The Element of **Possibility**™

Alcoa Corporation

Investor Presentation

May 2021



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 or sustainability performance; statements about strategies, outlook, and business and financial prospects; and statements about capital allocation and return of capital. These statements reflect beliefs and assumptions that are based on Alcoa Corporation’s perception of historical trends, current conditions, and expected future developments, as well as other factors that management believes are appropriate in the circumstances. Forward-looking statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and changes in circumstances that are difficult to predict. Although Alcoa Corporation believes that the expectations reflected in any forward-looking statements are based on reasonable assumptions, it can give no assurance that these expectations will be attained and it is possible that actual results may differ materially from those indicated by these forward-looking statements due to a variety of risks and uncertainties. Such risks and uncertainties include, but are not limited to: (a) current and potential future impacts of the coronavirus (COVID-19) pandemic on the global economy and our business, financial condition, results of operations, or cash flows and judgments and assumptions used in our estimates; (b) material adverse changes in aluminum industry conditions, including global supply and demand conditions and fluctuations in London Metal Exchange-based prices and premiums, as applicable, for primary aluminum and other products, and fluctuations in indexed-based and spot prices for alumina; (c) deterioration in global economic and financial market conditions generally and which may also affect Alcoa Corporation’s ability to obtain credit or financing upon acceptable terms or at all; (d) unfavorable changes in the markets served by Alcoa Corporation; (e) the impact of changes in foreign currency exchange and tax rates on costs and results; (f) increases in energy or raw material costs or uncertainty of energy supply or raw materials; (g) declines in the discount rates used to measure pension and other postretirement benefit liabilities or lower-than-expected investment returns on pension assets, or unfavorable changes in laws or regulations that govern pension plan funding; (h) the inability to achieve improvement in profitability and margins, cost savings, cash generation, revenue growth, fiscal discipline, sustainability targets, or strengthening of competitiveness and operations anticipated from portfolio actions, operational and productivity improvements, technology advancements, and other initiatives; (i) the inability to realize expected benefits, in each case as planned and by targeted completion dates, from acquisitions, divestitures, restructuring activities, facility closures, curtailments, restarts, expansions, or joint ventures; (j) political, economic, trade, legal, public health and safety, and regulatory risks in the countries in which Alcoa Corporation operates or sells products; (k) labor disputes and/or work stoppages; (l) the outcome of contingencies, including legal and tax proceedings, government or regulatory investigations, and environmental remediation; (m) the impact of cyberattacks and potential information technology or data security breaches; (n) risks associated with long-term debt obligations; and (o) the other risk factors discussed in Part I Item 1A of Alcoa Corporation’s Annual Report on Form 10-K for the fiscal year ended December 31, 2020 and other reports filed by Alcoa Corporation with the U.S. Securities and Exchange Commission. Alcoa Corporation disclaims any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law. Market projections are subject to the risks described above and other risks in the market.

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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.

A global, values-driven aluminum industry leader

Alcoa global operations by business segment



OUR VALUES

Act with Integrity

Operate with Excellence

Care for People

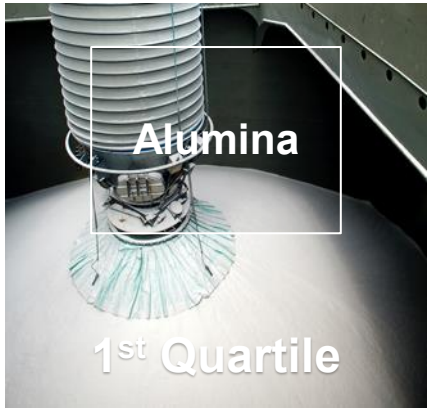


Well positioned across three product segments

Alcoa portfolio position



- World's second largest miner with assets 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



