | (1) |
| Restructuring and other charges, net | 113 | 363 | 2 | (111) | (361) |
| Provision for income taxes | 150 | 54 | 80 | (70) | 26 |
| Net (loss) income | (58) | (355) | 139 | 197 | 494 |
| Less: Net income (loss) attributable to noncontrolling interest | 141 | (52) | 59 | (82) | 111 |
| Net (loss) income attributable to Alcoa Corporation | \$(199) | \$(303) | \$80 | \$279 | \$383 |
| Diluted (loss) earnings per share | \$(1.07) | \$(1.63) | \$0.43 | \$1.50 | \$2.06 |
| Diluted average shares ¹ | 185.3 | 185.6 | 186.6 | 1.3 | 1.0 |

1. For 1Q19 and 4Q19, share equivalents related to employee stock-based compensation were excluded from Diluted average shares as the impact was anti-dilutive given a net loss attributable to Alcoa Corporation.

Breakdown of special items by income statement classification – gross basis

| <i>M, Except per share amounts</i> | 1Q19 | 4Q19 | 1Q20 | Description of significant <u>1Q20</u> special items |
|---|----------|----------|-----------------|--|
| Net (loss) income attributable to Alcoa Corporation | \$(199) | \$(303) | \$80 | |
| Diluted (loss) earnings per share | \$(1.07) | \$(1.63) | \$0.43 | |
| Special items | \$156 | \$246 | \$(122) | |
| <i>Cost of goods sold</i> | 17 | 26 | 32 | Bécancour restart costs |
| <i>SG&A and R&D expenses</i> | 2 | - | - | |
| <i>Restructuring and other charges, net</i> | 113 | 363 | 2 | |
| <i>Other expenses (income), net</i> | (9) | (1) | (169) | Gain on Gum Springs asset sale |
| <i>Provision for income taxes</i> | 33 | (32) | 14 | Interim tax impacts |
| <i>Noncontrolling interest</i> | - | (110) | (1) | |
| Adjusted net loss attributable to Alcoa Corporation | \$(43) | \$(57) | \$(42) | |
| Adjusted diluted loss per share | \$(0.23) | \$(0.31) | \$(0.23) | |

Quarterly income statement excluding special items



Quarterly income statement excluding special items

| <i>M, Except realized prices and per share amounts</i> | 1Q19 | 4Q19 | 1Q20 | Prior Year Change | Sequential Change |
|---|----------|----------|-----------------|-------------------|-------------------|
| Realized primary aluminum price (\$/mt) | \$2,219 | \$2,042 | \$1,988 | \$(231) | \$(54) |
| Realized alumina price (\$/mt) | \$385 | \$291 | \$299 | \$(86) | \$8 |
| Revenue | \$2,719 | \$2,436 | \$2,381 | \$(338) | \$(55) |
| Cost of goods sold | 2,163 | 2,022 | 1,993 | (170) | (29) |
| COGS % of Revenue | 79.6% | 83.0% | 83.7% | 4.1% pts. | 0.7% pts. |
| SG&A and R&D expenses | 89 | 68 | 67 | (22) | (1) |
| SG&A and R&D % of Revenue | 3.3% | 2.8% | 2.8% | (0.5)% pts. | 0.0% pts. |
| Adjusted EBITDA | 467 | 346 | 321 | (146) | (25) |
| Depreciation, depletion and amortization | 172 | 183 | 170 | (2) | (13) |
| Other expenses, net | 50 | 45 | 37 | (13) | (8) |
| Interest expense | 30 | 31 | 30 | - | (1) |
| Provision for income taxes | 117 | 86 | 66 | (51) | (20) |
| Operational tax rate | 54.5% | 99.5% | 78.5% | 24.0% pts. | (21.0%) pts. |
| Adjusted net income | 98 | 1 | 18 | (80) | 17 |
| Less: Adjusted net income attributable to noncontrolling interest | 141 | 58 | 60 | (81) | 2 |
| Adjusted net loss attributable to Alcoa Corporation | \$(43) | \$(57) | \$(42) | \$1 | \$15 |
| Adjusted diluted loss per share | \$(0.23) | \$(0.31) | \$(0.23) | \$0.0 | \$0.08 |
| Diluted average shares ¹ | 185.3 | 185.6 | 185.7 | 0.4 | 0.1 |

1. For all periods presented, share equivalents related to employee stock-based compensation were excluded from Diluted average shares as the impact was anti-dilutive given an adjusted net loss attributable to Alcoa Corporation.

