The Element of **Possibility**™

Alcoa Corporation

Investor Presentation

December 2020



Important information

Cautionary statement regarding forward-looking statements

This presentation 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 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, 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 and 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; 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, Form 10-Q for the quarter ended March 31, 2020, Form 10-Q for the quarter ended June 30, 2020, Form 10-Q for the quarter ended September 30, 2020, 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.

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Important information (continued)

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.

Resources

This presentation can be found under the "Events and Presentations" tab of the "Investors" section of the Company's website, www.alcoa.com.

Alcoa: A global values-driven enterprise

Global operations by business segment



OUR VALUES

Act with Integrity

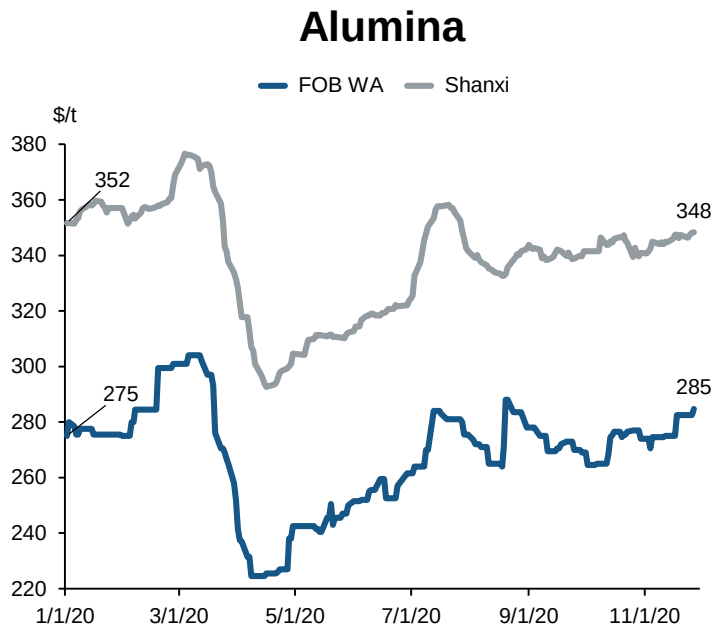
Operate with Excellence

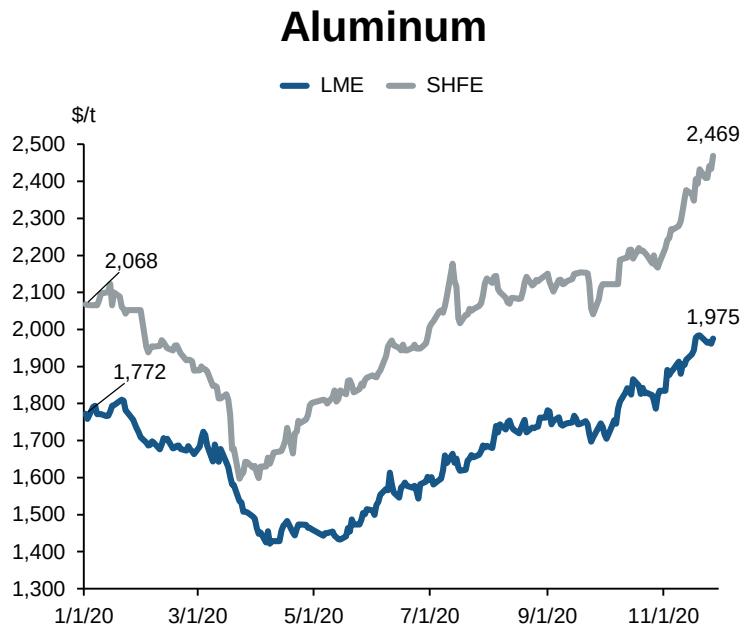
Care for People



Market prices driving higher from April lows

2020 alumina and aluminum market prices





Sources: Alcoa analysis, Baiinfo, Aladdiny, Antaike, LME, SHFE, Platts. Note: Prices are updated to Nov 27, 2020. Chinese prices are VAT included.

Business responding well throughout pandemic

COVID-19 and segment operational update

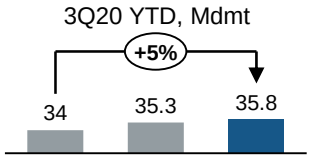
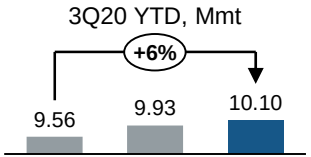
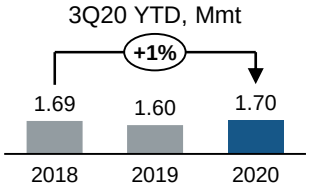
COVID-19

All facilities remain in operation at pre-COVID-19 production levels, excluding curtailment changes

- Enhanced cleaning, hygiene, physical distancing protocols, work from home, and business travel restrictions remain in place
- Operating locations in Brazil have seen most cumulative cases to date
- Closely monitoring and adapting to recurrent outbreaks in Europe, U.S. and Canadian regions
- Where warranted, locations are augmenting local COVID-19 testing resources

Aligned with public health orders and guidance to support those with COVID-19 and minimize the risk of exposure to others

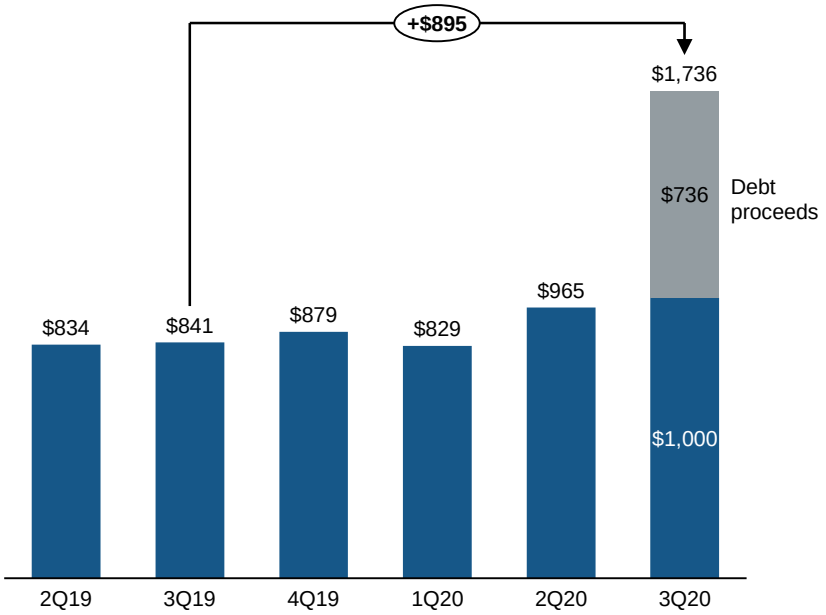
Segment operational and commercial performance

	Production	Operations	Commercial
Bauxite		▪ All mines in full operation ▪ Record production 3Q20 YTD for Alcoa operated mines, led by Huntly and Willowdale	▪ Third party volume expected to grow in 4Q20 vs. 3Q20 ▪ Minimal price impact to Alcoa; market expected to moderate on strong Guinea volume
Alumina		▪ Increased plant stability reflected in cost improvement and production gains ▪ Record Alumina segment quarterly production in 3Q20	▪ Smelter grade alumina shipments expected to remain stable ▪ Pricing has recovered after declining earlier in the year
Aluminum		▪ Bécancour restart complete; Intalco fully curtailed ▪ On October 8, decision made to curtail San Ciprián smelter and initiate collective dismissal process	▪ Expect stronger value add product volume in 4Q20 ▪ Expect Canadian exemption on U.S. import tariff to remain in place for 4Q20