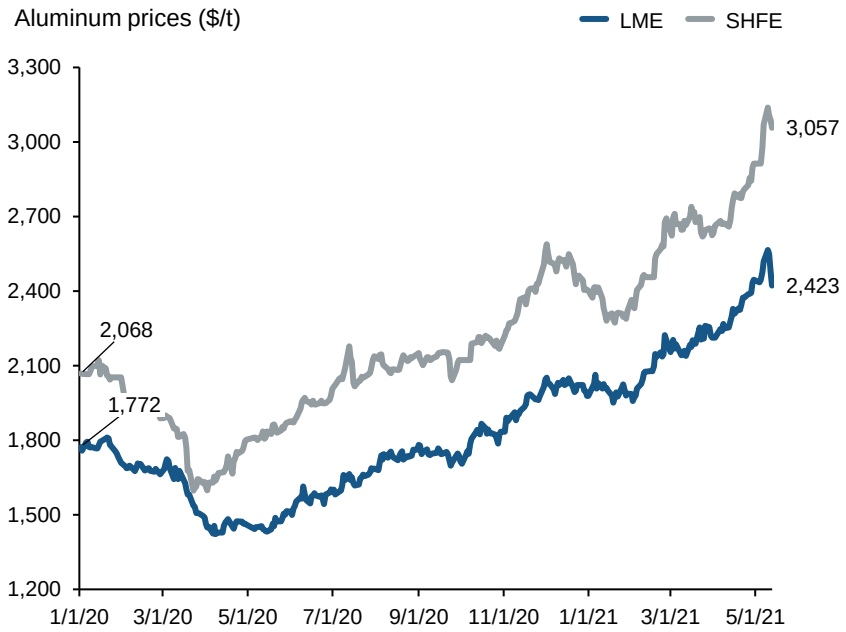
- Driving for 1st quartile through portfolio improvement
- Low CO_2e intensity producer, 78% of production from renewable energy (targeting 85%)
- EcoLum™ (low carbon), EcoDura™ (recycled content) products

Source: CRU and Alcoa analysis

China industry reforms driving positive fundamentals

Key drivers of primary aluminum industry fundamentals

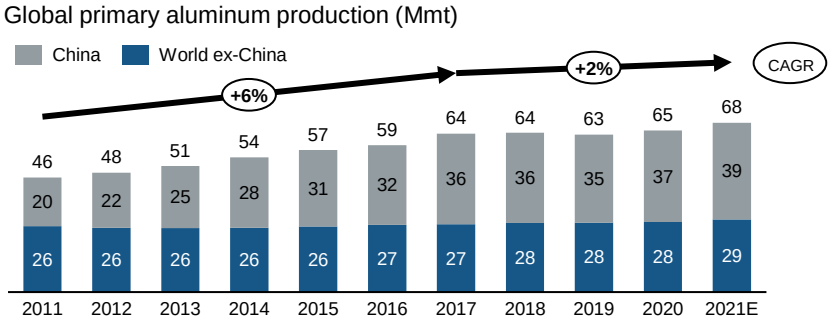
Aluminum pricing improving



Source: CRU, CNIA, Chinese Ministry of Ecology and the Environment.

China production growth slowing

Growth in annual production over the last decade dominated by subsidized production in China



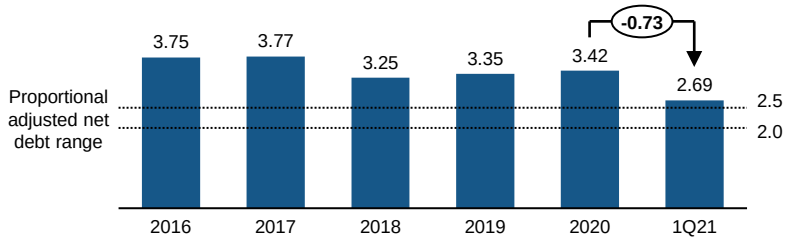
China increasing efforts to reduce CO_2 emissions

- 14th Five Year Plan (2021) targets an 18% reduction in carbon intensity per unit of GDP by 2025
- China Non-Ferrous Metals Industry Association announced in April 2021 draft target to peak aluminum emissions by 2025
- China launched national Emissions Trading Scheme in 2021