Strengthening the Company, 2017-2019



Key actions

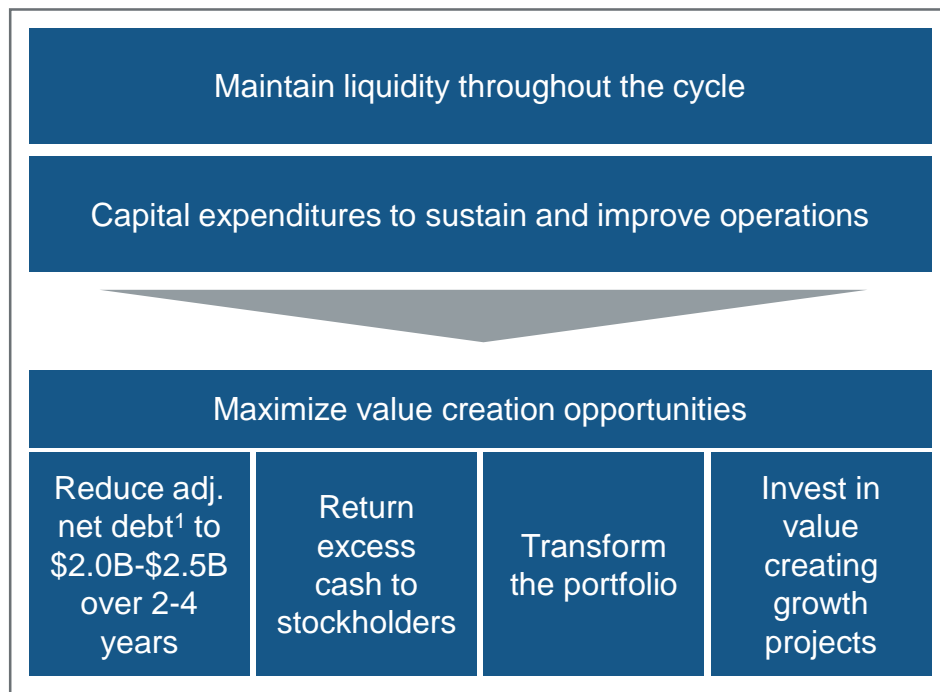
2017 – 2018

- Revitalized safety program; zero fatalities in 2018
- Restarted Portland smelter and Lake Charles calciner
- Streamlined business units to three, reduced administrative locations, relocated headquarters to Pittsburgh
- Set annual production records
- Terminated Rockdale power contract, closed site
- Restarted Warrick smelter
- Divested Portovesme smelter
- Launched ELYSIS™ joint venture
- Renegotiated revolving credit for more favorable terms
- Froze salaried pension plan as of January 1, 2021; prefunded pension with \$500 million debt issue
- Repurchased \$50 million in stock

2019

- Continued solid safety performance; zero fatalities
- Set annual and quarterly production records
- Modernized labor contracts in Canada, U.S. and Australia
- Began restart of Bécancour smelter
- Initiated Deschambault smelter creep project
- Divested Avilés and La Coruña facilities, as well as minority interest in Saudi rolling mill
- Implemented new operating model
- Announced Point Comfort alumina refinery closure
- Agreed to sale of Gum Springs treatment facility
- Achieved four ASI certifications across value chain
- Joined International Council on Mining and Metals
- Finalized Suriname closure agreements; transferred dam
- Took further actions to reduce pension/OPEB net liability

Capital allocation framework and considerations



- \$1 billion target for minimum cash balance
 - Sustaining capital expenditures of ~\$350 million, return seeking capital of ~\$25 million, per 2020 outlook
-
- Based on current discount rates and estimated asset returns, expect meeting adjusted net debt target solely through minimum required pension contributions
 - \$150 million available of existing \$200 million buyback authorization
 - Portfolio review and transformation over five years
 - Invest in major value creating projects

1. Adjusted net debt defined as the Alcoa proportional share of net debt plus net pension and OPEB liability

1Q20 Financial summary



Three months ending March 31, 2020, excluding special items

| <i>\$M</i> | Bauxite | Alumina | Aluminum ^{3,4} | Transformation | Intersegment eliminations | Other corporate | Alcoa Corporation |
|--|--------------|--------------|-------------------------|----------------|---------------------------|-----------------|-------------------|
| Total revenue | \$306 | \$1,043 | \$1,601 | \$5 | \$(574) | - | \$2,381 |
| Third-party revenue | \$71 | \$707 | \$1,598 | \$5 | - | - | \$2,381 |
| Adjusted EBITDA ¹ | \$120 | \$193 | \$62 | \$(16) | \$(8) | \$(30) | \$321 |
| <i>Adjusted EBITDA margin %</i> | <i>39.2%</i> | <i>18.5%</i> | <i>3.9%</i> | | | | <i>13.5%</i> |
| Depreciation, depletion and amortization | \$34 | \$49 | \$81 | - | - | \$6 | \$170 |
| Other (income) expenses, net ² | - | \$9 | \$(5) | - | - | \$33 | \$37 |
| Interest expense | | | | | | | \$30 |
| Provision for income taxes | | | | | | | \$66 |
| Adjusted net income | | | | | | | \$18 |
| Net income attributable to noncontrolling interest | | | | | | | \$60 |
| Adjusted net loss attributable to Alcoa Corp. | | | | | | | \$(42) |

1. Includes the Company's proportionate share of earnings from equity investments in certain bauxite mines, hydroelectric generation facilities, and an aluminum smelter located in Brazil, Canada, and/or Guinea.
2. Amounts for Alumina and Aluminum represent the Company's proportionate share of earnings from its equity investment in the Saudi Arabian joint venture.
3. Flat-rolled aluminum shipments, revenue and adjusted EBITDA were 0.07 Mmt, \$279M and \$0M, respectively.
4. Third-party energy sales volume, revenue and adjusted EBITDA in Brazil were 923 GWh, \$44M and \$31M, respectively.

