The Element of **Possibility**™

Alcoa Corporation

Investor Presentation

March 2021

Alcoa

Important information

Alcoa

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 or sustainability 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 and judgments and assumptions used in our estimates; (b) material adverse changes in aluminum industry conditions, including global supply and demand conditions and fluctuations in London Metal Exchange-based prices and premiums, as applicable, for primary aluminum and other products, and fluctuations in indexed-based and spot prices for alumina; (c) deterioration in global economic and financial market conditions generally and which may also affect Alcoa Corporation’s ability to obtain credit or financing upon acceptable terms or at all; (d) unfavorable changes in the markets served by Alcoa Corporation; (e) the impact of changes in foreign currency exchange and tax rates on costs and results; (f) increases in energy or raw material costs or uncertainty of energy supply or raw materials; (g) declines in the discount rates used to measure pension and other postretirement benefit liabilities or lower-than-expected investment returns on pension assets, or unfavorable changes in laws or regulations that govern pension plan funding; (h) the inability to achieve improvement in profitability and margins, cost savings, cash generation, revenue growth, fiscal discipline, sustainability targets, or strengthening of competitiveness and operations anticipated from portfolio actions, operational and productivity improvements, technology advancements, and other initiatives; (i) the inability to realize expected benefits, in each case as planned and by targeted completion dates, from acquisitions, divestitures, restructuring activities, facility closures, curtailments, restarts, expansions, or joint ventures; (j) political, economic, trade, legal, public health and safety, and regulatory risks in the countries in which Alcoa Corporation operates or sells products; (k) labor disputes and/or 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 Part I Item 1A of Alcoa Corporation’s Form 10-K for the fiscal year ended December 31, 2020 and other reports filed by Alcoa Corporation with the U.S. Securities and Exchange Commission, including those described in this report. 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.

Any information contained in the following slides that has been previously publicly presented by Alcoa speaks as of the date that it was originally presented, as indicated. Alcoa is not updating or affirming any of such information as of today’s date. The provision of this information shall not imply that the information has not changed since it was originally presented.

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

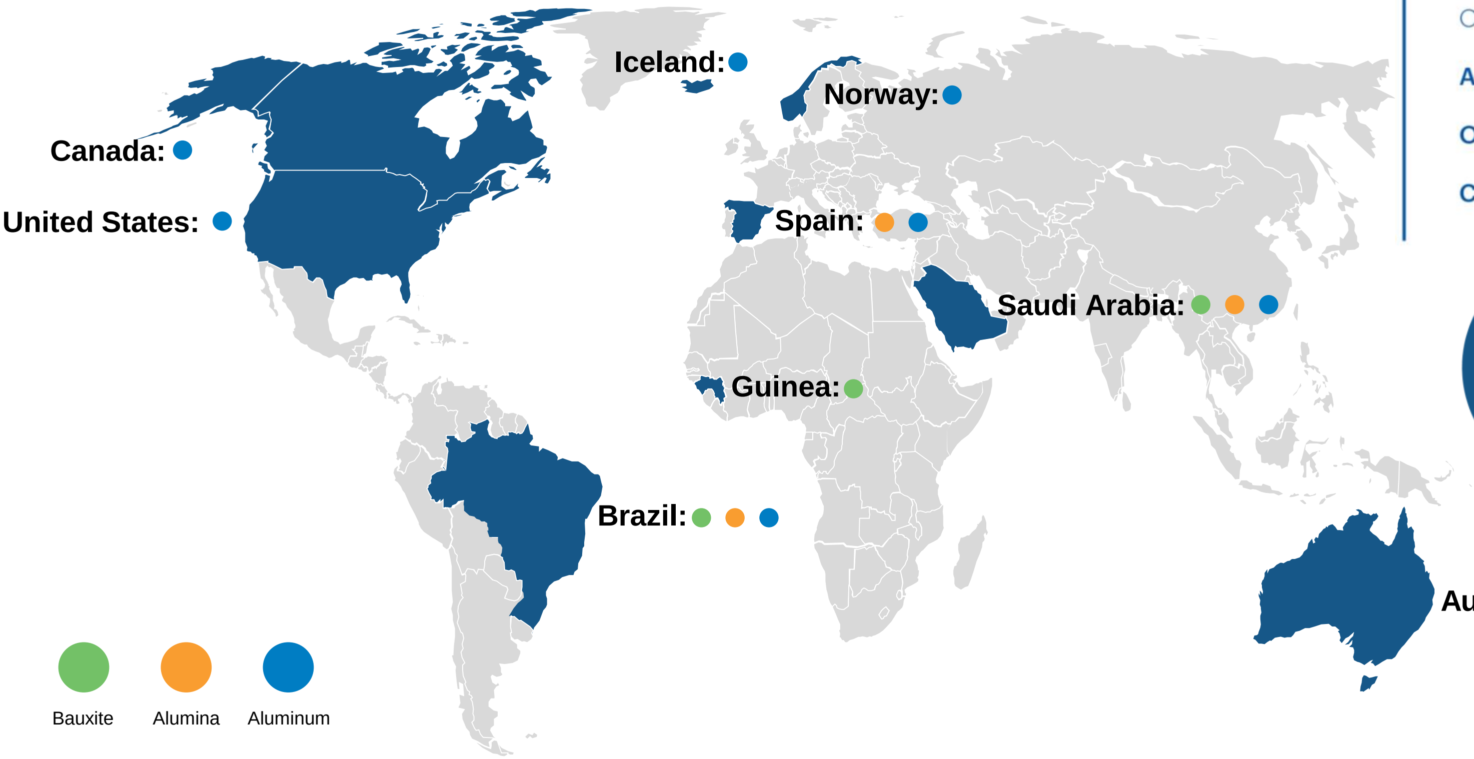
A glossary of abbreviations and defined terms used throughout this presentation can be found in the appendix.

Resources

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

A global, values-driven aluminum industry leader

Alcoa global operations by business segment



OUR VALUES

Act with Integrity

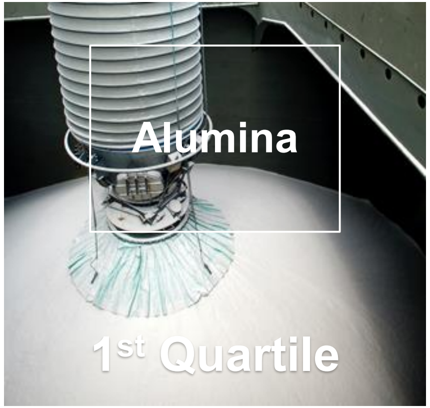
Operate with Excellence

Care for People

Well positioned across three product segments

Alcoa portfolio position

- World's second largest miner with operations across four continents
- World class mine rehabilitation
- Best-in-class mining methods in high biodiversity areas



- Largest refiner and largest long position, outside of China
- Lowest CO_2e intensity refiner; sustainable residue management and press filtration
- EcoSource™ low carbon alumina

- Targeting 1st quartile following portfolio review
- Low CO_2e intensity producer, 78% of production from renewable energy (targeting 85%)
- SUSTANA™ low carbon products

Source: CRU and Alcoa analysis

Aluminum an increasingly attractive solution

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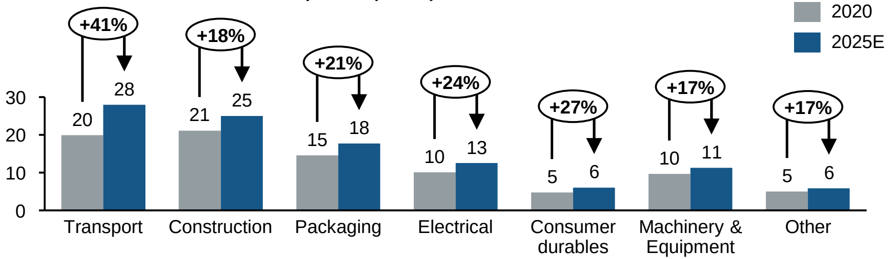
Global aluminum trends

Aluminum integral in transition to low carbon economy and emerging market development