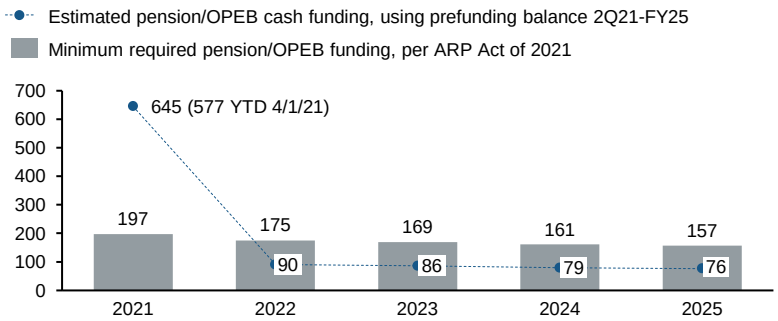
Increased flexibility following recent balance sheet actions

Progress on net debt target and pension funding under capital allocation framework

Proportional adjusted net debt ($B)



Global pension/OPEB funding ($M)



Capital allocation framework

Maintain liquidity throughout the cycle

Capital expenditures to sustain and improve operations

Maximize value creation opportunities

- Reduce proportional adjusted net debt to $2.0B-$2.5B over 1-3 years
- Return excess cash to stockholders
- Transform the portfolio
- Invest in value creating growth projects

Alcoa is built to lead in a more sustainable world

Foundational traits and environmental, social and governance (ESG) advantages

Strong business fundamentals

Commercial

- Industry's most comprehensive low-carbon product portfolio, Sustana™
- Long position in all three segments
- LME-based power contracts; 78% of smelters powered by renewable energy, targeting 85% renewable power

Operational

- Values-based company; strong focus on EH&S
- Fully integrated value chain from mine to metal
- Proven operator, setting recent production records
- Longstanding license to operate in all key markets

Financial

- Targeting first quartile cost position in all segments
- Nearing leverage target that optimizes WACC
- No near-term debt maturities or significant pension/OPEB cash funding requirements

Acknowledged ESG leadership

Environmental

- Clear pathway to achieve 30%/50% CO2e reductions by 2025/2030
- Lowest-carbon alumina system; aiming to be lowest in all segments
- Invented carbon-free smelting technology; commercializing ELYSIS™
- Strong climate, biodiversity, water and impoundment management
- Certified to Aluminum Stewardship Initiative (ASI) standards

Social

- Supporting communities via Alcoa Foundation and volunteer efforts
- Implementing Social Management System
- Alcoa Global Inclusion & Diversity Council
- Policies for Indigenous and Land-Connected Peoples; Human Rights

Governance

- Delaware incorporation; Annual election of directors
- Independent board chair; separate from President / CEO
- Proxy access

Aluminum is an integral element of a low carbon economy

Appendix I:
Strategic long-term sustainability goals

Alcoa

Progressing towards long-term sustainability goals

Alcoa strategic long-term sustainability goals, baseline and progress

Goal	Description	2015 Baseline	2020 Progress
Safety	Zero fatalities and serious injuries (life-threatening, life-altering injury or illness)	5 fatal or serious injuries/illnesses	1 fatal or serious injury/illness
Diversity and inclusion	Attain an inclusive 'everyone culture' that reflects the diversity of the communities in which we operate	N/A	15.6% global women
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	N/A	0.97:1
Bauxite residue	From a 2015 baseline, reduce bauxite residue land requirements per metric ton of alumina produced by 15% by 2030	53.2 m2/kmt Ala	12.8% reduction
Waste	From a 2015 baseline, reduce landfilled waste 15% by 2025 and 25% by 2030	146.6 mt	14.4% reduction
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	3.37 m3/mt	3% reduction
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	7.10 mt CO_2e/mt	14.6% reduction
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	N/A	New indigenous peoples policy