1Q20 Adjusted EBITDA drivers by segment



Adjusted EBITDA excl. special items sequential changes by segment, \$M

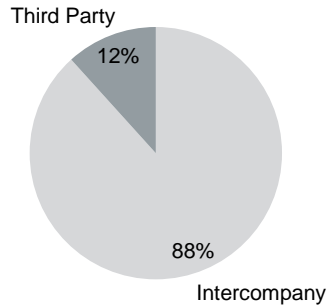
| Segment | Adj. EBITDA 4Q19 | Currency | Metal prices | API | Raw materials | Energy | Price/mix | Volume | Production costs | Other | Adj. EBITDA 1Q20 |
|----------------------|------------------|-----------|--------------|----------|---------------|-----------|-------------|-------------|------------------|-----------|------------------|
| Bauxite | \$132 | 7 | 0 | 0 | 0 | 0 | (5) | (4) | (2) | (8) | \$120 |
| Alumina | \$133 | 48 | 0 | (6) | 9 | 10 | (13) | (10) | (4) | 26 | \$193 |
| Aluminum | \$75 | 9 | (32) | 11 | 3 | 2 | 0 | (3) | (15) | 12 | \$62 |
| Segment Total | \$340 | 64 | (32) | 5 | 12 | 12 | (18) | (17) | (21) | 30 | \$375 |

Aluminum value chain

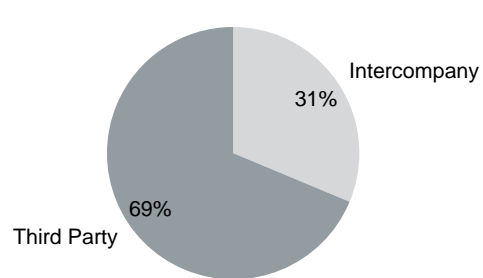
1Q20 Alcoa product shipments by segment, Mmt



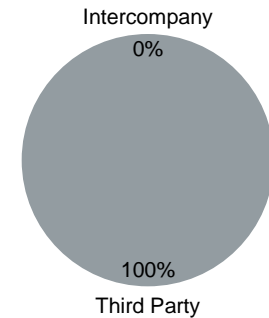
11.9 Mmt shipments



3.4 Mmt shipments



0.7 Mmt shipments

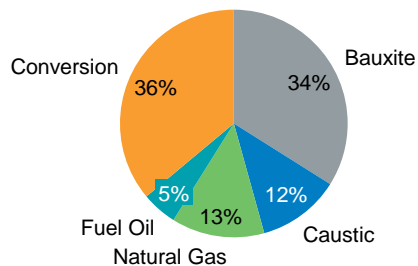


Composition of alumina and aluminum production costs



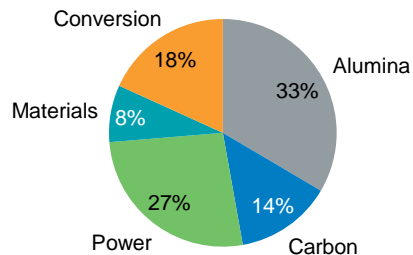
Alcoa 1Q20 production cash costs

Alumina refining



| Input Cost | Inventory Flow | Pricing Convention | FY20 Annual Cost Sensitivity |
|--------------------------|----------------|--------------------|------------------------------|
| Caustic Soda | 5 - 6 Months | Quarterly, Spot | \$10M per \$10/dmt |
| Natural Gas ¹ | N/A | N/A | N/A |
| Fuel Oil | 1 - 2 Months | Prior Month | \$3M per \$1/barrel |

Aluminum smelting



| Input Cost | Inventory Flow | Pricing Convention | FY20 Annual Cost Sensitivity |
|----------------|----------------|----------------------------|------------------------------|
| Alumina | ~2 Months | API on a 6-8 month average | \$39M per \$10/mt |
| Petroleum Coke | 1 - 2 Months | Quarterly | \$7M per \$10/mt |
| Coal Tar Pitch | 1 - 2 Months | Quarterly | \$1.8M per \$10/mt |

1. Australia is priced on a 16 quarter rolling average.

2020 Business information



Estimated annual Adjusted EBITDA sensitivities

| \$M | LME | API | Midwest | Europe | Japan | AUD | BRL | CAD | EUR | ISK | NOK |
|--------------|------------|-----------|------------|------------|------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Segment | + \$100/mt | + \$10/mt | + \$100/mt | + \$100/mt | + \$100/mt | + 0.01 0.66 ¹ | + 0.10 4.44 ¹ | + 0.01 1.34 ¹ | + 0.01 1.10 ¹ | + 10 127.78 ¹ | + 0.10 9.44 ¹ |
| Bauxite | | | | | | (4) | 3 | | | | |
| Alumina | | 119 | | | | (18) | 8 | | (1) | | |
| Aluminum | 219 | (47) | 141 | 86 | 27 | (0) | (2) | 2 | (3) | 11 | 2 |
| Total | 219 | 72 | 141 | 86 | 27 | (22) | 9 | 2 | (4) | 11 | 2 |