Cash flows, debt issuance provide significant flexibility

Quarterly cash comparison and liquidity considerations

Quarter ending cash balance, $M



Liquidity and uses of cash

Maintaining the tenets of our capital allocation framework including the mid-term proportional net debt target

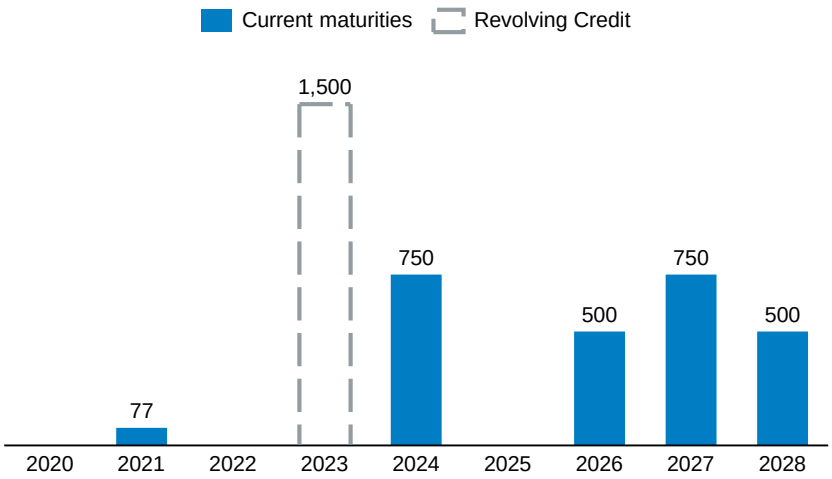
Cash position provides increased liquidity and flexibility in the short term:

- Options to make capital structure moves, including reducing nearer term debt maturities or pension de-risking actions if they generate stockholder value
- Strategic actions ongoing in 2020 and expected in 2021 include non-core asset sales and portfolio review actions; potentially sources, and uses, of cash
- Signs of solid recovery in China, modest recovery in world ex-China, but overall pace of continued economic recovery uncertain

Excellent liquidity and no significant near term maturities

Maturity schedule and debt profile

Maturity schedule ($M)



Cash and debt profile

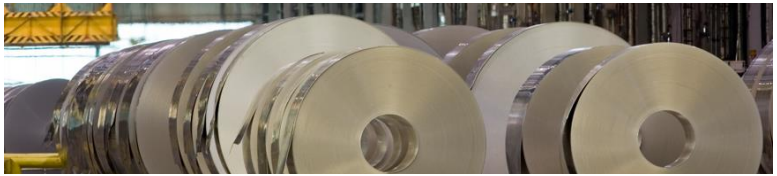
- Cash on balance sheet $1.7 billion, as of September 2020
- Four bonds outstanding with coupons ranging from 5.5% to 7.0%, and maturities ranging from 2024 to 2028
- On July 13, issued $750 million aggregate principal amount of 5.5% senior notes due 2027
- Undrawn $1.5 billion revolver, matures 2023
- Credit ratings of Ba1 (Moody's), BB+ (S&P), BB+ (Fitch)

Warrick rolling mill sale for $670M to Kaiser Aluminum

Warrick rolling mill sale and non-core asset sale update

Warrick rolling mill sale to Kaiser Aluminum

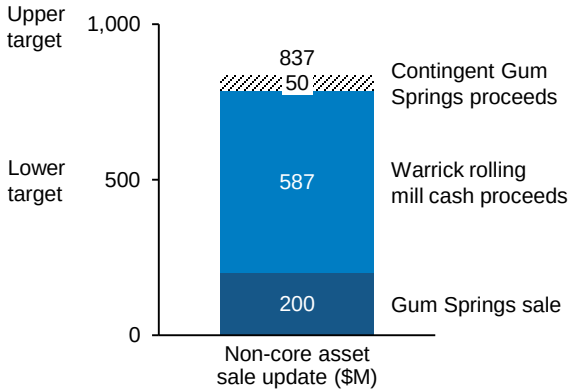
- Total consideration of ~$670 million, $587 million in cash and the assumption of $83 million in OPEB liabilities
- Sale expected to close by March 31, 2021
- Alcoa will continue to operate the aluminum smelter and power plant, providing services to the rolling mill with a market-based metal agreement
- For Alcoa, on annual basis, expect decreases in sales of ~$800 million, net income (pre- and after-tax) of $45 to $55 million, and Adjusted EBITDA of $90 to $100 million
- Alcoa expects to spend approximately $100 million for site separation and transaction costs, with approximately half being spent in 2021 and the remainder in 2022 and 2023



Non-core asset sale update

In October 2019, announced plan to generate between $500 million and $1 billion from non-core asset sales within 12 to 18 months

- Sale of Gum Springs waste treatment business in first quarter of 2020 received an initial $200 million in cash
- Warrick rolling mill sale places us in top half of target range



Continuously strengthening the Company to drive value

3Q20 program update and achievements

Current programs

Key strategic actions	New operating model	Portfolio review	Non-core asset sales
2020 Programs	Leaner working capital	Productivity improvement	
COVID-19 response	Pension deferral	Capex reduction	Other spending cuts

3Q20 update

- 3Q20 SG&A down $19 million YoY
- Intalco curtailed, Bécancour restart complete
- On October 8, decision made to curtail San Ciprián smelter
- 2020 programs on pace or above target
- COVID-19 response actions at target
- $750 million debt issued at 5.5% due 2027

Achievements (2017-2020)

- Revitalized safety program
- Finalized Point Comfort, Rockdale, and Suriname closures; divested Avilés, La Coruña, and Portovesme facilities, as well as minority interest in Saudi rolling mill
- Renegotiated revolving credit; prefunded pension with $500 million debt issue; annuitized pensions in Canada and U.S.
- Made first non-core asset sale: Gum Springs treatment facility
- Set numerous location and segment production records; restarted Bécancour, Lake Charles, Portland, and Warrick facilities
- Modernized labor contracts in Canada, U.S. and Australia; froze salaried pension plan as of January 1, 2021, enacted OPEB liability management actions
- Launched ELYSIS™ joint venture, joined International Council on Mining and Metals, achieved ASI certifications across value chain
- Expanded sales of Sustana™ low carbon products

Sustainability leadership expected to drive value at Alcoa

Sustainability business case and key value drivers

Preserve license to operate and grow our assets

Targeted impacts

- Maintain current license to operate in sensitive areas, e.g., Amazon and Jarrah forest
- Renew and expand mine permits/leases, other facility operating permits
- Receive approval for greenfield and brownfield expansions

Drivers for success

- Biodiversity and water conservation
- Indigenous Peoples program
- Social management system

Reduce risk exposure and improve balance sheet

Targeted impacts

- Optimize financial impacts of carbon pricing mechanisms
- Minimize future cost of mine rehabilitation, remediation of residue impoundments
- Reduce risk related to water scarcity
- Reduce operating costs through efficiency improvements

Drivers for success

- Mine rehabilitation programs
- Waste management planning
- Human rights policy and council

Enhance product value through differentiation

Targeted impacts

- Position product segments to benefit from sustainability trends
- Capture and maintain preferred customers through market cycles
- Sell sustainable products at premium prices and margins