Source: 2020 Alcoa Sustainability Report

Appendix II:
1Q21 Financial and Other Information as presented on April 15, 2021

Alcoa

An excellent quarter on all fronts

Alcoa values, strategic priorities, and key takeaways for 1Q21



OUR VALUES

Act with Integrity

Operate with Excellence

Care for People

1Q21 Takeaways

Maintaining safe and profitable operations

- Continued stable production and shipments while maintaining COVID-19 precautions and strong safety performance
- 1Q21 Net income attributable to Alcoa of $175 million; at $521 million, highest quarterly Adjusted EBITDA excluding special items since record-setting 2018

Delivering on strategy

- Completed sale of Warrick rolling mill for $670 million
- Announced new 5-year power agreements for the Portland smelter, with local electric grid aiming to reach 50% renewables by 2030
- In March, issued $500 million aggregate principal amount of 4.125% senior notes due 2029; in April, redeemed in full the outstanding $750 million 6.75% senior notes due 2024, and funded $500 million into U.S. pension plans

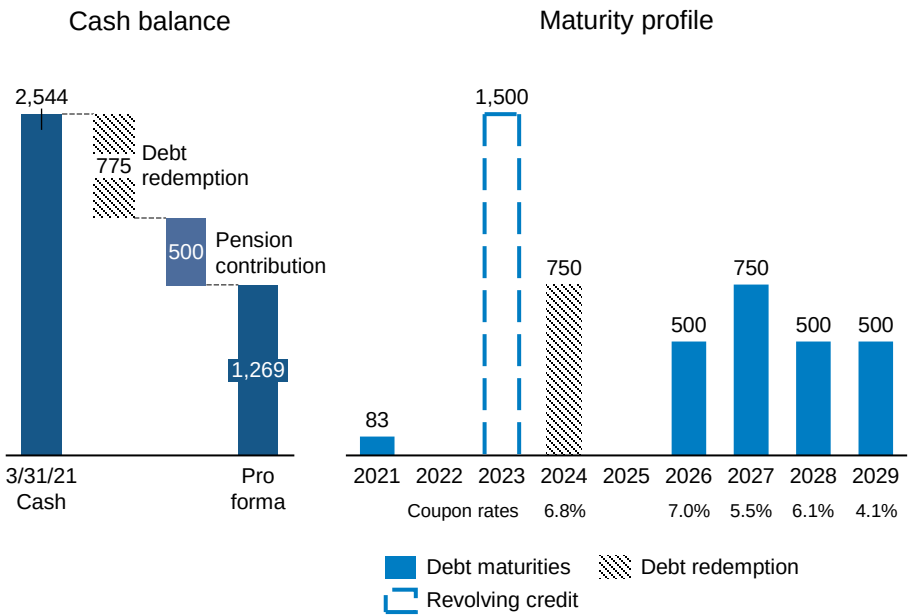
Positioning for a sustainable world

- Expanded Sustana™ product sales driven by increasing low carbon aluminum demand
- Global economic stimulus and China supply reforms driving positive industry fundamentals

Strong cash position and debt maturity profile

Proforma cash, debt maturity profile and liquidity considerations

Cash and debt maturity profile ($M)



Liquidity considerations

In March issued $500 million aggregate principal amount of 4.125% senior notes due 2029

In April, together with cash on hand, used net proceeds to:

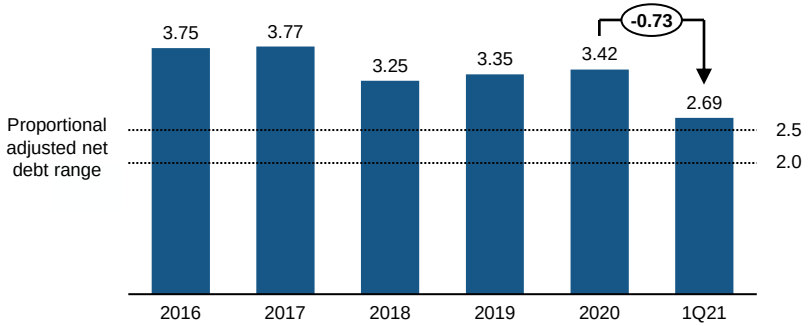
- Redeem all $750 million outstanding of the 2024 notes
- Contribute $500 million to U.S. pension plan