Pricing conventions

| Segment | 3 rd -Party Revenue |
|----------|--|
| Bauxite | <ul style="list-style-type: none"> Negotiated prices |
| Alumina | <ul style="list-style-type: none"> ~95% of third-party smelter grade alumina priced on API/spot API based on prior month average of spot prices |
| Aluminum | <ul style="list-style-type: none"> LME + Regional Premium + Product Premium Primary aluminum 15-day lag; flat rolled aluminum 30-day lag Brazilian hydroelectric sales at market prices |

Regional premium breakdown

| Regional premiums | % of 2020 Primary aluminum shipments |
|---------------------|---|
| Midwest | ~50% |
| Rotterdam Duty Paid | ~40% |
| CIF Japan | ~10% |

1. Average 1Q20 exchange rates

Items expected to impact adjusted EBITDA for 2Q20

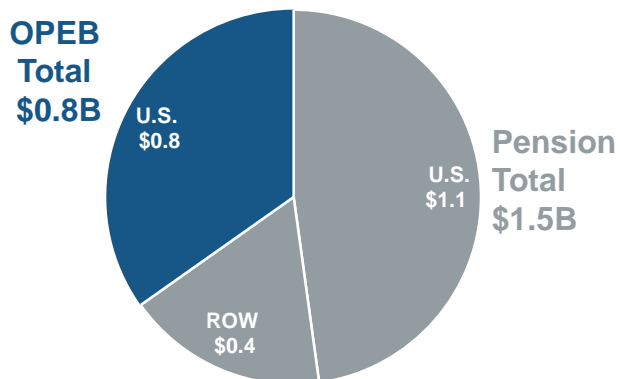
- In the Bauxite segment, Adjusted EBITDA is expected to be ~\$10 million lower, primarily due to non-recurrence of an annual sales contract true up
- In the Alumina segment, we are expecting lower raw material costs to yield ~\$10 million sequential benefit
- In the Aluminum segment
 - Lower alumina costs are estimated to produce sequential benefit of ~\$15 million
 - Benefits from lower smelter power costs will be more than offset by lower Brazil Hydros sales prices, while lower value add pricing and volumes will be partially offset by production cost improvements, yielding an expected ~\$10 million sequential decline
- Due to an unusually large change in quarter end exchange rates, 1Q20 adjusted EBITDA included a balance sheet revaluation benefit of \$36 million and a \$41 million sequential benefit compared to 4Q19; currency changes related to balance sheet revaluation are not incorporated into the currency sensitivities provided for EBITDA
- Estimate intercompany profit elimination for every \$10/mt decrease in API prices to be a \$8 to \$10 million favorable impact based on comparison of the average prices of the last two months of each quarter; consider intersegment eliminations as component of minority interest calculation
- The operational tax rate for each quarter and the full year is based on estimated full year profit before tax; with the market uncertainty related to the COVID-19 pandemic, we are suspending the outlook for our operational tax rate

Pension and OPEB summary



Net pension and OPEB liability and financial impacts

Net liability as of March 31, 2020¹



Pension funding status as of December 31, 2019

- U.S. ERISA ~80%
- GAAP Worldwide ~77%

U.S. pension contributions currently not tax deductible

1. The impact on the combined pension and OPEB liability of a 25 basis point change in the weighted average discount rate is approximately \$175 million.
2. Certain Canadian pension plans remeasured as of January 31, 2020 due to announced benefit freeze.
3. The COVID-19 stimulus allows 2020 pension funding of approximately \$220 million to be deferred to January 1, 2021.

Estimated financial impacts, \$M

| Expense impact | 2020 |
|---|--------------|
| Segment pension | \$50 |
| Segment OPEB | 5 |
| Corporate pension & OPEB | 5 |
| Total adj. EBITDA impact | 60 |
| Non-operating | 100 |
| Special items ² (curtailment/settlement) | 3 |
| Total expense impact | \$163 |

| Cash flow impact | 2020 |
|---|--------------|
| Minimum required pension funding ³ | \$80 |
| OPEB payments | 100 |
| Total cash impact | \$180 |

Investments summary



Investments listing and income statement location

| Investee | Country | Nature of Investment ⁴ | Ownership Interest | Carrying Value as of March 31, 2020 | Income Statement Location of Equity Earnings |
|--|--------------|-----------------------------------|--------------------|-------------------------------------|--|
| ELYSIS™ Limited Partnership | Canada | Aluminum smelting technology | 48.235% | | |
| Ma'aden Aluminium Company ¹ | Saudi Arabia | Aluminum smelter | 25.1% | | |
| Ma'aden Bauxite and Alumina Company ¹ | Saudi Arabia | Bauxite mine and Alumina refinery | 25.1% ⁵ | | |
| Subtotal Ma'aden and ELYSIS™ | | | | \$585M | Other (income) expenses, net |
| Consorcio Serra do Facão | Brazil | Hydroelectric generation facility | 34.97% | | |
| Energetica Barra Grande S.A. | Brazil | Hydroelectric generation facility | 42.18% | | |
| Halco Mining, Inc. ² | Guinea | Bauxite mine | 45.0% ⁵ | | |
| Manicouagan Power Limited Partnership | Canada | Hydroelectric generation facility | 40.0% | | |
| Mineração Rio do Norte S.A. (MRN) | Brazil | Bauxite mine | 18.2% ⁵ | | |
| Pechiney Reynolds Quebec, Inc. ³ | Canada | Aluminum smelter | 50.0% | | |
| Subtotal other | | | | \$474M | COGS |
| Total investments | | | | \$1,059M | |