- Lightweight, durable and infinitely recyclable
- Diversified demand, broad range of aluminum applications, sectors
- Accelerating consumer preference for lower carbon footprint materials
- Aluminum intensity to grow in all passenger vehicle categories
- Continued demand growth in construction and electrification
- Sustainability goals and emerging markets drive packaging demand growth

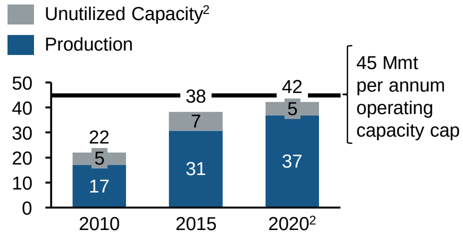
Aluminum semis consumption (Mmt)



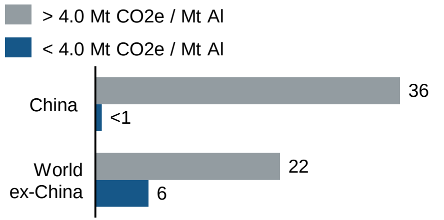
China nearing capacity cap; World ex-China produces ~90% of global low carbon aluminum[1]

- China approaching 45 Mmt per annum smelting operating capacity cap
- China smelting capacity ~80% coal-fired with limited ability to transition to renewables, challenge for long-term CO_2e goals
- Regional CO_2e costs expected to increase by 2030 due to increased worldwide concern over climate change
- ~10% of global primary aluminum production is low carbon[1]

China primary aluminum supply (Mmt)



Primary supply by carbon intensity[1] (Mmt)



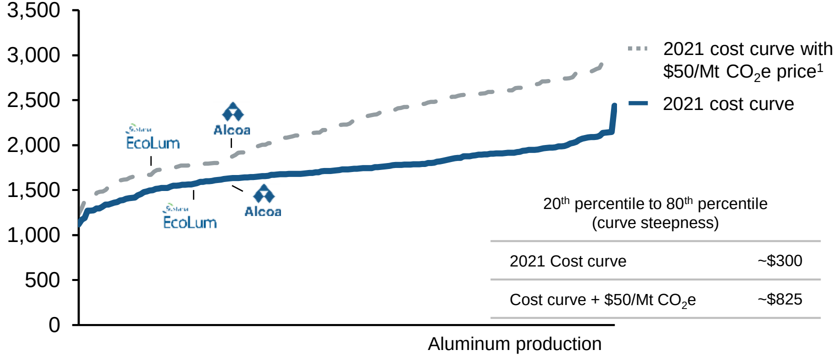
Source: Alcoa analysis, CRU, Ducker, LMC Automotive 1. Scope 1 & 2 emissions from aluminum, alumina & bauxite < 4.0 Mt CO_2e / Mt aluminum in 2020. 2. Excludes ~4 Mmt illegal unutilized capacity

Alcoa well-positioned if carbon price shifts up cost curves

2021 Global cost curve sensitivity to \$50/Mt[1] CO_2e and sites ranked by CO_2e intensity

Aluminum

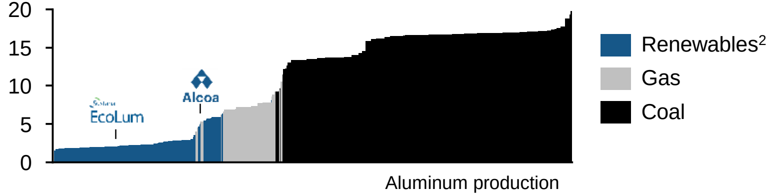
Cost curve impact from global carbon pricing (\$/mt aluminum)



20th percentile to 80th percentile (curve steepness)

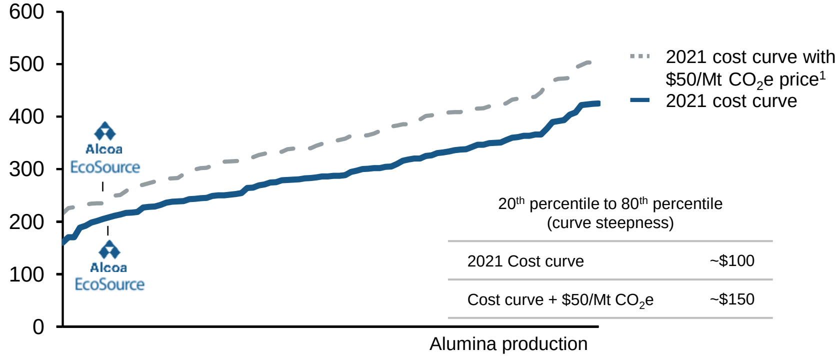
2021 Cost curve	~\$300
Cost curve + \$50/Mt CO_2e	~\$825

CO_2e intensity (Metric tons of CO_2e/Mt aluminum)



Alumina

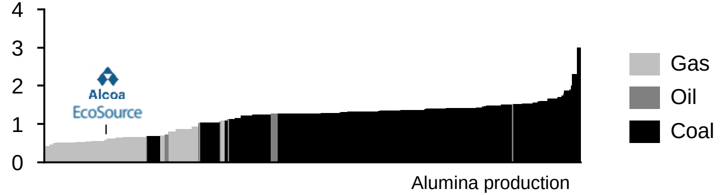
Cost curve impact from global carbon pricing (\$/mt alumina)



20th percentile to 80th percentile (curve steepness)

2021 Cost curve	~\$100
Cost curve + \$50/Mt CO_2e	~\$150

CO_2e intensity (Metric tons of CO_2e/Mt alumina)



Sources: Alcoa analysis, CRU. Consolidated equity cost positions. 1. Applies \$50/Mt price to scope 1 & 2 emissions. 2. Includes hydro, nuclear and other renewable sources of energy.

Many key strategic actions completed, others progressing

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Key strategic actions achievements and timeline

Completed
New operating model

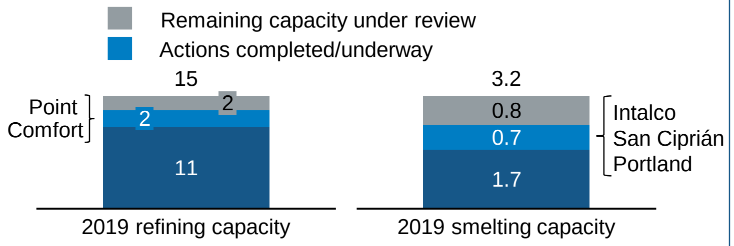
- Redesigned and simplified organizational structure; eliminated business units
- Enhanced operational focus and commercial effectiveness
- Achieved target of $60 million run rate savings

Completed
Non-core asset sales

- Targeted $500 million to $1 billion cash proceeds; ~$850 million cash proceeds announced
- Gum Springs facility sold in 1Q20
- Warrick rolling mill sale closing expected 1Q21
- Rockdale land listed

Ongoing
Asset portfolio review

- Complete Portland power negotiations
- Resolve San Ciprián smelter status
- Remaining review underway (Mmt)



2Q20

1Q21

2024

Delivering a stronger Company amidst industry gains

Key takeaways

- **Market dynamics improving**

  Expecting benefit from supply shifts and aluminum demand growth, especially in emerging markets

- **Focusing on actions**

  Implementing key strategic actions to improve operationally and financially

- **Positioning for a sustainable world**

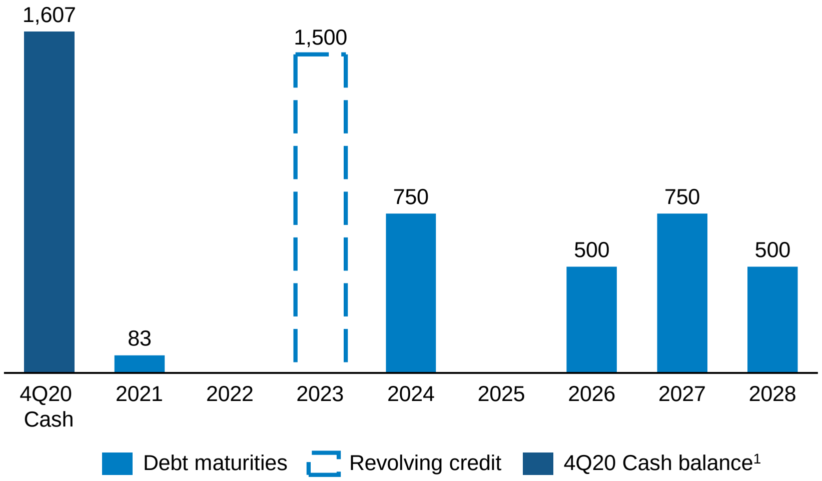
  Leveraging our industry-leading environmental and social standards for a sustainable future