Drivers for success

- ASI certification, ICMM protocols
- Sustana™ products, including EcoSource™, EcoLum™, EcoDura™
- ELYSIS™ carbon-free smelting technology

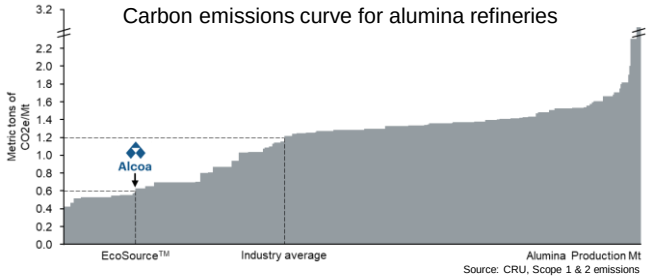
Alcoa expanding world-leading green products portfolio

Sustana™ products update

New low carbon alumina product

Sustana EcoSource™
Smelter-Grade Alumina

- Less than 0.6 CO_2e emissions (scope 1 and 2) from bauxite and alumina
- Lowest CO_2e intensity product and refinery portfolio in the industry
- Available from all Alcoa smelter grade alumina refineries



Existing low carbon aluminum products

Sustana EcoLum™
Low-Carbon Primary Aluminum

- Less than 4.0 CO_2e emissions (scope 1 and 2) from bauxite, alumina, smelting and casting
- Available globally in all cast shapes

Sustana EcoDura™
Aluminum with Recycled Content

- Minimum 50% recycled content
- Available globally

ASI certifications available for all products
11 sites currently ASI certified, additional locations in certification process

Sustana an Alcoa product

Operating well through pandemic; positioning for future

Key takeaways



- **Act with integrity**
  Improving the company in a transparent and respectful manner
- **Operate with excellence**
  Implementing our strategy and improving operationally and financially; well positioned for the future
- **Care for people**
  Protecting our people, communities, and environments in which we operate

Drive results and **deliver returns** to stockholders over the long term

Appendix I:
Warrick Rolling Mill Divestiture Reconciliation



Adjusted EBITDA reconciliation (Warrick Rolling Mill)

Reconciliation of Net income to Adjusted EBITDA (unaudited) (in millions)

Net income attributable to Alcoa Corporation	$45 - $55
Provision for depreciation, depletion, and amortization	25
Other expenses, net	20
Adjusted EBITDA	$90 - $100

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.

Appendix II:
3Q20 Financial Results and Other Information as presented on October 14, 2020



Delivering performance and improvements amid pandemic

3Q20 Financial results and business review

3Q20 Financial results	▪ Net loss of $49 million, or $0.26 per share; excluding special items, adjusted net loss of $218 million, or $1.17 per share ▪ Adjusted EBITDA excluding special items of $284 million ▪ Cash balance at $1,736 million on September 30, including debt issuance of $750 million on July 13
Business review	▪ No serious injuries in quarter; COVID-19 protocols remain in place ▪ Production records set year to date in Bauxite and quarterly in Alumina ▪ Market recovering from 1H20 lows, improvement more rapid in China ▪ Bécancour restart complete and Intalco fully curtailed ▪ EcoSource™ low carbon smelter grade alumina brand announced ▪ On October 8, decision made to curtail San Ciprián smelter

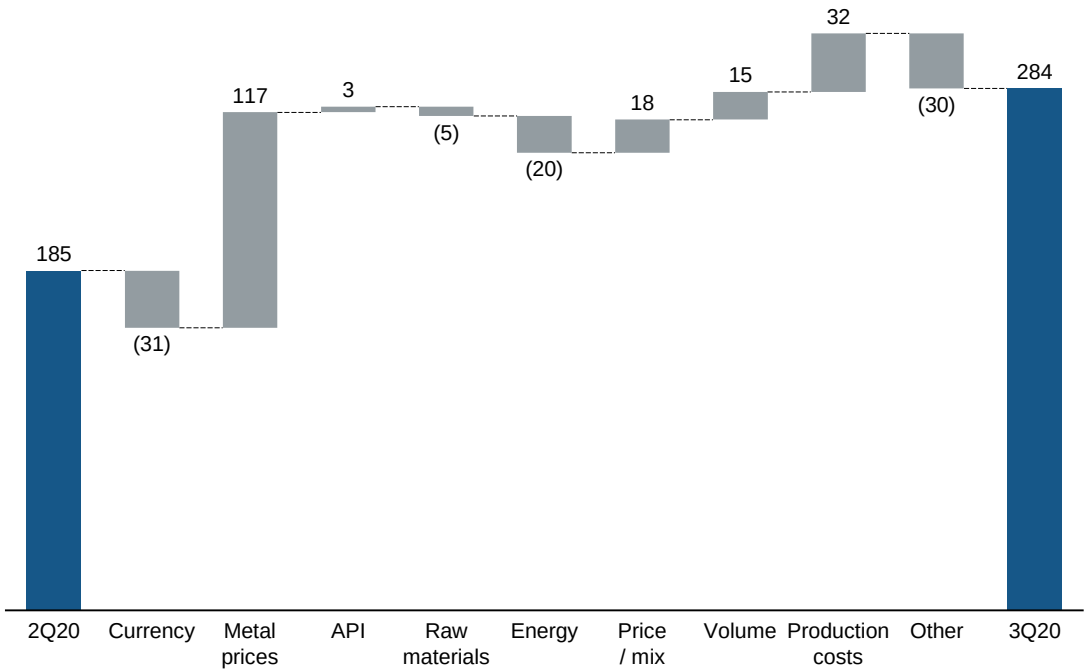
Revenues up 10%, Adjusted EBITDA ex. specials up 54%

Quarterly income statement highlights

M, Except per share amounts	3Q19	2Q20	3Q20	Prior year change	Sequential change
Income statement highlights					
Revenue	$2,567	$2,148	**$2,365**	$(202)	$217
Restructuring and other charges, net	$185	$37	**$5**	$(180)	$(32)
Provision for income taxes	$95	$45	**$42**	$(53)	$(3)
Net loss attributable to Alcoa Corporation	$(221)	$(197)	**$(49)**	$172	$148
Diluted loss per share	$(1.19)	$(1.06)	**$(0.26)**	$0.93	$0.80
Adjusted income statement highlights					
Adjusted EBITDA excluding special items	$388	$185	**$284**	$(104)	$99
Provision for income taxes	$139	$(96)	**$229**	$90	$325
Operational tax rate	99.5%	178.3%	**540.6%**	441.1% pts.	362.3% pts.
Adjusted net loss attributable to Alcoa Corporation	$(82)	$(4)	**$(218)**	$(136)	$(214)
Adjusted diluted loss per share	$(0.44)	$(0.02)	**$(1.17)**	$(0.73)	$(1.15)