1. Alcoa Corporation has an investment in a joint venture related to the ownership and operation of an integrated aluminum complex (bauxite mine, alumina refinery, and aluminum smelter) in Saudi Arabia. The joint venture is owned 74.9% by the Saudi Arabian Mining Company (known as "Ma'aden") and 25.1% by Alcoa Corporation.
2. Halco Mining, Inc. owns 100% of Boké Investment Company, which owns 51% of Compagnie des Bauxites de Guinée (CBG).
3. Pechiney Reynolds Quebec, Inc. owns a 50.1% interest in the Bécancour smelter in Quebec, Canada thereby entitling Alcoa Corporation to a 25.05% interest in the smelter. Through two wholly-owned Canadian subsidiaries, Alcoa Corporation also owns 49.9% of the Bécancour smelter.
4. Each of the investees either owns the facility listed or has an ownership interest in an entity that owns the facility listed.
5. A portion or all of each of these ownership interests are held by majority-owned subsidiaries that are part of AWAC.

Rigorous standard in place to manage tailings and residue



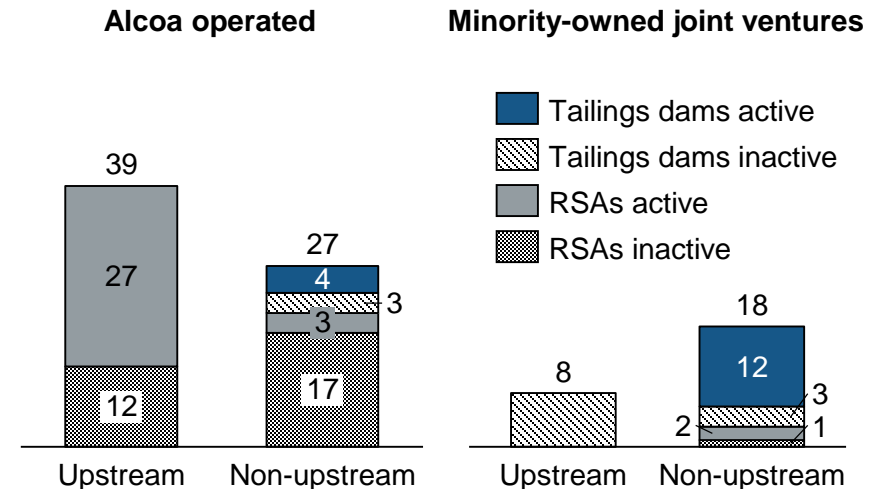
Tailings and residue impoundments management process and inventory

Robust and ongoing management process

- Established industry-leading standards over 25 years ago, reviewed regularly to incorporate updates
- Governance structure with global oversight; all Alcoa Impoundment Governance and Technical standards externally benchmarked and updated in 1Q20
- 2019 annual independent, third-party inspections of all Alcoa operated impoundments completed; inspections for non-operated facilities tracked for completion
- Facilities master planned, engineered, constructed, operated, maintained, closed in accordance with global standards; focused on progressively closing and rehabilitating inactive areas
- Led industry improvements including dry stacking and filtration technologies; residue filtration operational at Kwinana and Pinjarra alumina refineries
- International Council on Mining and Metals (ICMM) member, active in developing the Global Tailings Standard

Inventory of tailings dams & residue storage¹

- No Alcoa operated upstream bauxite tailings dams
- 39 Alcoa operated upstream residue storage areas (RSAs)



1. Information as of December 31, 2019. Inventory does not include 94 Alcoa operated and 17 minority joint venture other impoundments such as hydroelectric dams, fresh water reservoirs, stormwater management, process water, process materials outside of bauxite residue and tailings, closed and remediated legacy location RSAs, and ash ponds. 35

Production and capacity information



Alcoa Corporation annual consolidated amounts as of March 31, 2020

Bauxite production, Mdmt

| Mine | Country | 2019 Production |
|-------------------------|--------------|--------------------|
| Darling Range | Australia | 34.7 |
| Juruti | Brazil | 6.0 |
| Poços de Caldas | Brazil | 0.3 |
| Trombetas (MRN) | Brazil | 2.2 |
| Boké (CBG) | Guinea | 3.0 |
| Al Ba'itha ¹ | Saudi Arabia | 1.2 |
| Total | | 47.4 |