Appendix I

2020 Debt issue and stable conditions provide liquidity

Liquidity position and business considerations

Cash balance and maturity profile ($M)



Cash and liquidity considerations

On July 13, 2020 issued $750 million aggregate principal amount of 5.5% senior notes due 2027

- Rationale at time of issue included providing an interim liquidity cushion during COVID-19 pandemic

Additional considerations over last three quarters:

- Overall market stabilization and improved commodity pricing environment increasing financial stability and reducing need for enhanced liquidity
- Expect closing of the Warrick rolling mill sale in 1Q21 to generate substantial cash proceeds

Will deploy excess cash in accordance with capital allocation framework

1. Does not include future expected proceeds from sale of Warrick rolling mill in 1Q21

Appendix II:
4Q20 Financial Results and Other Information as presented on January 20, 2021

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4Q20 Results improve sequentially and year over year

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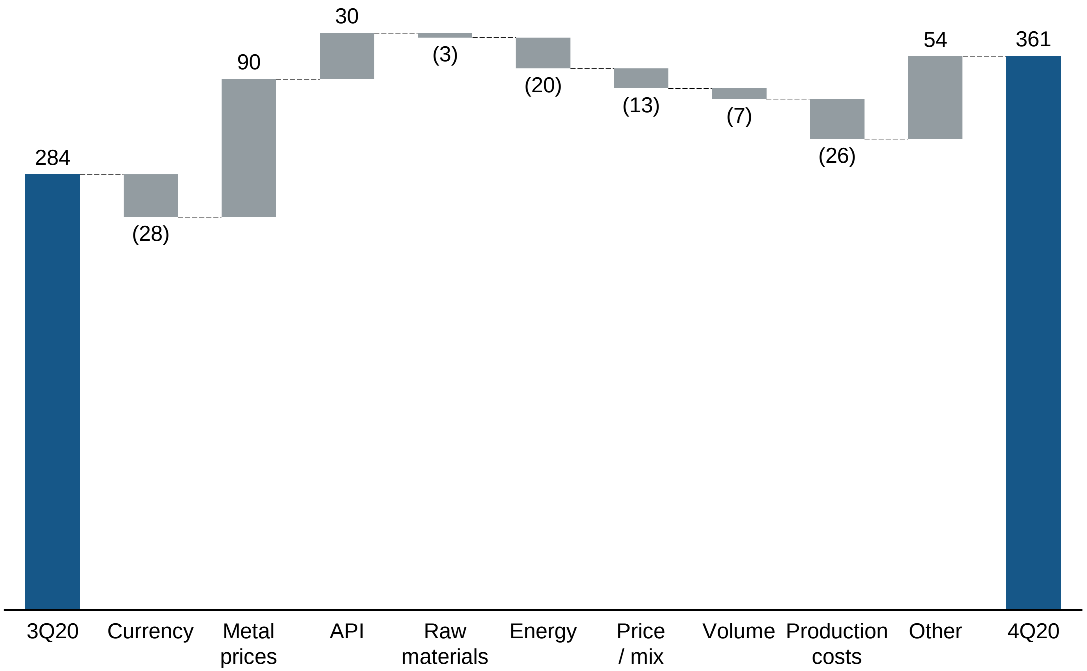
Income statement highlights

M, Except per share amounts	4Q19	3Q20	4Q20	FY19	FY20
Income statement highlights					
Revenue	$2,436	$2,365	**$2,392**	$10,433	**$9,286**
Restructuring and other charges, net	$363	$5	**$60**	$1,031	**$104**
Provision for income taxes	$54	$42	**$20**	$415	**$187**
Net loss attributable to Alcoa Corporation	$(303)	$(49)	**$(4)**	$(1,125)	**$(170)**
Diluted loss per share	$(1.63)	$(0.26)	**$(0.02)**	$(6.07)	**$(0.91)**
Adjusted income statement highlights					
Adjusted EBITDA excluding special items	$346	$284	**$361**	$1,656	**$1,151**
Provision for income taxes	$86	$229	**$27**	$436	**$226**
Operational tax rate	99.5%	540.6%	**25.3%**	67.9%	**129.7%**
Adjusted net (loss) income attributable to Alcoa Corporation	$(57)	$(218)	**$49**	$(184)	**$(215)**
Adjusted diluted (loss) earnings per share	$(0.31)	$(1.17)	**$0.26**	$(0.99)	**$(1.16)**

Higher metal and alumina prices drive EBITDA increase

Adjusted EBITDA excluding special items sequential changes, $M

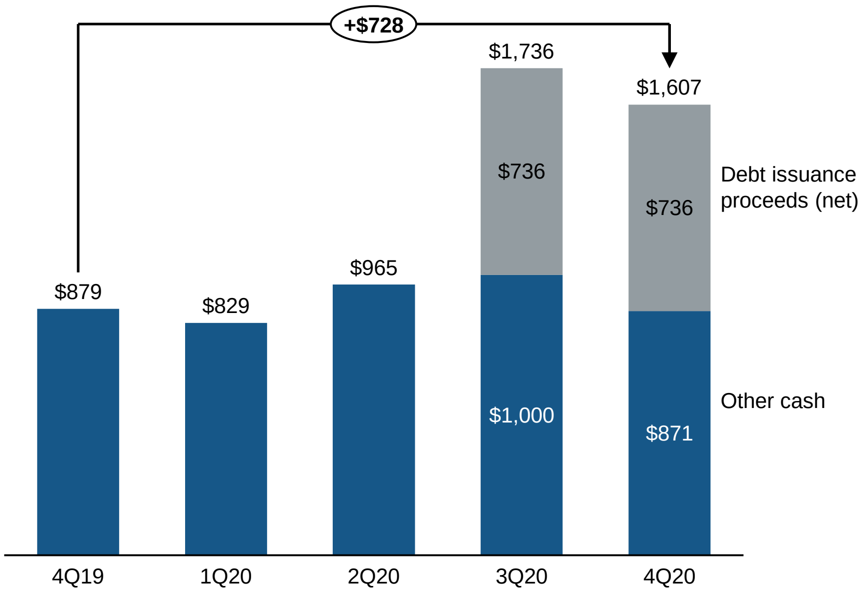


	3Q20	4Q20	Change
Bauxite	$124	$120	$(4)
Alumina	119	97	(22)
Aluminum	116	181	65
Segment total	359	398	39
Transformation	(11)	(8)	3
Intersegment eliminations	(35)	5	40
Other corporate	(29)	(34)	(5)
Total	$284	$361	$77

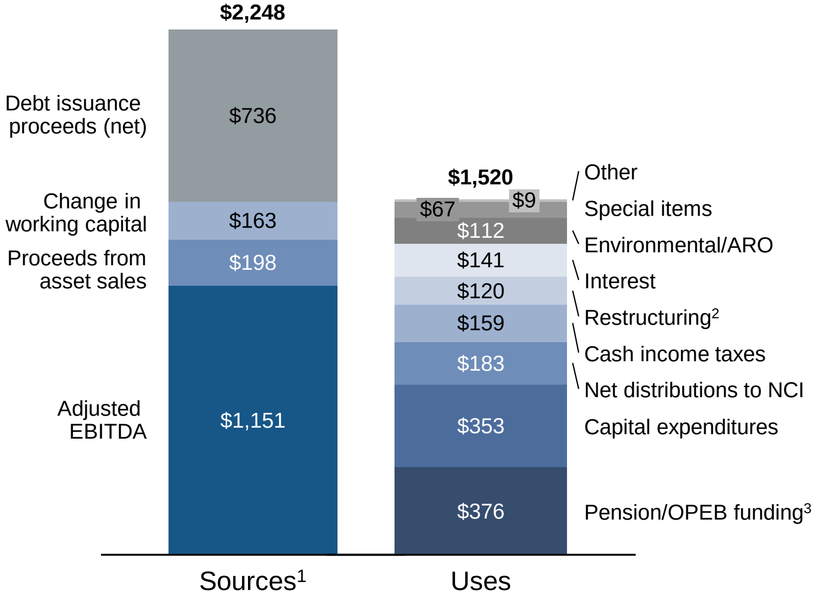
$1.6 billion cash after $250 million U.S. pension funding

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. Pension/OPEB funding of $436 million is reflected net of $60 million related expenses within Adjusted EBITDA; $250 million contributed to U.S. pension plan on December 18, 2020.