No material debt maturities until late 2026

Near net debt target range; U.S. pension funding flexibility

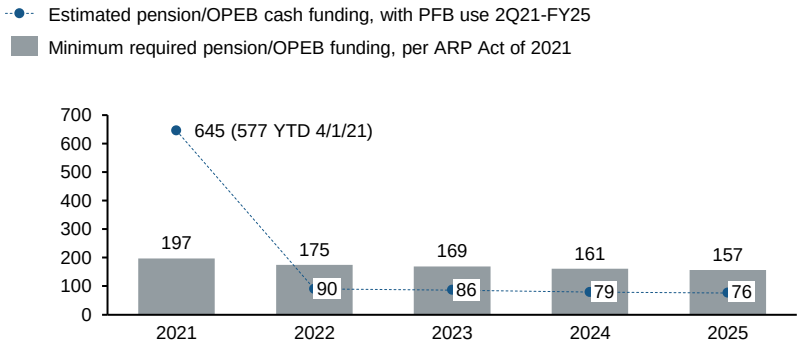
Proportional adjusted net debt and pension/OPEB cash funding as of March 31, 2021

Proportional adjusted net debt ($B)



- We believe that our optimal capital structure and WACC is achieved with a proportional adjusted net debt of $2.0 to $2.5 billion, currently at $2.7 billion
- Further progress on achieving the net debt target can be made through reducing debt, lowering net pension/OPEB liability, or increasing cash on hand

Global pension/OPEB funding ($M)



- U.S. pension cash funding flexibility achieved for foreseeable future
- $500 million funding into U.S. pension plans in April
  - Brought estimated U.S. funded status to >95%
  - U.S. prefunding balance increased to ~$1 billion at April 1