Higher metal prices and better performance drive results

Adjusted EBITDA excluding special items sequential changes, $M

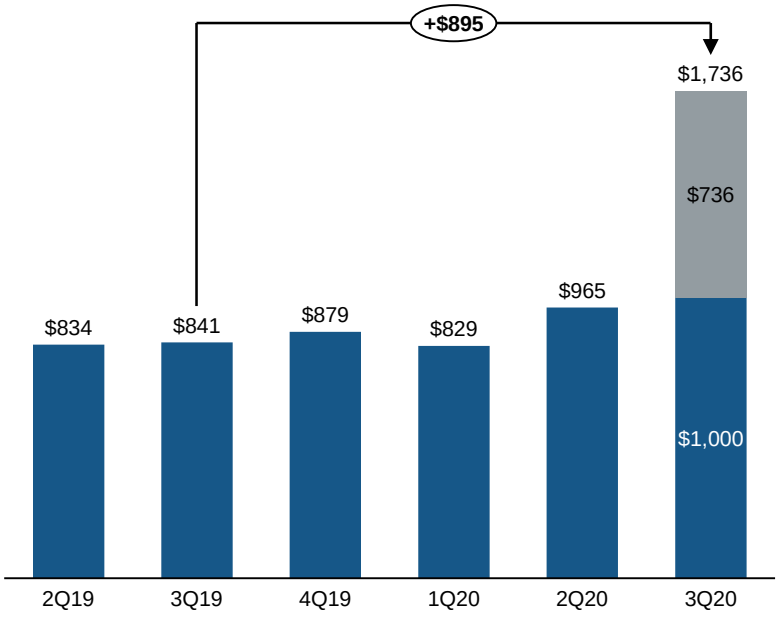


	2Q20	3Q20	Change
Bauxite	$131	$124	$(7)
Alumina	88	119	31
Aluminum	(34)	116	150
Segment total	185	359	174
Transformation	(10)	(11)	(1)
Intersegment eliminations	30	(35)	(65)
Other corporate	(20)	(29)	(9)
Total	$185	$284	$99

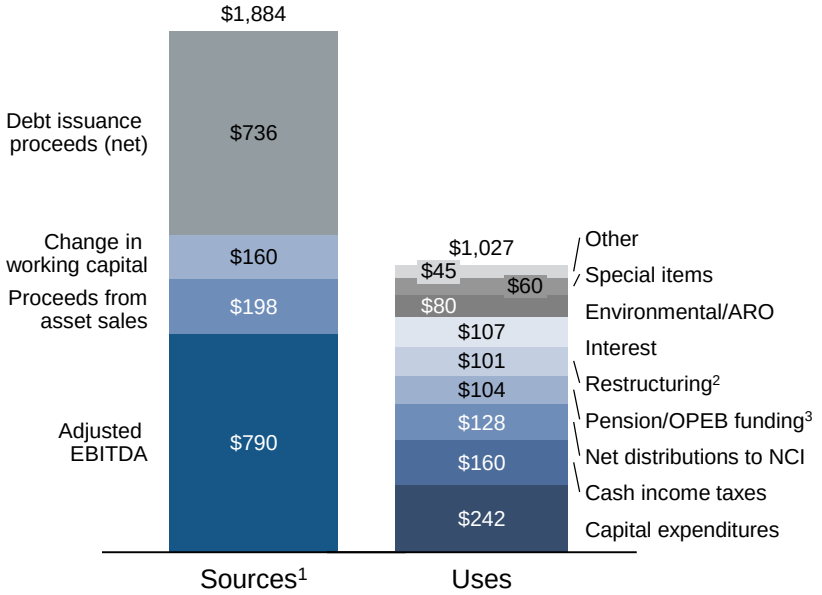
Cash balance up $159 million YoY excluding debt issuance

Quarterly cash comparison and cash flow information

Quarter ending cash balance, $M



YTD Cash flow information, $M



1. Sources defined as Adjusted EBITDA excluding special items plus changes in working capital (accounts receivable, inventories, accounts payable), proceeds from asset sales and debt issuance.
2. Restructuring includes payments related to divestiture of the Avilés and La Coruña facilities and severance related to various programs.
3. Minimum required pension/all OPEB funding is reflected net of related expenses within Adjusted EBITDA.

Strong working capital management and cash position

Key financial metrics and pension/OPEB update

Key financial metrics

3Q20 Days working capital	2020 Return on equity
22 Days	**(9.3)%**

2020 YTD Capital expenditures	Proportional adjusted net debt
$242M	**$3.3B**

2020 YTD Free cash flow less net NCI distributions	3Q20 Cash balance
$(14)M	**$1.7B**

Pension/OPEB update

Balance sheet impacts (remeasured at year end)

- Preliminary asset returns of 3.4% through September 30
- Discount rate for pension and OPEB liabilities down 30 to 35 basis points from last plan remeasurement to September 30
- Remeasurement impacts to date of ($0.3) billion

FY20 funding requirements (current estimates)

- OPEB cash requirements ~$100 million
- Pension funding of ~$90 million, net of CARES Act

U.S. pension pre-funding balance of ~$380 million available for future funding requirements in FY21+

On target to achieve cash actions totaling ~$900 million

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

Cash actions					Year to date
	Run rate	One time	Deferral	FY20	Comments
Key strategic actions					
New operating model	60			**45**	Savings at full run rate
Non-core asset sales		200		**200**	Sale program continuing
Portfolio review	35-100	(25)		**10-75**	Intalco fully curtailed
2020 programs					
Leaner working capital		75-100		**75-100**	DWC working capital remains ahead of target
Lower production costs	100			**100**	Projecting 75-100% attainment
COVID-19 response					
Reduce capital expenditures		100		**100**	Spending favorable to targeted rate
Defer environmental/ARO			25	**25**	Spending favorable to targeted rate
Defer pension funding to 2021			220	**220**	Underway; current estimate ~200
Hiring, travel, other restrictions		20	15	**35**	Spending at targeted rate
Total	**~225**	**~400**	**~260**	**~900**	

2020 Outlook

FY20 Key metrics

Income statement excl. special items impacts

	2020 YTD Actual	FY20 Outlook
Bauxite shipments (Mdmt)	36.4	48.0 – 49.0
Alumina shipments (Mmt)	10.5	13.8 – 13.9
Aluminum shipments (Mmt)[1]	2.3	2.9 – 3.0
Transformation (adj. EBITDA impacts)	$(37)M	~ $(55)M
Intersegment elims. (adj. EBITDA impacts)	$(13)M	Varies
Other corporate (adj. EBITDA impacts)	$(79)M	~ $(100)M
Depreciation, depletion and amortization	$483M	~ $655M
Non-operating pension/OPEB expense	$80M	~ $100M
Interest expense	$103M	~ $150M
Operational tax rate[2]	273%	Varies
Net income of noncontrolling interest	$137M	40% of AWAC NI

Cash flow impacts

	2020 YTD Actual	FY20 Outlook
Minimum required pension/all OPEB funding	$149M	~ $190M
Additional pension funding	$4M	Will vary based on market conditions and cash availability
Discretionary debt repayment	$0M	
Stock repurchases	$0M	
Return-seeking capital expenditures[3]	$34M	~ $35M
Sustaining capital expenditures[3]	$208M	~ $340M
Payment of prior year income taxes[4]	$48M	~ $50M
Current period cash taxes[2]	$112M	Varies
Environmental and ARO payments[5]	$80M	~ $115M
Impact of restructuring and other charges	$101M	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.