Capital allocation framework directs uses of excess cash

Capital allocation framework and considerations

- Maintain liquidity throughout the cycle
- Capital expenditures to sustain and improve operations

Maximize value creation opportunities

Reduce adj. net debt[1] to \$2.0B-\$2.5B over 1-3 years	Return excess cash to stockholders	Transform the portfolio	Invest in value creating growth projects

- \$1 billion target for minimum cash balance; \$1.6 billion as of December 31
- Sustaining capital expenditures of ~\$375 million, return seeking capital of ~\$50 million, per 2021 outlook

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- Based on current discount rates and estimated asset returns, expect to meet adjusted net debt target solely through minimum required pension contributions
- \$150 million available of existing \$200 million buyback authorization
- Portfolio review and transformation over the next four 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.

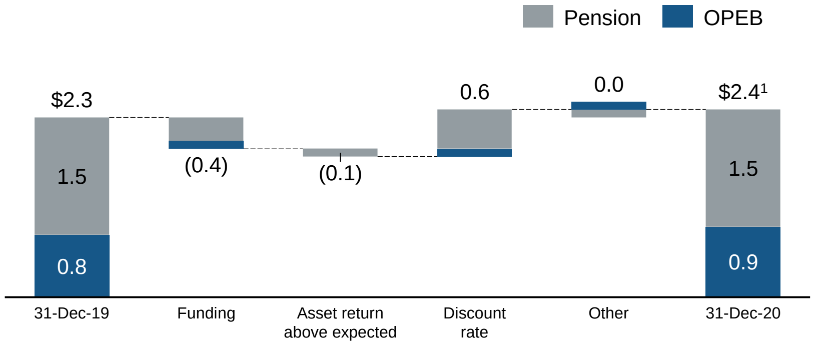
Pension/OPEB net liability $2.4 billion, DWC 4 days better

Key financial metrics and pension/OPEB update

Key financial metrics

FY20 Days working capital (DWC)	FY20 Return on equity
23 Days	**(5.9)%**
FY20 Capital expenditures	**Proportional adjusted net debt[1]**
$353M	**$3.5B**
FY20 Free cash flow less net NCI distributions	**4Q20 Cash balance**
$(142)M	**$1.6B**

Pension/OPEB update, $ billion



FY20 funding

- Pension funding of $343 million (including $250 million in December 2020)
- OPEB payments of $93 million
- GAAP worldwide pension funding status ~77%

After ~$200 million use in early January 2021, U.S. pension pre-funding balance of $500 million available for FY21+

1. Includes OPEB liabilities of approximately $83 million related to the Warrick rolling mill sale; expected to close 1Q21. Recorded in Liabilities held for sale.

Successful cash actions, solid progress on strategic actions

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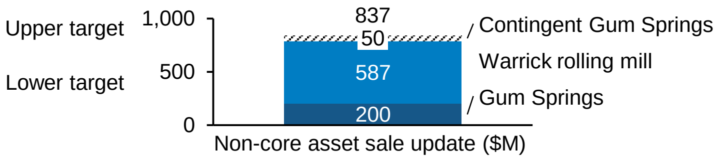
Impacts of cash actions, before tax and noncontrolling interest, $M

Cash actions compared to FY19 baseline

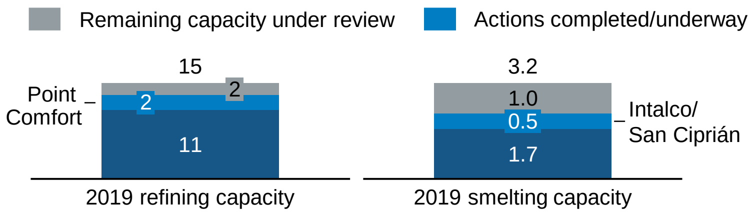
	FY20 Target	FY20 Actual
Key strategic actions		
New operating model	45	45
Non-core asset sales	200	203
Portfolio review	10-75	21
2020 programs		
Leaner working capital	75-100	111
Lower production costs	100	73
COVID-19 response		
Reduce capital expenditures	100	122
Defer environmental/ARO	25	38
Defer pension funding to 2021	220	202[1]
Hiring, travel, other restrictions	35	30
Total	~900	845
San Ciprián strike working capital impact		82
Total	~900	927

New operating model: Leaner, more integrated, operator-centric organization; achieved run-rate savings of ~$60 million per annum

Non-core asset sales: $500 million to $1 billion from non-core asset sales; Warrick rolling announced; Rockdale land remains on market



Portfolio review: 4 million metric tons of alumina refining and 1.5 million metric tons of smelting capacity under review; sustainability targets



1. $202 million deferred under CARES Act during 2020; $250 million contribution made on December 18, 2020.

2021 Outlook

FY20 and FY21 Key metrics

Income statement excl. special items impacts

	FY20 Actual	FY21 Outlook
Bauxite shipments (Mdmt)	48.7	49.0 – 50.0
Alumina shipments (Mmt)	13.9	13.9 – 14.0
Aluminum shipments (Mmt)	3.0	2.7 – 2.8
Transformation (adj. EBITDA impacts)	$(45)M	~ $(65)M
Intersegment elims. (adj. EBITDA impacts)	$(8)M	Varies
Other corporate (adj. EBITDA impacts)	$(113)M	~ $(120)M
Depreciation, depletion and amortization	$653M	~ $675M
Non-operating pension/OPEB expense	$108M	~ $75M
Interest expense	$146M	~ $165M
Operational tax expense[1]	$226M	Varies
Net income of noncontrolling interest	$163M	40% of AWAC NI

Cash flow impacts

	FY20 Actual	FY21 Outlook
Pension / OPEB funding	$436M	~ $315M
Discretionary debt repayment	$0M	Will vary based on market conditions and cash availability
Stock repurchases	$0M	
Return-seeking capital expenditures[2]	$35M	~ $50M
Sustaining capital expenditures[2]	$318M	~ $375M
Payment of prior year income taxes[3]	$45M	~ $25M
Current period cash taxes[1]	$114M	Varies
Environmental and ARO payments[4]	$112M	~ $150M
Impact of restructuring and other charges	$120M	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. Estimate will vary with market conditions and jurisdictional profitability.
2. AWAC portion of FY21 CapEx outlook: ~50% of return-seeking capital expenditures, and ~60% of sustaining capital expenditures.
3. Net of pending tax refunds.
4. As of December 31, 2020, the environmental remediation reserve balance was $321M and the ARO liability was $753M.