Alumina refining, kmt

| Facility | Country | Capacity | Curtailed |
|---------------------------------|---------------------|---------------|------------|
| Kwinana | Australia | 2,190 | - |
| Pinjarra | Australia | 4,234 | - |
| Wagerup | Australia | 2,555 | - |
| Poços de Caldas | Brazil | 390 | 214 |
| São Luís (Alumar) | Brazil | 1,890 | - |
| San Ciprián | Spain | 1,500 | - |
| Total | | 12,759 | 214 |
| <i>Ras Al Khair¹</i> | <i>Saudi Arabia</i> | <i>452</i> | <i>-</i> |

Aluminum smelting, kmt

| Facility | Country | Capacity | Curtailed |
|---------------------------------|---------------------|--------------|------------|
| Portland | Australia | 197 | 30 |
| São Luís (Alumar) | Brazil | 268 | 268 |
| Baie Comeau | Canada | 280 | - |
| Bécancour ² | Canada | 310 | 49 |
| Deschambault | Canada | 260 | - |
| Fjarðaál | Iceland | 344 | - |
| Lista | Norway | 94 | - |
| Mosjøen | Norway | 188 | - |
| San Ciprián | Spain | 228 | - |
| Intalco ³ | U.S. | 279 | 49 |
| Massena West | U.S. | 130 | - |
| Warrick | U.S. | 269 | 108 |
| Wenatchee | U.S. | 146 | 146 |
| Total | | 2,993 | 650 |
| <i>Ras Al Khair¹</i> | <i>Saudi Arabia</i> | <i>186</i> | <i>-</i> |

1. The Company's proportionate share of earnings from its equity investment in the Saudi Arabian joint venture does not impact adjusted EBITDA.
2. On July 26, 2019, the Bécancour smelter began the restart of curtailed smelting capacity.
3. On April 22, 2020, Alcoa announced curtailment of the remaining 230,000 metric tons of smelting capacity at Intalco; expected completion second quarter of 2020.

Valuation framework



Valuation framework key considerations

LTM ending
3/31/2020
Adj. EBITDA excl.
special items

| | | | | |
|--------------------------|---|--|---|--------|
| Business Operations | + | Bauxite | Economic value using market multiple of: i. AWAC joint venture, minus small portions of AWAC JV in Aluminum and Transformation | \$498M |
| | + | Alumina | ii. Ownership in certain mines and refineries outside the JV | \$918M |
| | + | Aluminum | Economic value using market multiple of: i. Smelters, casthouses, rolling mill, and energy assets ii. Smelters and casthouses restart optionality | \$183M |
| | - | Non-segment expenses (income) | Economic value using market multiple of: i. Net corporate expenses and Transformation | \$89M |
| | = | Enterprise value | | |
| Financial Considerations | - | Noncontrolling interest | Implied value of noncontrolling interest in AWAC JV, based on Alumina Limited's observed enterprise value | |
| | - | Debt & debt-like items ¹ | Book value of debt of \$1.8B (\$1.8B, >95% Alcoa), pension & OPEB net liabilities of \$2.2B (\$2.3B, >95% Alcoa; U.S. contributions not tax deductible), environmental & ARO liabilities of \$0.8B (\$1.0B, ~80% Alcoa) | |
| | + | Cash & equity investments ¹ | Cash position of \$0.7B (\$0.8B, ~85% Alcoa) plus carrying value of investments in the Ma'aden joint venture and ELYSIS™ of \$0.5B (\$0.6B, ~85% Alcoa) | |
| | = | Equity value | | |

1. Dollar amounts reflect Alcoa Corporation's consolidated balance sheet values as of March 31, 2020. The "Alcoa" percentages exclude amounts attributable to Alcoa Corporation's partner in the AWAC JV.

Adjusted EBITDA reconciliation



| <i>\$M</i> | 1Q19 | 2Q19 | 3Q19 | 4Q19 | FY19 | 1Q20 |
|---|----------------|----------------|----------------|----------------|------------------|--------------|
| Net (loss) income attributable to Alcoa | \$(199) | \$(402) | \$(221) | \$(303) | \$(1,125) | \$80 |
| Add: | | | | | | |
| Net income (loss) attributable to noncontrolling interest | 141 | 109 | 74 | (52) | 272 | 59 |
| Provision for income taxes | 150 | 116 | 95 | 54 | 415 | 80 |
| Other expenses (income), net | 41 | 50 | 27 | 44 | 162 | (132) |
| Interest expense | 30 | 30 | 30 | 31 | 121 | 30 |
| Restructuring and other charges, net | 113 | 370 | 185 | 363 | 1,031 | 2 |
| Depreciation, depletion and amortization | 172 | 174 | 184 | 183 | 713 | 170 |
| Adjusted EBITDA | 448 | 447 | 374 | 320 | 1,589 | 289 |
| Special items before tax and noncontrolling interest | 19 | 8 | 14 | 26 | 67 | 32 |
| Adjusted EBITDA excl. special items | \$467 | \$455 | \$388 | \$346 | \$1,656 | \$321 |