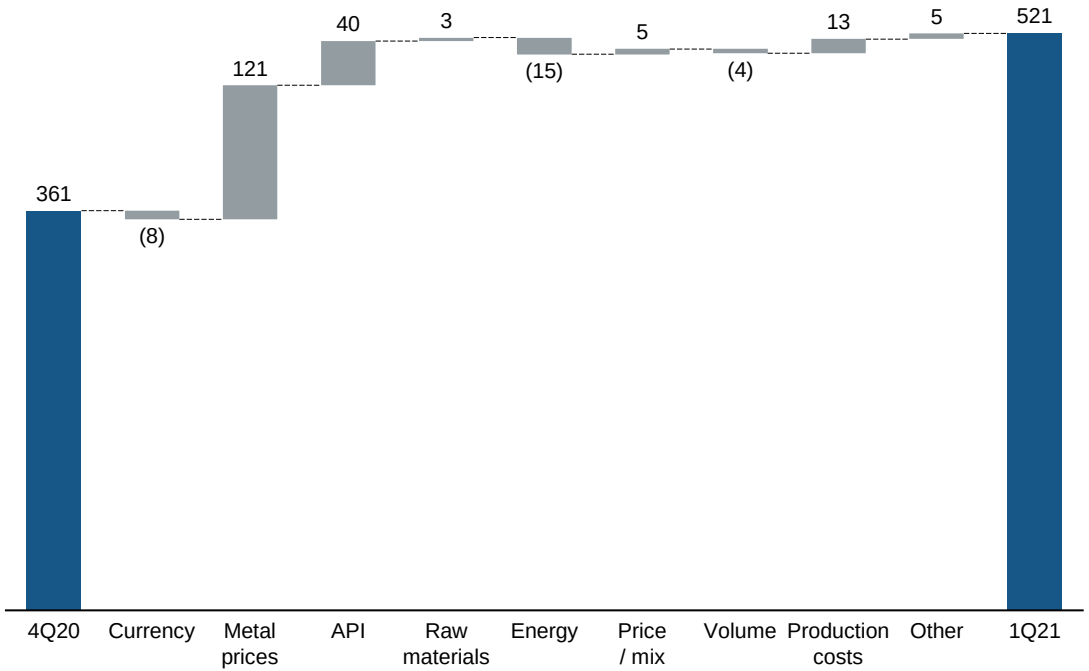
Strong first quarter results

Quarterly income statement highlights

M, Except per share amounts	1Q20	4Q20	1Q21	Prior year change	Sequential change
Income statement highlights					
Revenue	$2,381	$2,392	**$2,870**	$489	$478
Net income (loss) attributable to Alcoa Corporation	$80	$(4)	**$175**	$95	$179
Diluted earnings (loss) per share	$0.43	$(0.02)	**$0.93**	$0.50	$0.95
Adjusted income statement highlights					
Adjusted EBITDA excluding special items	$321	$361	**$521**	$200	$160
Adjusted net (loss) income attributable to Alcoa Corporation	$(42)	$49	**$150**	$192	$101
Adjusted diluted (loss) earnings per share	$(0.23)	$0.26	**$0.79**	$1.02	$0.53

Higher metal, alumina prices drive up Adjusted EBITDA

Adjusted EBITDA excluding special items sequential changes, $M



	4Q20	1Q21	Change
Bauxite	$120	$59	$(61)
Alumina	97	227	130
Aluminum	181	283	102
Segment total	398	569	171
Transformation	(8)	(11)	(3)
Intersegment eliminations	5	(7)	(12)
Other corporate	(34)	(30)	4
Total	$361	$521	$160

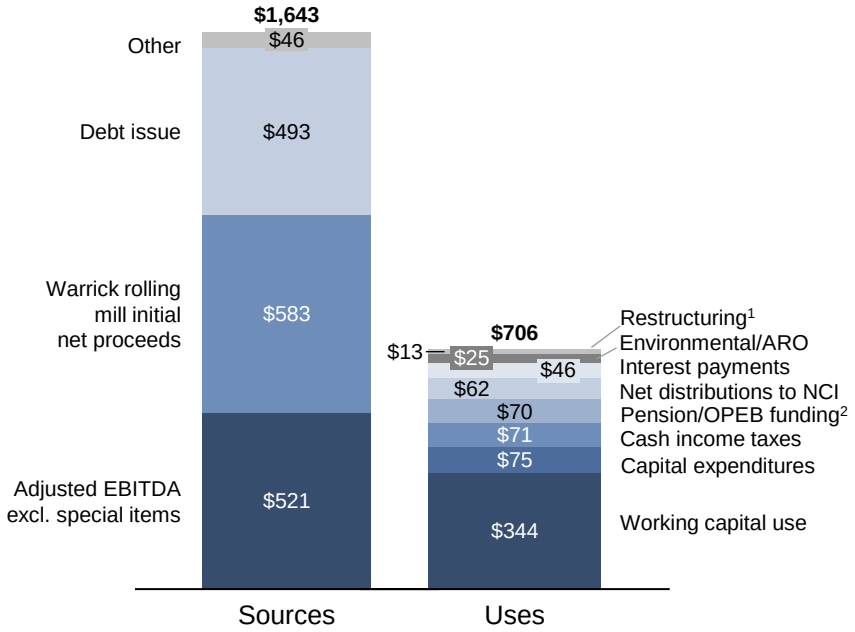
Cash $2.5 billion, before April debt call and pension funding

Key financial metrics and YTD Cash flow information as of March 31, 2021

Key financial metrics

1Q21 Days working capital (DWC)	1Q21 YTD Return on equity
25 Days	**18.5%**
1Q21 Capital expenditures	**Proportional adjusted net debt**
$75M	**$2.7B**
1Q21 Free cash flow less net NCI distributions	**1Q21 Cash balance**
$(131)M	**$2.5B**

YTD Cash flow information, $M



1. Restructuring includes payments related to divestiture of the Avilés and La Coruña facilities and payments related to various programs.
2. Pension/OPEB funding of $70 million is reflected net of $7 million related expenses within Adjusted EBITDA.