Strengthening the Company, 2017-2020

Multi-year strategy to remain competitive in a quickly evolving market

2017 – 2019

Operating Safely and Efficiently

- Revitalized safety program with zero fatalities
- Implemented new operating model and announced $60M annual savings starting in 2Q20
- Modernized labor contracts in Canada, U.S. and Australia

Optimizing and Reshaping the Portfolio

- Restarted Lake Charles, Portland, and Warrick facilities
- Finalized Point Comfort, Rockdale, and Suriname closures
- Divested Avilés, La Coruña, and Portovesme facilities, and minority interest in Saudi rolling mill

Advancing Financial Longevity

- Froze salaried pension plan as of Jan. 1, 2021; prefunded pension with $500 million debt issue
- Renegotiated revolving credit for more favorable terms
- Reduced administrative locations; moved headquarters to Pittsburgh

Investing in Growth and Sustainability

- Set both annual and quarterly production records
- Initiated new smelter creep project
- Launched ELYSIS™ joint venture, joined International Council on Mining and Metals, achieved ASI certifications across value chain

2020

- Continued safety focus; comprehensive preparedness and response plan maintained across all locations to protect personnel and mitigate impact of COVID-19
- Set numerous location and segment production records; Bécancour restart complete
- Bolstered liquidity through $750 million debt issuance; deferred ~$200 million of U.S. pension funding throughout 2020 and made $250 million contribution in December
- Made first non-core asset sales: Gum Springs treatment facility sold for $250 million and announced sale of Warrick rolling mill for $670 million (expect closing in 1Q21)
- Curtailed Intalco and announced San Ciprián action as part of the multi-year review of asset portfolio
- Expanded sales of Sustana™ low carbon products, introduced EcoSource™ world's first low carbon alumina
- 2020 cash programs, comprised of lower production costs and working capital reduction, achieved $184 million of the $175 million to $200 million target, despite $82 million higher working capital related to union actions at San Ciprian

Quarterly income statement

Quarterly income statement

M, Except realized prices and per share amounts	4Q19	3Q20	4Q20	Prior Year Change	Sequential Change
Realized primary aluminum price ($/mt)	$2,042	$1,904	**$2,094**	$52	$190
Realized alumina price ($/mt)	$291	$274	**$268**	$(23)	$(6)
Revenue	$2,436	$2,365	**$2,392**	$(44)	$27
Cost of goods sold	2,048	2,038	**1,974**	(74)	(64)
SG&A and R&D expenses	68	53	**64**	(4)	11
Adjusted EBITDA	320	274	**354**	34	80
Depreciation, depletion and amortization	183	161	**170**	(13)	9
Other expenses, net	44	45	**44**	0	(1)
Interest expense	31	41	**43**	12	2
Restructuring and other charges, net	363	5	**60**	(303)	55
Provision for income taxes	54	42	**20**	(34)	(22)
Net (loss) income	(355)	(20)	**17**	372	37
Less: Net (loss) income attributable to noncontrolling interest	(52)	29	**21**	73	(8)
Net loss attributable to Alcoa Corporation	$(303)	$(49)	**$(4)**	$299	45
Diluted loss per share	$(1.63)	$(0.26)	**$(0.02)**	$1.61	$0.24
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	**4Q19**	**3Q20**	**4Q20**	**Description of significant 4Q20 special items**
Net loss attributable to Alcoa Corporation	$(303)	$(49)	**$(4)**	
Diluted loss per share	$(1.63)	($0.26)	**($0.02)**	
Special items	$246	$(169)	**$53**	
Cost of goods sold	*26*	*7*	***3***	Lake Charles hurricane costs
SG&A and R&D expenses	*-*	*3*	***4***	Portfolio action costs
Restructuring and other charges, net	*363*	*5*	***60***	Pension/OPEB related actions
Other (income) expenses, net	*(1)*	*4*	***(2)***	
Provision for income taxes	*(32)*	*(187)*	***(7)***	Discrete tax items and interim tax impacts
Noncontrolling interest	*(110)*	*(1)*	***(5)***	
Adjusted net (loss) income attributable to Alcoa Corporation	$(57)	$(218)	**$49**	
Adjusted diluted (loss) income per share	$(0.31)	$(1.17)	**$0.26**	

Quarterly income statement excluding special items

Quarterly income statement excluding special items

M, Except realized prices and per share amounts	**4Q19**	**3Q20**	**4Q20**	**Prior Year Change**	**Sequential Change**
Realized primary aluminum price ($/mt)	$2,042	$1,904	**$2,094**	$52	$190
Realized alumina price ($/mt)	$291	$274	**$268**	$(23)	$(6)
Revenue	$2,436	$2,365	**$2,392**	$(44)	$27
Cost of goods sold	2,022	2,031	**1,971**	(51)	(60)
COGS % of Revenue	83.0%	85.9%	**82.4%**	(0.6)% pts.	(3.5)% pts.
SG&A and R&D expenses	68	50	**60**	(8)	10
SG&A and R&D % of Revenue	2.8%	2.1%	**2.5%**	(0.3)% pts.	0.4% pts.
Adjusted EBITDA	346	284	**361**	15	77
Depreciation, depletion and amortization	183	161	**170**	(13)	9
Other expenses, net	45	41	**46**	1	5
Interest expense	31	41	**43**	12	2
Provision for income taxes	86	229	**27**	(59)	(202)
Operational tax rate	99.5%	540.6%	**25.3%**	(74.2)% pts.	(515.3)% pts.
Adjusted net income (loss)	1	(188)	**75**	74	263
Less: Adjusted net income attributable to noncontrolling interest	58	30	**26**	(32)	(4)
Adjusted net (loss) income attributable to Alcoa Corporation	$(57)	$(218)	**$49**	$106	$267
Adjusted diluted (loss) income per share	$(0.31)	$(1.17)	**$0.26**	$0.57	$1.43
Diluted average shares[1]	185.6	185.9	**187.7**	2.1	1.8

1. For 4Q19 and 3Q20, 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.

4Q20 Financial summary

Three months ending December 31, 2020, excluding special items

$M	Bauxite	Alumina	Aluminum[3,4]	Transformation	Intersegment eliminations	Other corporate	Alcoa Corporation
Total revenue	$304	$934	$1,690	$4	$(544)	$4	$2,392
Third-party revenue	$79	$620	$1,685	$4	-	$4	$2,392
Adjusted EBITDA[1]	$120	97	$181	$(8)	$5	$(34)	$361
Adjusted EBITDA margin %	*39.5%*	*10.4%*	*10.7%*				*15.1%*
Depreciation, depletion and amortization	$38	$45	$82	-	-	$5	$170
Other expenses (income), net[2]	-	$2	$(6)	-	-	$50	$46
Interest expense							$43
Provision for income taxes							$27
Adjusted net income							$75
Net income attributable to noncontrolling interest							$26
Adjusted net income attributable to Alcoa Corp.							$49

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, $297M and $21M, respectively.
4. Third-party energy sales volume, revenue and adjusted EBITDA in Brazil were 921 GWh, $32M and $6M, respectively.

4Q20 Adjusted EBITDA drivers by segment

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

Segment	Adj. EBITDA 3Q20	Currency	Metal prices	API	Raw materials	Energy	Price/mix	Volume	Production costs	Other	Adj. EBITDA 4Q20
Bauxite	$124	(4)	0	0	0	0	(12)	(6)	(3)	21	$120
Alumina	$119	(16)	0	20	3	(5)	(10)	(1)	(5)	(8)	$97
Aluminum	$116	(8)	93	(10)	(6)	(15)	9	0	(18)	20	$181
Segment Total	**$359**	**(28)**	**93**	**10**	**(3)**	**(20)**	**(13)**	**(7)**	**(26)**	**33**	**$398**

Income statement information

Alcoa

FY19 and FY20 Annual income statement

	FY19			FY20		
M, Except realized prices and per share amounts	**Reported**	**Special items**	**Adjusted excl. special items**	**Reported**	**Special items**	**Adjusted excl. special items**
Realized primary aluminum price ($/mt)	$2,141		$2,141	$1,915		$1,915
Realized alumina price ($/mt)	$343		$343	$273		$273
Revenue	$10,433		$10,433	$9,286		$9,286
Cost of goods sold	8,537	$(65)	8,472	7,969	$(59)	7,910
COGS % revenue	81.8%		81.2%	85.8%		85.2%
SG&A and R&D expenses	307	(2)	305	233	(8)	225
SG&A and R&D % revenue	2.9%		2.9%	2.5%		2.4%
Adjusted EBITDA	1,589	67	1,656	1,084	67	1,151
Depreciation, depletion and amortization	713		713	653		653
Other expenses, net	162	17	179	8	170	178
Interest expense	121		121	146		146
Restructuring and other charges, net	1,031	(1,031)	-	104	(104)	-
Provision for income taxes	415	21	436	187	39	226
Tax rate	-94.9%		67.9%	108.1%		129.7%
Net (loss) income	(853)	1,060	207	(14)	(38)	(52)
Less: Net income attributable to noncontrolling interest	272	119	391	156	7	163
Net loss attributable to Alcoa Corporation	$(1,125)	$941	$(184)	$(170)	$(45)	$(215)
Diluted loss per share	$(6.07)	$5.08	$(0.99)	$(0.91)	$(0.25)	$(1.16)
Diluted average shares	185.5		185.5	185.9		185.9