Alcoa Corporation's definition of Adjusted EBITDA is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa Corporation's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Free Cash Flow reconciliation



| <i>\$M</i> | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 1Q20 |
|---|---------------|---------------|------------|-------------|----------------|
| Cash from (used in) operations | \$168 | \$82 | \$174 | \$262 | \$(90) |
| Capital expenditures | (69) | (89) | (87) | (134) | (91) |
| Free cash flow | 99 | (7) | 87 | 128 | (181) |
| Contributions from noncontrolling interest | 20 | 1 | 20 | 10 | - |
| Distributions to noncontrolling interest | (214) | (72) | (102) | (84) | (31) |
| Free cash flow less net distributions to noncontrolling interest | \$(95) | \$(78) | \$5 | \$54 | \$(212) |

Free Cash Flow and Free Cash Flow less net distributions to noncontrolling interest are non-GAAP financial measures. Management believes that these measures are meaningful to investors because management reviews cash flows generated from operations after taking into consideration capital expenditures and net distributions to noncontrolling interest. Capital expenditures are necessary to maintain and expand Alcoa Corporation's asset base and are expected to generate future cash flows from operations, while net distributions to noncontrolling interest are necessary to fulfill our obligations to our joint venture partners. It is important to note that Free Cash Flow and Free Cash Flow less net distributions to noncontrolling interest do not represent the residual cash flows available for discretionary expenditures since other non-discretionary expenditures, such as mandatory debt service requirements, are not deducted from the measure.

Net Debt reconciliation



| <i>\$M</i> | <u>1Q19</u> | | | <u>4Q19</u> | | | <u>1Q20</u> | | |
|---|----------------|----------------|----------------|----------------|---------------|----------------|----------------|---------------|----------------|
| | Cons. | NCI | Alcoa Prop. | Cons. | NCI | Alcoa Prop. | Cons. | NCI | Alcoa Prop. |
| Short-term borrowings | \$- | \$- | \$- | \$- | \$- | \$- | \$- | \$- | \$- |
| Long-term debt due within one year | 1 | - | 1 | 1 | - | 1 | 1 | - | 1 |
| Long-term debt, less amount due within one year | 1,802 | 34 | 1,768 | 1,799 | 31 | 1,768 | 1,801 | 31 | 1,770 |
| Total debt | 1,803 | 34 | 1,769 | 1,800 | 31 | 1,769 | 1,802 | 31 | 1,771 |
| Less: Cash and cash equivalents | 1,017 | 238 | 779 | 879 | 167 | 712 | 829 | 139 | 690 |
| Net debt | 786 | (204) | 990 | 921 | (136) | 1,057 | 973 | (108) | 1,081 |
| Plus: Net pension / OPEB liability | 2,290 | 26 | 2,264 | 2,330 | 40 | 2,290 | 2,265 | 40 | 2,225 |
| Adjusted net debt | \$3,076 | \$(178) | \$3,254 | \$3,251 | \$(96) | \$3,347 | \$3,238 | \$(68) | \$3,306 |

Net debt is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management assesses Alcoa Corporation's leverage position after considering available cash that could be used to repay outstanding debt. Adjusted net debt is also a non-GAAP financial measure. Management believes that this additional measure is meaningful to investors because it provides further insight into Alcoa Corporation's leverage position by including the Company's net pension/OPEB liability.

Days Working Capital



| <i>\$M</i> | 1Q19 | 2Q19 | 3Q19 | 4Q19 | 1Q20 |
|---|-------------|-------------|-------------|-------------|-------------|
| Receivables from customers | \$758 | \$684 | \$596 | \$546 | \$570 |
| Add: Inventories | 1,799 | 1,767 | 1,649 | 1,644 | 1,509 |
| Less: Accounts payable, trade | 1,503 | 1,523 | 1,418 | 1,484 | 1,276 |
| DWC working capital | \$1,054 | \$928 | \$827 | \$706 | \$803 |
| Sales | \$2,719 | \$2,711 | \$2,567 | \$2,436 | \$2,381 |
| Number of days in the quarter | 90 | 91 | 92 | 92 | 91 |
| Days Working Capital¹ | 35 | 31 | 30 | 27 | 31 |

1. Days Working Capital = DWC working capital divided by (Sales / number of days in the quarter).

Annualized Return on Equity (ROE)



Reconciliation and calculation information

| <i>\$M</i> | 1Q19 | 1Q20 |
|---|----------------|----------------|
| <i>Numerator:</i> | | |
| Net (loss) income attributable to Alcoa Corporation | \$(199) | \$80 |
| Add: Special items ¹ | 156 | (122) |
| ROE Adjusted Net Income YTD | \$(43) | \$(42) |
| ROE Adj. Net Income multiplied by four | \$(172) | \$(168) |
| <i>Denominator²:</i> | | |
| Total assets | \$15,956 | \$13,651 |
| Less: Total Liabilities | 8,873 | 7,840 |
| Less: Noncontrolling Interest | 1,926 | 1,536 |
| Shareholders' Equity² | \$5,157 | \$4,275 |
| ROE | -3.3% | -3.9% |

$$\text{ROE \%} = \frac{(\text{Net Loss/Income Attributable to Alcoa} + \text{Special Items})}{(\text{Total Assets} - \text{Total Liabilities} - \text{Noncontrolling Interest})^2} \times 100$$

$$\begin{aligned} \text{1Q19 ROE \%} &= \frac{(-\$199 + \$156) \times 4}{(\$15,956 - \$8,873 - \$1,926)} \times 100 = -3.3\% \\ \text{1Q20 ROE \%} &= \frac{(\$80 - \$122) \times 4}{(\$13,651 - \$7,840 - \$1,536)} \times 100 = -3.9\% \end{aligned}$$

1. Special items include provisions for interest expense, income taxes, and noncontrolling interest.
2. Denominator calculated using quarter ending balances.