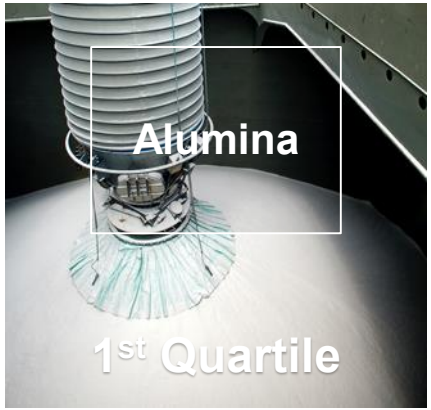
1. Intalco curtailment reflected in outlook.
2. Estimate will vary with market conditions and jurisdictional profitability.
3. AWAC portion of FY20 Outlook: ~30% of return-seeking capital expenditures, and ~60% of sustaining capital expenditures.
4. Net of pending tax refunds.
5. As of September 30, 2020, the environmental remediation reserve balance was $321M and the ARO liability was $664M.

Superior bauxite and alumina assets, solid smelter portfolio

2020 Cost curve and business position



- World's second largest bauxite miner, with a first quartile cost position
- Long-lived assets with low-cost growth opportunities



- Largest alumina refiner and largest long position, outside of China
- Low cost, global network of refineries with a first quartile cost position and lowest carbon intensity



- Top 10 global aluminum smelter with proximity to major markets
- ~75% powered by renewable resources; offering multiple low carbon intensity products

Source: CRU and Alcoa analysis

Strengthening the Company, 2017-2019

Key actions

2017 – 2018

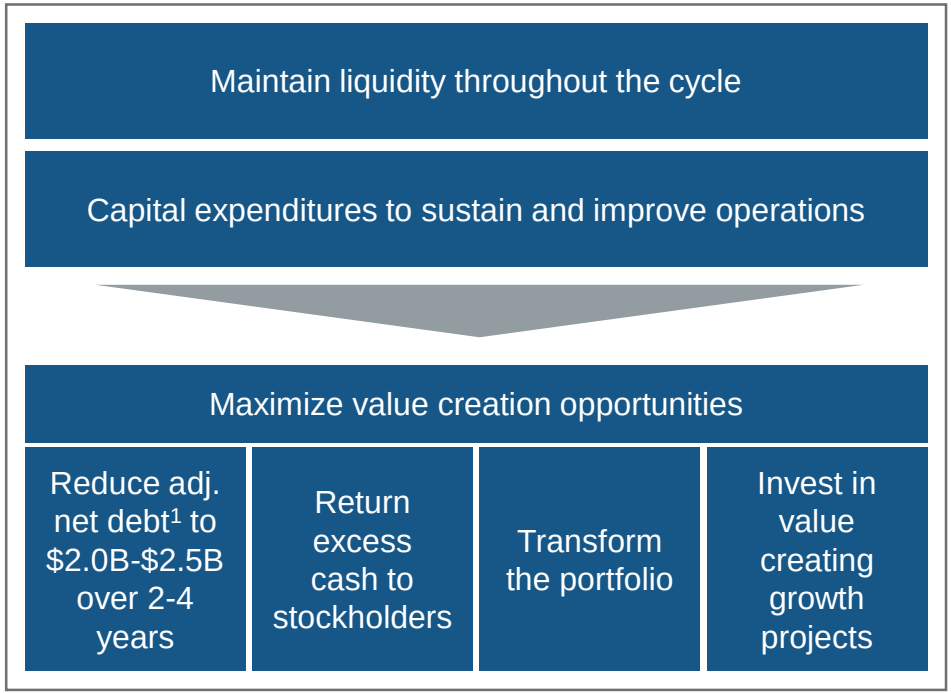
- Revitalized safety program; zero fatalities in 2018
- Restarted Portland smelter and Lake Charles calciner
- Streamlined business units to three, reduced administrative locations, relocated headquarters to Pittsburgh
- Set annual production records
- Terminated Rockdale power contract, closed site
- 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

Capital allocation framework and considerations



- $1 billion target for minimum cash balance
- Sustaining capital expenditures of ~$340 million, return seeking capital of ~$35 million, per 2020 outlook

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- 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

Quarterly income statement

Quarterly income statement

M, Except realized prices and per share amounts	3Q19	2Q20	3Q20	Prior Year Change	Sequential Change
Realized primary aluminum price ($/mt)	$2,138	$1,694	**$1,904**	$(234)	$210
Realized alumina price ($/mt)	$324	$250	**$274**	$(50)	$24
Revenue	$2,567	$2,148	**$2,365**	$(202)	$217
Cost of goods sold	2,120	1,932	**2,038**	(82)	106
SG&A and R&D expenses	73	49	**53**	(20)	4
Adjusted EBITDA	374	167	**274**	(100)	107
Depreciation, depletion and amortization	184	152	**161**	(23)	9
Other expenses, net	27	51	**45**	18	(6)
Interest expense	30	32	**41**	11	9
Restructuring and other charges, net	185	37	**5**	(180)	(32)
Provision for income taxes	95	45	**42**	(53)	(3)
Net loss	(147)	(150)	**(20)**	127	130
Less: Net income attributable to noncontrolling interest	74	47	**29**	(45)	(18)
Net loss attributable to Alcoa Corporation	$(221)	$(197)	**$(49)**	$172	$148
Diluted loss per share	$(1.19)	$(1.06)	**$(0.26)**	$0.93	$0.80
Diluted average shares[1]	185.6	185.9	**185.9**	0.3	0.0

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.

Special items

Breakdown of special items by income statement classification – gross basis

M, Except per share amounts	3Q19	2Q20	3Q20	Description of significant 3Q20 special items
Net loss attributable to Alcoa Corporation	$(221)	$(197)	**$(49)**	
Diluted loss per share	$(1.19)	($1.06)	**($0.26)**	
Special items	$139	$193	**$(169)**	
Cost of goods sold	*14*	*17*	***7***	Bécancour restart costs
SG&A and R&D expenses	*-*	*1*	***3***	
Restructuring and other charges, net	*185*	*37*	***5***	Pension/OPEB related actions
Other (income) expenses, net	*(7)*	*(3)*	***4***	
Provision for income taxes	*(44)*	*141*	***(187)***	Interim tax impacts
Noncontrolling interest	*(9)*	*-*	***(1)***	
Adjusted net loss attributable to Alcoa Corporation	$(82)	$(4)	**$(218)**	
Adjusted diluted loss per share	$(0.44)	$(0.02)	**$(1.17)**	

Quarterly income statement excluding special items

Quarterly income statement excluding special items

M, Except realized prices and per share amounts	3Q19	2Q20	3Q20	Prior Year Change	Sequential Change
Realized primary aluminum price ($/mt)	$2,138	$1,694	**$1,904**	$(234)	$210
Realized alumina price ($/mt)	$324	$250	**$274**	$(50)	$24
Revenue	$2,567	$2,148	**$2,365**	$(202)	$217
Cost of goods sold	2,106	1,915	**2,031**	(75)	116
COGS % of Revenue	82.0%	89.2%	**85.9%**	3.9% pts.	(3.3)% pts.
SG&A and R&D expenses	73	48	**50**	(23)	2
SG&A and R&D % of Revenue	2.8%	2.2%	**2.1%**	(0.7)% pts.	(0.1)% pts.
Adjusted EBITDA	388	185	**284**	(104)	99
Depreciation, depletion and amortization	184	152	**161**	(23)	9
Other expenses, net	34	54	**41**	7	(13)
Interest expense	30	32	**41**	11	9
Provision for income taxes	139	(96)	**229**	$90	$325
Operational tax rate	99.5%	178.3%	**540.6%**	441.1% pts.	362.3% pts.
Adjusted net income (loss)	1	43	**(188)**	(189)	(231)
Less: Adjusted net income attributable to noncontrolling interest	83	47	**30**	(53)	(17)
Adjusted net loss attributable to Alcoa Corporation	$(82)	$(4)	**$(218)**	$(136)	$(214)
Adjusted diluted loss per share	$(0.44)	$(0.02)	**$(1.17)**	$(0.73)	$(1.15)
Diluted average shares[1]	185.6	185.9	**185.9**	0.3	0.0

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.