2021 Outlook

FY21 Key metrics

Income statement excl. special items impacts

	1Q21 Actual	FY21 Outlook
Bauxite shipments (Mdmt)	12.0	49.0 – 50.0
Alumina shipments (Mmt)	3.6	14.0 – 14.1
Aluminum shipments (Mmt)	0.8	2.7 – 2.8
Transformation (adj. EBITDA impacts)	$(11)M	~ $(60)M
Intersegment elims. (adj. EBITDA impacts)	$(7)M	Varies
Other corporate (adj. EBITDA impacts)	$(30)M	~ $(120)M
Depreciation, depletion and amortization	$182M	~ $675M
Non-operating pension/OPEB expense	$13M	~ $50M
Interest expense	$42M	~ $150M
Operational tax expense[1]	$95M	Varies
Net income of noncontrolling interest	$44M	40% of AWAC NI

Cash flow impacts

	1Q21 Actual	FY21 Outlook
Pension / OPEB required cash funding	$77M	~ $145M
Additional pension funding ($500M April 2021)	$0M	Will vary based on market conditions and cash availability
Early debt repayment ($750M April 2021)	$0M	
Stock repurchases	$0M	
Return-seeking capital expenditures[2]	$4M	~ $50M
Sustaining capital expenditures[2]	$71M	~ $375M
Payment of prior year income taxes[3]	$20M	~ $25M
Current period cash taxes[1]	$51M	Varies
Environmental and ARO payments[4]	$25M	~ $150M
Impact of restructuring and other charges	$13M	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.

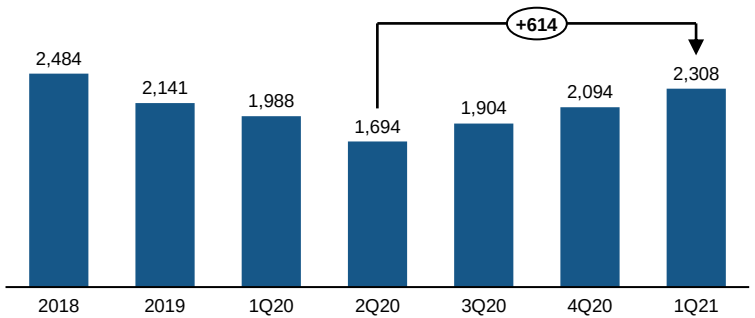
1. Estimate will vary with market conditions and jurisdictional profitability.
2. AWAC portion of FY21 outlook: ~45% of return-seeking capital expenditures and ~55% of sustaining capital expenditures.
3. Net of pending tax refunds.
4. As of March 31, 2021, the environmental remediation reserve balance was $311M and the ARO liability was $724M.

Aluminum market benefiting from economic recovery

Aluminum market dynamics and commercial impacts

Realized price highest since 2018

Realized primary aluminum price ($/mt)



Key market developments:

- Improved primary aluminum and value-add product demand due to macroeconomic recovery and tight scrap market
- Limited supply flexibility and increased freight costs

Alcoa commercial impacts solid

Aluminum

- Value-add product shipments improved ~10% in 1Q21 versus 4Q20
- In FY21, value-add product shipments expected to see double digit growth on strong end markets

Alumina

- 1Q21 pricing higher on improved sentiment versus 4Q20
- Smelter grade alumina shipments expected to increase slightly in FY21