Annualized Return on Capital (ROC)



Reconciliation and calculation information

| <i>\$M</i> | 1Q19 | 1Q20 |
|--|-----------------|-----------------|
| <i>Numerator:</i> | | |
| Net (loss) income attributable to Alcoa Corporation | \$(199) | \$80 |
| Add: Net income attributable to noncontrolling interest | 141 | 59 |
| Add: Provision for income taxes | 150 | 80 |
| Profit before taxes (PBT) | 92 | 219 |
| Add: Interest expense | 30 | 30 |
| Less: Interest income | 5 | 3 |
| Add: Special items ¹ | 123 | (135) |
| ROC earnings before taxes | \$240 | \$111 |
| ROC earnings before taxes multiplied by four | \$960 | \$444 |
| ROC earnings after fixed tax rate of 35% | \$624 | \$289 |
| <i>Denominator²:</i> | | |
| Total assets | \$15,956 | \$13,651 |
| Less: Cash, cash equivalents, restricted cash and short-term investments | 1,022 | 832 |
| Less: Current liabilities | 2,803 | 2,223 |
| Add: Long-term debt due within one year and short-term borrowings | 1 | 1 |
| Capital Base² | \$12,132 | \$10,597 |
| ROC | 5.1% | 2.7% |

$$\text{ROC \%} = \frac{(\text{PBT} + \text{net interest}^3 + \text{special items}^1) \times 4 \times (1 - \text{fixed tax rate}^4)}{(\text{Total assets} - \text{cash}^5 - \text{current liabilities} + \text{short-term debt})} \times 100$$

$$\text{1Q19 ROC \%} = \frac{((\$92 + \$25 + \$123) \times 4) \times (1 - 0.35)}{(\$15,956 - \$1,022 - \$2,803 + \$1)} \times 100 = 5.1\%$$

$$\text{1Q20 ROC \%} = \frac{((\$219 + \$27 - \$135) \times 4) \times (1 - 0.35)}{(\$13,651 - \$832 - \$2,223 + \$1)} \times 100 = 2.7\%$$

1. Special items exclude interest expense, income taxes, and noncontrolling interest.
2. Denominator calculated using quarter ending balances.
3. Interest expense less interest income.
4. Fixed tax rate of 35%.
5. Defined as cash, cash equivalents, restricted cash and short-term investments.

Glossary of terms



Abbreviations listed in alphanumeric order

| Abbreviation | Description |
|-------------------|--|
| % pts | Percentage points |
| 1H## | Six months ending June 30 |
| 1Q## | Three months ending March 31 |
| 2H## | Six months ending December 31 |
| 2Q## | Three months ending June 30 |
| 3Q## | Three months ending September 30 |
| 4Q## | Three months ending December 31 |
| Adj. | Adjusted |
| API | Alumina Price Index |
| ARO | Asset retirement obligations |
| AUD | Australian dollar |
| AWAC | Alcoa World Alumina and Chemicals |
| B | Billion |
| BRL | Brazilian real |
| CAD | Canadian dollar |
| CIF | Cost, insurance and freight |
| CO ₂ e | Carbon dioxide equivalent |
| COGS | Cost of goods sold |
| Cons. | Consolidated |
| DoC | Days of consumption |
| dmt | Dry metric ton |
| DWC | Days working capital |
| EBITDA | Earnings before interest, taxes, depreciation and amortization |
| Elims. | Eliminations |
| EPS | Earnings per share |
| ERISA | Employee Retirement Income Security Act of 1974 |
| EUR | Euro |
| Est. | Estimated |
| excl. or ex. | Excluding |

| Abbreviation | Description |
|--------------|--|
| FY## | Twelve months ending December 31 |
| GAAP | Accounting principles generally accepted in the United States of America |
| GWh | Gigawatt hour |
| ISK | Icelandic krona |
| JV | Joint venture |
| kmt | Thousand metric tons |
| LME | London Metal Exchange |
| LTM | Last twelve months |
| M | Million |
| Mdmt | Million dry metric tons |
| Mmt | Million metric tons |
| Mt | Metric ton |
| N/A | Not applicable |
| NCI | Noncontrolling interest |
| NI | Net income |
| NOK | Norwegian krone |
| OPEB | Other postretirement employee benefits |
| PBT | Profit before taxes |
| Prop. | Proportional |
| R&D | Research and development |
| ROC | Return on capital |
| ROW | Rest of world |
| SEC | Securities and Exchange Commission |
| SG&A | Selling, general administrative and other |
| TBD | To be determined |
| U.S. | United States of America |
| USD | United States dollar |
| USW | United Steelworkers |
| YTD | Year to date |