3Q20 Financial summary

Three months ending September 30, 2020, excluding special items

$M	Bauxite	Alumina	Aluminum[3,4]	Transformation	Intersegment eliminations	Other corporate	Alcoa Corporation
Total revenue	$292	$1,026	$1,609	$5	$(567)	-	$2,365
Third-party revenue	$56	$697	$1,607	$5	-	-	$2,365
Adjusted EBITDA[1]	$124	119	$116	$(11)	$(35)	$(29)	$284
Adjusted EBITDA margin %	*42.5%*	*11.6%*	*7.2%*				*12.0%*
Depreciation, depletion and amortization	$33	$41	$80	-	-	$7	$161
Other expenses, net[2]	-	$4	$6	-	-	$31	$41
Interest expense							$41
Provision for income taxes							$229
Adjusted net loss							$(188)
Net income attributable to noncontrolling interest							$30
Adjusted net loss attributable to Alcoa Corp.							$(218)

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 0.08 Mmt, $294M and $29M, respectively.
4. Third-party energy sales volume, revenue and adjusted EBITDA in Brazil were 954 GWh, $15M and $5M, respectively.

3Q20 Adjusted EBITDA drivers by segment

Adjusted EBITDA excluding special items sequential changes by segment, $M

Segment	Adj. EBITDA 2Q20	Currency	Metal prices	API	Raw materials	Energy	Price/mix	Volume	Production costs	Other	Adj. EBITDA 3Q20
Bauxite	$131	(4)	0	0	0	(0)	(1)	(2)	5	(5)	$124
Alumina	$88	(15)	0	44	(7)	(31)	10	11	21	(2)	$119
Aluminum	$(34)	(12)	123	10	2	11	9	6	6	(5)	$116
Segment Total	**$185**	**(31)**	**123**	**54**	**(5)**	**(20)**	**18**	**15**	**32**	**(12)**	**$359**

Aluminum value chain

2020 YTD Alcoa product shipments by segment



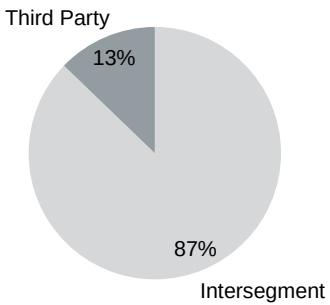
36.4 Mdmt shipments

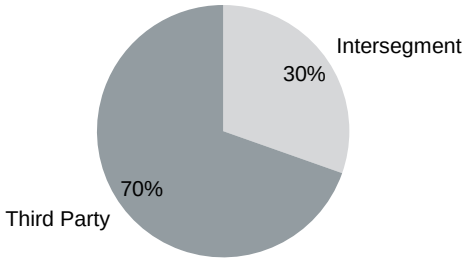


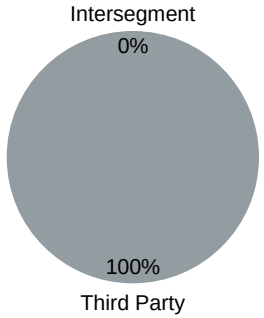
10.5 Mmt shipments



2.3 Mmt shipments



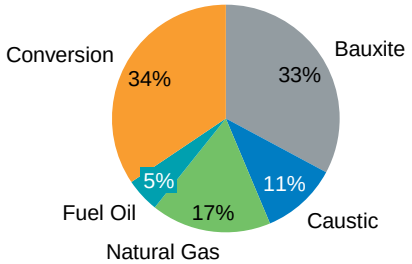




Composition of alumina and aluminum production costs

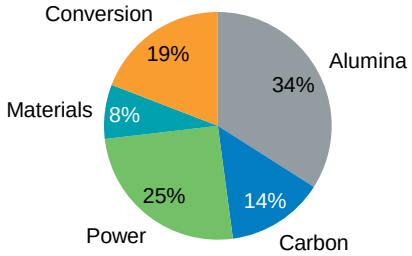
Alcoa 3Q20 production cash costs

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 month	Quarterly, 85% with CPI adjustment	$11M per $0.10/GJ
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

2020 Business information

Estimated annual Adjusted EBITDA sensitivities

$M Segment	LME + $100/mt	API + $10/mt	Midwest + $100/mt	Europe + $100/mt	Japan + $100/mt	AUD + 0.01 0.71[1]	BRL + 0.10 5.38[1]	CAD + 0.01 1.33[1]	EUR + 0.01 1.17[1]	ISK + 10 137.70[1]	NOK + 0.10 9.14[1]
Bauxite						(4)	3				
Alumina		119				(18)	8		(1)		
Aluminum	196	(42)	119	86	27	0	(2)	2	(3)	11	2
Total	196	77	119	86	27	(22)	9	2	(4)	11	2

Pricing conventions

Segment	Third party revenue
Bauxite	• Negotiated prices
Alumina	• ~95% of third party smelter grade alumina priced on API/spot • API based on prior month average of spot prices
Aluminum	• 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 3Q20 exchange rates

Currency impacts on Adjusted EBITDA

Currency balance sheet revaluation and EBITDA sensitivities ($M, except currencies)

Balance sheet revaluation impact

	AUD	BRL	CAD	EUR	ISK	NOK	Total
9/30/19 currencies	0.68	4.16	1.33	1.09	124.11	9.08	
12/31/19 currencies	0.70	4.05	1.31	1.12	121.38	8.82	
4Q19 revaluation	(4.9)	(1.8)	(0.9)	1.2	0.4	1.5	(4.5)
3/31/20 currencies	0.61	5.16	1.42	1.11	139.54	10.57	
1Q20 revaluation	20.9	10.0	4.4	0.4	3.1	(1.6)	37.2
1Q20 sequential impact	25.8	11.9	5.3	(0.7)	2.7	(3.2)	41.8
6/30/20 currencies	0.69	5.44	1.37	1.13	137.77	9.68	
2Q20 revaluation	(20.1)	1.8	(1.6)	(0.5)	0.6	(1.0)	(20.8)
2Q20 sequential impact	(40.9)	(8.2)	(6.0)	(1.0)	(2.5)	0.7	(58.0)
9/30/20 currencies	**0.71**	**5.65**	**1.34**	**1.17**	**138.66**	**9.47**	
3Q20 revaluation	(4.7)	3.6	(0.8)	(1.1)	1.4	0.0	(1.7)
3Q20 revaluation sequential impact	**15.4**	**1.8**	**0.8**	**(0.6)**	**0.8**	**1.0**	**19.1**