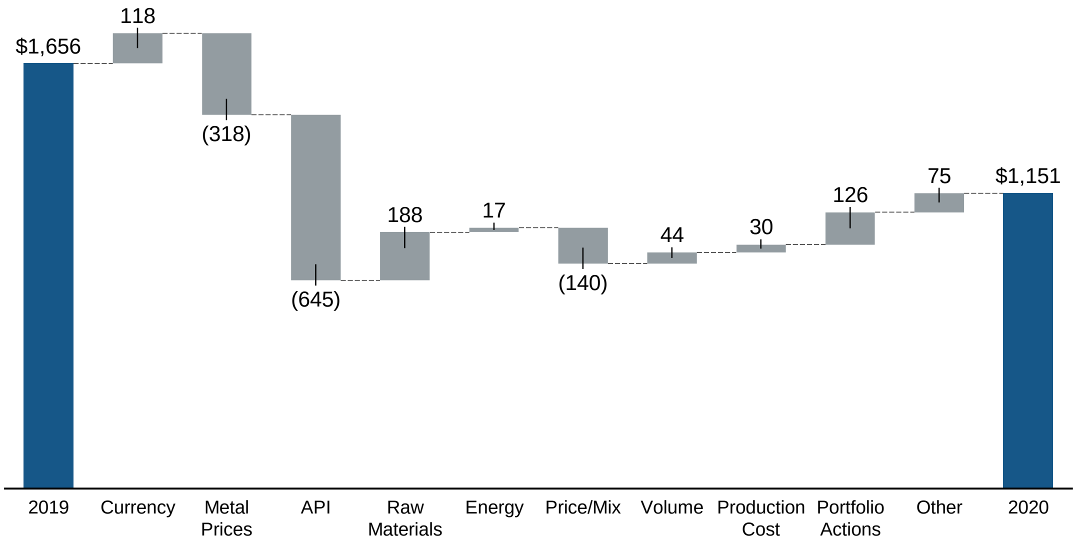
FY20 Financial information

FY20 Highlights and annual change impacts

Full year financial highlights

	FY20	vs. FY19
Realized primary aluminum price ($/mt)	$1,915	$(226)
Realized alumina price ($/mt)	$273	$(70)
Revenue, $M	$9,286	$(1,147)
Adjusted EBITDA excl. special items, $M	$1,151	$(505)
Net loss attributable to Alcoa, $M	$(170)	$955
Adjusted net loss attributable to Alcoa, $M	$(215)	$(31)
Adjusted EPS, $ per share	$(1.16)	$(0.17)

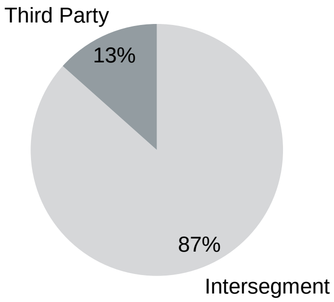
Adjusted EBITDA excl. special items bridge, $M



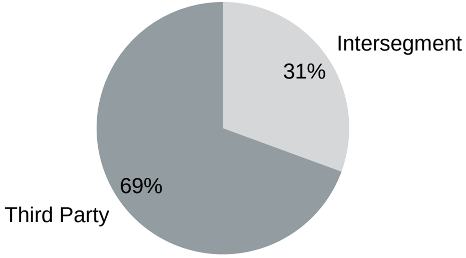
Aluminum value chain

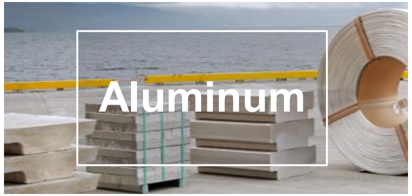
FY20 Alcoa product shipments by segment

48.7 Mdmt shipments

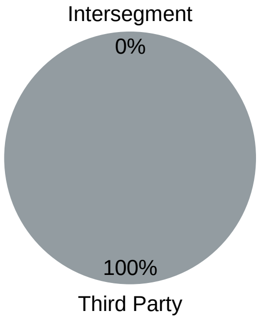


13.9 Mmt shipments





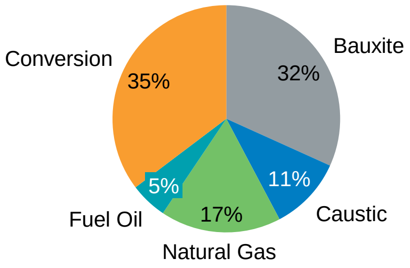
3.0 Mmt shipments



Composition of alumina and aluminum production costs

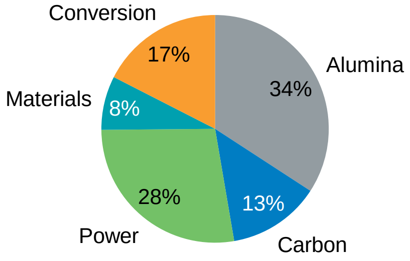
Alcoa 4Q20 production cash costs

Alumina refining



Input Cost	Inventory Flow	Pricing Convention	FY21 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	FY21 Annual Cost Sensitivity
Alumina	~2 Months	API on a 6 - 8 month average	$42M 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

2021 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 0.73[1]	BRL + 0.10 5.40[1]	CAD + 0.01 1.31[1]	EUR + 0.01 1.19[1]	ISK + 10 134.72[1]	NOK + 0.10 9.05[1]
Bauxite						(4)	2				
Alumina		120				(16)	4		(1)		
Aluminum	195	(42)	122	82	31	(1)	(1)	2	(3)	7	2
Total	195	78	122	82	31	(21)	5	2	(4)	7	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 2021 Primary aluminum shipments
Midwest	~50%
Rotterdam Duty Paid	~40%
CIF Japan	~10%

1. Average 4Q20 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
12/31/19 currencies	0.70	4.05	1.31	1.12	121.38	8.82	
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
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 sequential impact	15.4	1.8	0.8	(0.6)	0.8	1.0	19.1
12/31/20 currencies	**0.77**	**5.19**	**1.28**	**1.23**	**127.22**	**8.58**	
4Q20 revaluation	(10.6)	(2.1)	(3.6)	1.7	(0.1)	3.3	(11.4)
4Q20 revaluation sequential impact	**(5.9)**	**(5.7)**	**(2.7)**	**2.9**	**(1.5)**	**3.2**	**(9.7)**

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)
12/31/20 currency avg.	0.73	5.40	1.31	1.19	134.72	9.05	
4Q20 currency impact	**(9.8)**	**0.9**	**(2.0)**	**(5.9)**	**(0.8)**	**(0.8)**	**(18.4)**
Total 4Q20 EBITDA currency impact[1]	**(15.7)**	**(4.8)**	**(4.7)**	**(3.0)**	**(2.3)**	**2.4**	**(28.1)**

Totals may not tie due to rounding

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

Additional business considerations

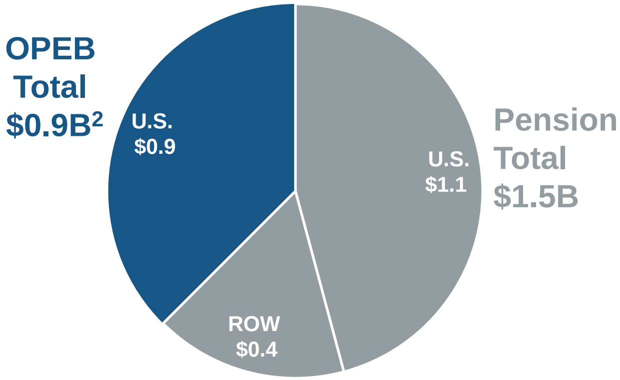
Items expected to impact Adjusted EBITDA for 1Q21

- Sequentially, Adjusted EBITDA in the Bauxite segment is expected to be ~$45 million lower due to lower internal bauxite pricing, and an additional $25 million lower due to lower earnings from minority owned mines and non-recurrence of favorable revenue true ups that occurred in 4Q20
- The Alumina segment expects the offsetting benefit of $45 million from lower bauxite internal prices, partially offset by $15 million of higher energy costs and seasonal maintenance costs
- In the Aluminum segment, alumina costs are estimated to be ~$20 million higher sequentially and other items (excluding metal prices and currency) are expected to be unfavorable $10 million sequentially
- Due to volatility in quarter end exchange rates, 4Q20 Adjusted EBITDA included an unfavorable balance sheet revaluation impact of $11 million (with $10 million negative sequential compared to 3Q20); impacts related to balance sheet revaluation are not incorporated into the currency sensitivities provided for Adjusted EBITDA
- Estimate intersegment profit elimination for every $10/mt decrease in API prices to be a $7 to $9 million favorable impact based on comparison of the average prices of the last two months of each quarter; in the first quarter, we also expect related changes in intersegment inventories volumes and margins to add an additional $10 million sequential benefit to the intersegment eliminations; consider intersegment eliminations as component of minority interest calculation
- In addition, the Company expects first quarter 2021 operational tax expense to approximate ~$65 million based on recent pricing

Pension and OPEB summary

Net pension and OPEB liability and financial impacts

Net liability as of December 31, 2020[1]



Pension funding status as of December 31, 2020

- U.S. ERISA ~82% (~93% including pre-funding balance)
- GAAP Worldwide ~77%

U.S. pension contributions currently not tax deductible

Estimated financial impacts, $M

Expense impact	**2021**
Segment pension	$20
Segment OPEB	5
Corporate pension & OPEB	-
Total adj. EBITDA impact	**25**
Non-operating	75
Special items[3] (curtailment/settlement)	22
Total expense impact	**$122**

Cash flow impact	**2021**
Minimum required pension funding[4]	$255
OPEB payments	65
Total cash impact	**$320**

1. The impact on the combined pension and OPEB liability of a 25 basis point change in the weighted average discount rate is approximately $200 million.
2. Includes OPEB liabilities of approximately $83 million related to the Warrick rolling mill sale; expected to close 1Q21. Recorded in Liabilities held for sale.
3. U.S. hourly medical plan to be remeasured due to the sale of the Warrick rolling mill expected to close 1Q21.
4. U.S. pension cash funding requirements are based on smoothed asset performance and 25-year average segment rates mandated by the IRS. Minimum required pension funding for 2021 does not include 2020 funding of $197 million deferred to January 4, 2021 under the CARES Act and satisfied with pre-funding balance.

Investments summary

Alcoa

Investments listing and income statement location

Investee	Country	Nature of Investment[4]	Ownership Interest	Carrying Value as of December 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™				***$559M***	***Other 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				***$492M***	***COGS***
Total investments				**$1,051M**	

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.

Alcoa sustainability goals

Alcoa strategic long-term goals from 2019 Sustainability Report

Safety	Zero fatalities and serious injuries (life-threatening, life-altering injury or illness)	**Waste**	From a 2015 baseline, reduce landfilled waste 15% by 2025 and 25% by 2030
Diversity & Inclusion	Attain an inclusive ‘everyone culture’ that reflects the diversity of the communities in which we operate	**Water**	From a 2015 baseline, reduce the intensity of our total water use from Alcoa-defined water-scarce locations by 5% by 2025 and 10% by 2030
Mine Rehabilitation	Maintain a corporate-wide running 5-year average ratio of 1:1 or better for active mining disturbance (excluding long-term infrastructure) to mine rehabilitation	**Greenhouse gas emissions**	Align our greenhouse gas (direct + indirect) emissions reduction targets with the 2ºC decarbonization path by reducing greenhouse gas intensity by 30% by 2025, and 50% by 2030 from a 2015 baseline
Bauxite residue	From a 2015 baseline, reduce bauxite residue land requirements per metric ton of alumina produced by 15% by 2030	**Sustainable value chain**	By 2022, implement a social management system at all locations, including the definition of performance metrics and long-term goals to be accomplished by 2025 and 2030

Rigorous standard in place to manage tailings and residue

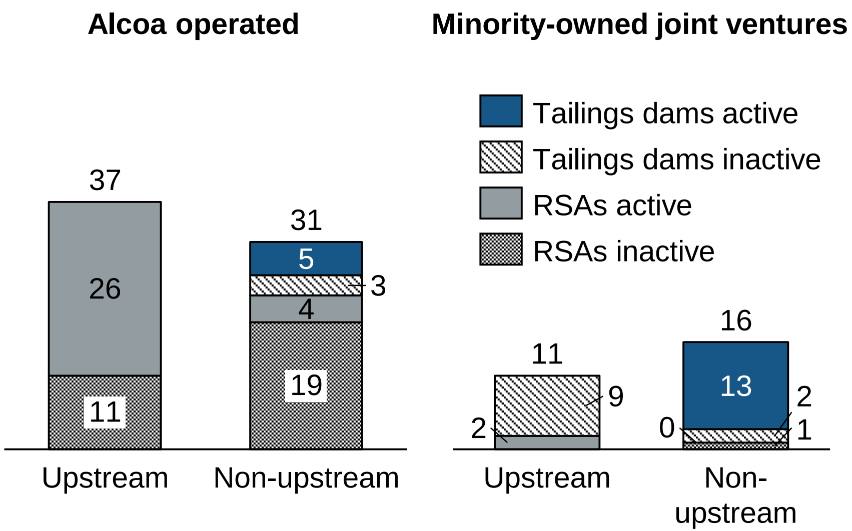
Tailings and residue impoundments management process and inventory

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 December 31, 2020

Bauxite production, Mdmt

Mine	Country	2020 Production
Darling Range	Australia	34.8
Juruti	Brazil	6.1
Poços de Caldas	Brazil	0.2
Trombetas (MRN)	Brazil	2.1
Boké (CBG)	Guinea	3.6
Al Ba'itha[1]	Saudi Arabia	1.2
Total		**48.0**

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 was completed as of the third quarter of 2020.

Valuation framework

Alcoa

Valuation framework key considerations

				FY20 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	$495M
	+	Alumina		$497M
	+	Aluminum	Economic value using market multiple of: i. Smelters, casthouses, rolling mill, and energy assets ii. Smelters and casthouses restart optionality	$325M
	-	Non-segment expenses (income)	Economic value using market multiple of: i. Net corporate expenses and Transformation	$166M
	=	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[1,2]	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 ($1.1B, ~75% Alcoa)	
	+	Cash & equity investments[1]	Cash position of $1.4B ($1.6B, ~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 December 31, 2020. The "Alcoa" percentages exclude amounts attributable to Alcoa Corporation's partner in the AWAC JV.
2. Includes OPEB liabilities of approximately $83 million related to the Warrick rolling mill sale; expected to close 1Q21. Recorded in Liabilities held for sale.

Adjusted EBITDA reconciliation

$M	1Q19	2Q19	3Q19	4Q19	FY19	1Q20	2Q20	3Q20	4Q20	FY20
Net (loss) income attributable to Alcoa	**$(199)**	**$(402)**	**$(221)**	**$(303)**	**$(1,125)**	**$80**	**$(197)**	**$(49)**	**$(4)**	**($170)**
Add:										
Net income (loss) attributable to noncontrolling interest	141	109	74	(52)	272	59	47	29	21	156
Provision for income taxes	150	116	95	54	415	80	45	42	20	187
Other expenses (income), net	41	50	27	44	162	(132)	51	45	44	8
Interest expense	30	30	30	31	121	30	32	41	43	146
Restructuring and other charges, net	113	370	185	363	1,031	2	37	5	60	104
Depreciation, depletion and amortization	172	174	184	183	713	170	152	161	170	653
Adjusted EBITDA	**448**	**447**	**374**	**320**	**1,589**	**289**	**167**	**274**	**354**	**1,084**
Special items before tax and noncontrolling interest	19	8	14	26	67	32	18	10	7	67
Adjusted EBITDA excl. special items	**$467**	**$455**	**$388**	**$346**	**$1,656**	**$321**	**$185**	**$284**	**$361**	**$1,151**

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.