Currency annual sensitivity and actual impact

	+0.01 AUD	+0.10 BRL	+0.01 CAD	+0.01 EUR	+ 10 ISK	+0.10 NOK	Total
EBITDA sensitivity	(22)	9	2	(4)	11	2	
4Q19 currency avg.	0.68	4.12	1.32	1.11	123.54	9.12	
1Q20 currency avg.	0.66	4.44	1.34	1.10	127.78	9.44	
1Q20 currency impact	12.6	7.0	1.1	0.4	1.2	1.3	23.6
2Q20 currency avg.	0.66	5.38	1.39	1.10	141.37	10.04	
2Q20 currency impact	1.8	21.0	2.7	0.3	3.7	2.4	31.9
3Q20 currency avg.	**0.71**	**5.38**	**1.33**	**1.17**	**137.70**	**9.14**	
3Q20 currency impact	**(32.6)**	**(0.1)**	**(3.7)**	**(8.1)**	**(1.2)**	**(3.9)**	**(49.6)**
Total 3Q20 EBITDA currency impact[1]	**(17.2)**	**1.6**	**(2.9)**	**(8.7)**	**(0.4)**	**(2.9)**	**(30.5)**

Totals may not tie due to rounding

1. Total EBITDA currency impact includes balance sheet revaluation (based on September end values) and currency impacts (based on quarterly averages)

Additional business considerations

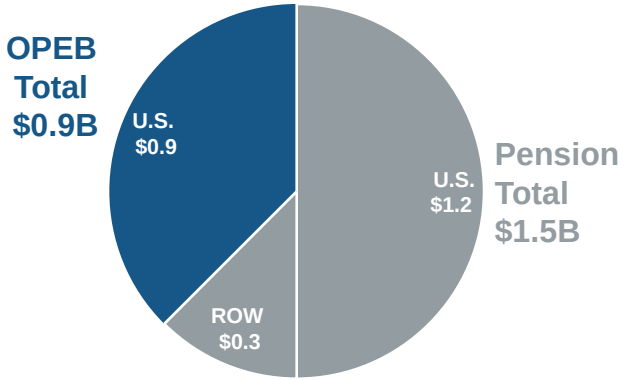
Items expected to impact Adjusted EBITDA for 4Q20

- In the Bauxite segment, Adjusted EBITDA is expected to be flat, primarily due to bauxite trading purchase price
- In the Alumina segment, expecting ~$10 million lower due to energy costs and the mix of customer shipments
- In the Aluminum segment:
  - Alumina costs are estimated to be flat sequentially
  - Other items (excluding metal prices and currency) expected to decline ~$50 million sequentially, including anticipated higher power costs in Europe, a full quarter of Section 232 tariffs, and higher maintenance and seasonal labor costs, partially offset by the positive impact of Intalco curtailment for a full quarter
- Due to volatility in quarter end exchange rates, 3Q20 adjusted EBITDA included an unfavorable balance sheet revaluation impact of $2 million and $19 million sequential benefit compared to 2Q20; currency changes related to balance sheet revaluation are not incorporated into the currency sensitivities provided for EBITDA
- Estimate intersegment 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 Company expects fourth quarter 2020 operational tax expense to be significantly lower than 3Q and approximate $25 million based on recent pricing; a significant catchup expense was recorded in 3Q, because Alcoa's operational tax rate is based on estimated full year profitability

Pension and OPEB summary

Net pension and OPEB liability and financial impacts

Net liability as of September 30, 2020[1]



Pension funding status as of December 31, 2019

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

U.S. pension contributions currently not tax deductible

Estimated financial impacts, $M

Expense impact	2020
Segment pension	$50
Segment OPEB	5
Corporate pension & OPEB	5
Total adj. EBITDA impact	**60**
Non-operating	110
Special items[2] (curtailment/settlement)	7
Total expense impact	**$177**

Cash flow impact	2020
Minimum required pension funding[3]	$90
OPEB payments	100
Total cash impact	**$190**

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. U.S. hourly pension and retiree life plans remeasured as of April 30, 2020 due to the Intalco curtailment. Australian pension plan remeasured as of September 30, 2020 due to lump sum settlements. U.S. hourly medical plan remeasured August 31, 2020 for plan change.
3. U.S. pension cash funding requirements are based on smoothed asset performance and 25-year average segment rates mandated by the IRS. The COVID-19 stimulus allows 2020 pension funding of approximately $200 million to be deferred to January 1, 2021.

Investments summary

Investments listing and income statement location

Investee	Country	Nature of Investment[4]	Ownership Interest	Carrying Value as of September 30, 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™				***$557M***	***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				***$477M***	***COGS***
Total investments				**$1,034M**	

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

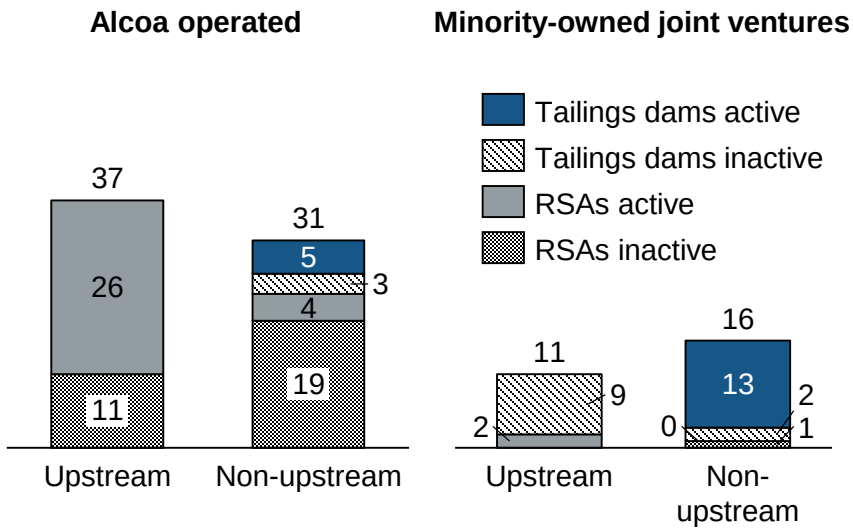
Tailings and residue impoundments management process and inventory

Robust and ongoing management process

- Established industry-leading standards over 25 years ago; global impoundment policy in place; impoundment database annual update effective June 30, 2020
- Governance structure with global oversight; all Alcoa standards externally benchmarked, updated and deployed
- Independent annual third-party inspections of Alcoa operated impoundments progressing as planned
- Impoundment facilities master planned, engineered, constructed, operated, maintained, closed and rehabilitated in accordance with global standards
- Alcoa has led industry improvements including residue dry stacking and filtration technologies (Kwinana and Pinjarra alumina refineries) and studying options at other locations
- International Council on Mining and Metals (ICMM) member; planning deployment of the new Global Industry Standard for Tailings Management (GISTM)

Inventory of tailings dams & residue storage[1]

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



1. Information as of June 2020. Inventory does not include 97 Alcoa operated and 15 minority joint venture other impoundments such as hydroelectric dams, fresh water reservoirs, stormwater management, process water, ash ponds, process materials outside of bauxite residue, and tailings, closed and remediated legacy location RSAs.

Production and capacity information

Alcoa Corporation annual consolidated amounts as of September 30, 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**
Ras Al Khair[1]	*Saudi Arabia*	*452*	-

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	-
Deschambault	Canada	260	-
Fjarðaál	Iceland	344	-
Lista	Norway	94	-
Mosjøen	Norway	188	-
San Ciprián	Spain	228	-
Intalco[3]	U.S.	279	279
Massena West	U.S.	130	-
Warrick	U.S.	269	108
Wenatchee	U.S.	146	146
Total		**2,993**	**831**
Ras Al Khair[1]	*Saudi Arabia*	*186*	-

1. The Company's proportionate share of earnings from its equity investment in the Saudi Arabian joint venture does not impact adjusted EBITDA.
2. As of September 30, 2020, the Bécancour smelter has fully restarted the curtailed smelting capacity.
3. The curtailment of the remaining 230,000 metric tons of smelting capacity at Intalco is completed as of third quarter of 2020.

Valuation framework

Valuation framework key considerations

				LTM ending 9/30/2020 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 ii. Ownership in certain mines and refineries outside the JV	$507M
	+	Alumina		$533M
	+	Aluminum	Economic value using market multiple of: i. Smelters, casthouses, rolling mill, and energy assets ii. Smelters and casthouses restart optionality	$219M
	-	Non-segment expenses (income)	Economic value using market multiple of: i. Net corporate expenses and Transformation	$123M
	=	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 $2.5B ($2.5B, >95% Alcoa), pension & OPEB net liabilities of $2.4B ($2.4B, >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 $1.6B ($1.7B, ~90% 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 September 30, 2020. The "Alcoa" percentages exclude amounts attributable to Alcoa Corporation's partner in the AWAC JV.

Adjusted EBITDA reconciliation

$M	2Q19	3Q19	4Q19	FY19	1Q20	2Q20	3Q20	LTM
Net (loss) income attributable to Alcoa	**$(402)**	**$(221)**	**$(303)**	**$(1,125)**	**$80**	**$(197)**	**$(49)**	**($469)**
Add:								
Net income (loss) attributable to noncontrolling interest	109	74	(52)	272	59	47	29	83
Provision for income taxes	116	95	54	415	80	45	42	221
Other expenses (income), net	50	27	44	162	(132)	51	45	8
Interest expense	30	30	31	121	30	32	41	134
Restructuring and other charges, net	370	185	363	1,031	2	37	5	407
Depreciation, depletion and amortization	174	184	183	713	170	152	161	666
Adjusted EBITDA	**447**	**374**	**320**	**1,589**	**289**	**167**	**274**	**1,050**
Special items before tax and noncontrolling interest	8	14	26	67	32	18	10	86
Adjusted EBITDA excl. special items	**$455**	**$388**	**$346**	**$1,656**	**$321**	**$185**	**$284**	**$1,136**

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

$M	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20
Cash provided from (used for) operations	$82	$174	$262	$(90)	$288	$158
Capital expenditures	(89)	(87)	(134)	(91)	(77)	(74)
Free cash flow	**(7)**	**87**	**128**	**(181)**	**211**	**84**
Contributions from noncontrolling interest	1	20	10	-	16	8
Distributions to noncontrolling interest	(72)	(102)	(84)	(31)	(75)	(46)
Free cash flow less net distributions to noncontrolling interest	**$(78)**	**$5**	**$54**	**$(212)**	**$152**	**$46**

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

$M	1Q20 Cons.	1Q20 NCI	1Q20 Alcoa Prop.	2Q20 Cons.	2Q20 NCI	2Q20 Alcoa Prop.	3Q20 Cons.	3Q20 NCI	3Q20 Alcoa Prop.
Short-term borrowings	$-	$-	$-	$-	$-	$-	$-	$-	$-
Long-term debt due within one year	1	-	1	1	-	1	2	-	2
Long-term debt, less amount due within one year	1,801	31	1,770	1,800	31	1,769	2,538	31	2,507
Total debt	1,802	31	1,771	1,801	31	1,770	2,540	31	2,509
Less: Cash and cash equivalents	829	139	690	965	157	808	1,736	173	1,563
Net debt	**973**	**(108)**	**1,081**	**836**	**(126)**	**962**	**804**	**(142)**	**946**
Plus: Net pension / OPEB liability	2,265	40	2,225	2,393	38	2,355	2,432	43	2,389
Adjusted net debt	**$3,238**	**$(68)**	**$3,306**	**$3,229**	**$(88)**	**$3,317**	**$3,236**	**$(99)**	**$3,335**

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

$M	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20
Receivables from customers	$684	$596	$546	$570	$402	$516
Add: Inventories	1,767	1,649	1,644	1,509	1,419	1,398
Less: Accounts payable, trade	1,523	1,418	1,484	1,276	1,253	1,360
DWC working capital	$928	$827	$706	$803	$568	$554
Sales	$2,711	$2,567	$2,436	$2,381	$2,148	$2,365
Number of days in the quarter	91	92	92	91	91	92
Days Working Capital[1]	**31**	**30**	**27**	**31**	**24**	**22**

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

$M	2019 YTD	2020 YTD
Numerator:		
Net loss attributable to Alcoa Corporation	$(822)	$(166)
Add: Special items[1]	695	(98)
ROE Adjusted Net loss YTD	**$(127)**	**$(264)**
ROE Adj. Net loss multiplied by four divided by three	**$(169)**	**$(352)**
Denominator[2]:		
Total assets	$15,325	$13,725
Less: Total Liabilities	8,541	8,340
Less: Noncontrolling Interest	1,920	1,593
Shareholders' Equity	**$4,864**	**$3,792**
ROE	**-3.5%**	**-9.3%**

$$\text{ROE \%} = \frac{\text{(Net Loss/Income Attributable to Alcoa + Special Items) X 4/3}}{\text{(Total Assets – Total Liabilities – Noncontrolling Interest)}^2} \times 100$$

$$\text{2019 YTD ROE \%} = \frac{\text{(-\$822 + \$695) X 4/3}}{\text{(\$15,325 – \$8,541 – \$1,920)}} \times 100 = -3.5\%$$

$$\text{2020 YTD ROE \%} = \frac{\text{(-\$166 – \$98) x 4/3}}{\text{(\$13,725 – \$8,340 – \$1,593)}} \times 100 = -9.3\%$$

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

Annualized Return on Capital (ROC)

Reconciliation and calculation information

$M	2019 YTD	2020 YTD
Numerator:		
Net loss attributable to Alcoa Corporation	$(822)	$(166)
Add: Net income attributable to noncontrolling interest	324	135
Add: Provision for income taxes	361	167
Profit before taxes (PBT)	**(137)**	**136**
Add: Interest expense	90	103
Less: Interest income	14	5
Add: Special items[1]	693	(64)
ROC earnings before taxes	**$632**	**$170**
ROC earnings before taxes multiplied by four divided by three	**$843**	**$227**
ROC earnings after fixed tax rate of 35%	**$548**	**$147**
Denominator[2]:		
Total assets	$15,325	$13,725
Less: Cash, cash equivalents, restricted cash and short-term investments	901	1,180
Less: Current liabilities	2,596	2,247
Add: Long-term debt due within one year and short-term borrowings	1	1
Capital Base[2]	**$11,829**	**$10,299**
ROC	**4.6%**	**1.4%**

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

$$\text{2019 YTD ROC \%} = \frac{\text{((-\$137 + \$76 + \$693) x 4/3) x (1 – 0.35)}}{\text{(\$15,325 – \$901 – \$2,596 + \$1)}} \times 100 = 4.6\%$$

$$\text{2020 YTD ROC \%} = \frac{\text{((\$136 + \$98 – \$64) x 4/3) x (1 – 0.35)}}{\text{(\$13,725 – \$1,180 – \$2,247 + \$1)}} \times 100 = 1.4\%$$

1. Special items exclude interest expense, income taxes, and noncontrolling interest.
2. Denominator calculated using average of 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_2e	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/kdmt	Thousand metric tonnes/Thousand dry metric tonnes
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
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
YoY	Year over year
YTD	Year to date

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