Operational tax reconciliation

$M	1Q19	2Q19	3Q19	4Q19	FY19	1Q20	2Q20	3Q20	4Q20	FY20
Provision for income taxes	$150	$116	$95	$54	$415	$80	$45	$42	$20	$187
Tax on special items	1	10	12	9	32	8	1	3	1	13
Discrete tax items	-	(1)	(8)	(2)	(11)	(1)	-	2	25	26
Interim tax impacts[1]	(34)	(31)	40	25	-	(21)	(142)	182	(19)	-
Operational tax provision	**$117**	**$94**	**$139**	**$86**	**$436**	**$66**	**($96)**	**$229**	**$27**	**$226**
Operational tax rate	**54.5%**	**46.5%**	**99.5%**	**99.5%**	**67.9%**	**78.5%**	**178.3%**	**540.6%**	**25.3%**	**129.7%**

The Company's non-GAAP financial measures are adjusted for applicable income tax impacts. The non-GAAP income tax provision, which we refer to as our operational tax, is calculated on a full year basis in a manner consistent with our GAAP tax provision except for exclusion of the following items:

- Tax cost or benefit attributable to special items based on the applicable statutory rates in the jurisdictions where the special items occurred;
- Discrete tax items (generally unusual or infrequently occurring items, changes in law, items associated with uncertain tax positions, or effects of measurement-period adjustments); and
- Interim tax impacts required under GAAP which have the effect of smoothing tax provisioned across quarters.

[1] Beginning in the first quarter of 2021, the Company will revise the way our operational tax provision is calculated on an interim basis. The operational tax provision will begin to include the interim tax impacts required under GAAP that have previously been excluded from our operational tax provision calculation. In periods of volatility when profit before tax by jurisdiction moves considerably between periods, inclusion of the GAAP interim tax impacts can reduce the fluctuations in the interim operational tax provision. This change will have no impact on our full year forecasted operational tax provision and will be used in all future periods.

Free cash flow reconciliation

$M	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20
Cash provided from (used for) operations	$168	$82	$174	$262	$(90)	$288	$158	$38
Capital expenditures	(69)	(89)	(87)	(134)	(91)	(77)	(74)	(111)
Free cash flow	**99**	**(7)**	**87**	**128**	**(181)**	**211**	**84**	**(73)**
Contributions from noncontrolling interest	20	1	20	10	-	16	8	-
Distributions to noncontrolling interest	(214)	(72)	(102)	(84)	(31)	(75)	(46)	(55)
Free cash flow less net distributions to noncontrolling interest	**$(95)**	**$(78)**	**$5**	**$54**	**$(212)**	**$152**	**$46**	**$(128)**

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

	FY18			FY19			FY20		
$M	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.
Short-term borrowings	$-	$-	$-	$-	$-	$-	$77	$31	$46
Long-term debt due within one year	1	-	1	1	-	1	2	-	2
Long-term debt, less amount due within one year	1,801	34	1,767	1,799	31	1,768	2,463	-	2,463
Total debt	1,802	34	1,768	1,800	31	1,769	2,542	31	2,511
Less: Cash and cash equivalents	1,113	296	817	879	167	712	1,607	176	1,431
Net debt	**689**	**(262)**	**951**	**921**	**(136)**	**1,057**	**935**	**(145)**	**1,080**
Plus: Net pension / OPEB liability	2,327	28	2,299	2,330	40	2,290	2,426[1]	54	2,372[1]
Adjusted net debt	**$3,016**	**$(234)**	**$3,250**	**$3,251**	**$(96)**	**$3,347**	**$3,361**	**$(91)**	**$3,452**

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.

1. Includes OPEB liabilities of approximately $83 million related to the Warrick rolling mill sale; expected to close 1Q21. Recorded in Liabilities held for sale.

Days Working Capital

$M	**1Q19**	**2Q19**	**3Q19**	**4Q19**	**1Q20**	**2Q20**	**3Q20**	**4Q20**
Receivables from customers	$758	$684	$596	$546	$570	$402	$516	$471
Add: Inventories	1,799	1,767	1,649	1,644	1,509	1,419	1,398	1,398
Add: Net DWC working capital held for sale[2]	–	–	–	–	–	–	–	129
Less: Accounts payable, trade	1,503	1,523	1,418	1,484	1,276	1,253	1,360	1,403
DWC working capital	$1,054	$928	$827	$706	$803	$568	$554	$595
Sales	$2,719	$2,711	$2,567	$2,436	$2,381	$2,148	$2,365	$2,392
Number of days in the quarter	90	91	92	92	91	91	92	92
Days Working Capital[1]	**35**	**31**	**30**	**27**	**31**	**24**	**22**	**23**

1. Days Working Capital = DWC working capital divided by (Sales / number of days in the quarter).
2. Includes net working capital related to the Warrick rolling mill sale; expected to close 1Q21. Recorded in Assets and Liabilities held for sale.

Annualized Return on Equity (ROE)

Reconciliation and calculation information

$M	2019	2020
Numerator:		
Net loss attributable to Alcoa Corporation	$(1,125)	$(170)
Add: Special items[1]	941	(45)
ROE Adjusted Net loss YTD	**$(184)**	**$(215)**
Denominator[2]:		
Total assets	$15,152	$14,009
Less: Total Liabilities	8,592	8,723
Less: Noncontrolling Interest	1,884	1,621
Shareholders' Equity	**$4,676**	**$3,665**
ROE	**-3.9%**	**-5.9%**

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

$$\textbf{2019 YTD ROE \%} = \frac{(-\$1{,}125 + \$941)}{(\$15{,}152 – \$8{,}592 – \$1{,}884)} \times 100 = -3.9\%$$

$$\textbf{2020 YTD ROE \%} = \frac{(-\$170 – \$45)}{(\$14{,}009 – \$8{,}723 – \$1{,}621)} \times 100 = -5.9\%$$

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	2020
Numerator:		
Net loss attributable to Alcoa Corporation	$(1,125)	$(170)
Add: Net income attributable to noncontrolling interest	272	156
Add: Provision for income taxes	415	187
Profit before taxes (PBT)	**(438)**	**173**
Add: Interest expense	121	146
Less: Interest income	18	7
Add: Special items[1]	1,082	1
ROC earnings before taxes	**$747**	**$313**
ROC earnings after fixed tax rate of 35%	**$485**	**$204**
Denominator[2]:		
Total assets	$15,152	$14,009
Less: Cash, cash equivalents, restricted cash and short-term investments	897	1,287
Less: Current liabilities[6]	2,588	2,352
Add: Long-term debt due within one year and short-term borrowings	1	21
Capital Base[2]	**$11,668**	**$10,391**
ROC	**4.2%**	**2.0%**

ROC % = (PBT + net interest[3] + special items[1]) x (1 – fixed tax rate[4]) / (Total assets – cash[5] – current liabilities + short-term debt) X 100

2019 YTD ROC % = (-$438 + $103 + $1,082) x (1 – 0.35) / ($15,152 – $897 – $2,588 + $1) X 100 = 4.2%

2020 YTD ROC % = ($173 + $139 + $1) x (1 – 0.35) / ($14,009 – $1,287 – $2,352 + $21) X 100 = 2.0%

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.
6. 2020 adjusted to exclude approximately $91 million for previously noncurrent liabilities related to the Warrick rolling mill sale; expected to close 1Q21. Recorded in current Liabilities held for sale.

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
CPI	Consumer Price Index
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
FOB WA	Freight on board Western Australia
FY##	Twelve months ending December 31
GAAP	Accounting principles generally accepted in the United States of America
GJ	Gigajoule
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
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
SHFE	Shanghai Futures Exchange
TBD	To be determined
U.S.	United States of America
USD	United States dollar
YTD	Year to date

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