Bauxite

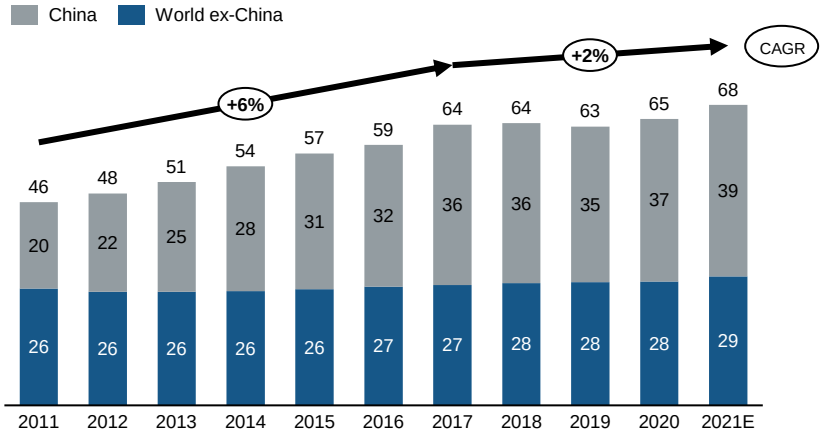
- Lower third-party bauxite revenues in 1Q21 compared to 4Q20 on lower shipments
- Total third-party bauxite shipments to increase slightly in FY21 on higher production

China industry reforms driving positive fundamentals

Key drivers of primary aluminum industry fundamentals

Supply growth slower in last five years

Global primary aluminum production (Mmt)



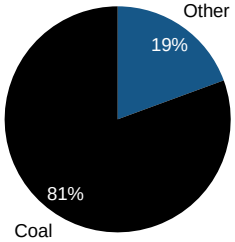
- Growth in annual production over the last decade dominated by subsidized production in China

Source: Alcoa analysis, CRU, CNIA, Chinese Ministry of Ecology and the Environment.

China acts on CO_2e reduction goals

- 14th Five Year Plan (2021) targets an 18% reduction in carbon intensity per unit of GDP by 2025
- Chinese Non-Ferrous Metals Industry Association announced in April 2021 draft target to peak aluminum emissions by 2025
- Provinces (e.g., Inner Mongolia, Gansu) to reduce emissions by not allowing new projects and cancelling preferential power tariffs
- China launched national Emissions Trading Scheme in 2021
  - Power industry first industry in ETS (captive power included)

China primary aluminum production by power source, 2021



Aluminum smelters key to China CO_2e reduction goals

- 5% of Chinese CO_2e emissions from the non-ferrous metals industry, primarily driven by coal-powered aluminum smelters
- Additional investment and/or relocation required for coal-fired smelters to switch to other power sources

World-leading portfolio of low carbon products

Low carbon aluminum products, sales and outlook

Low carbon products and recent sales

Sustana EcoLum ™ Low-Carbon Primary Aluminum

Sustana EcoDura ™ Aluminum with Recycled Content

Sustana EcoSource ™ Smelter-Grade Alumina

ELYSIS

asi Aluminium Stewardship Initiative

March 23, 2021 – Announced agreement to supply a combination of ELYSIS™ zero-carbon aluminum and low-carbon EcoLum™ to RONAL GROUP for the Audi e-tron GT high-performance alloy-wheels

May 2021 – First shipment scheduled of EcoSource™ low carbon alumina to third party

Low carbon aluminum support factors

Growing importance of ESG metrics to end-market consumers, governments and investors

- Consumers: Increasing interest in low carbon products and supply chains
- Governments: Broadening movement to price emissions and decarbonize through regulation
  - Carbon pricing initiatives in place or scheduled for implementation in 64 jurisdictions, including the EU, Canada, and China
  - Net zero greenhouse gas (GHG) emissions targets in place, proposed or in policy documents in 31 countries and the European Union
  - U.S.: Biden Administration rejoined the Paris Agreement
- Investors: Increasing interest in climate-related risks and opportunities
  - Access to capital through special ESG private and public funds; nearly all investors have some level of ESG vetting

Source: World Bank Carbon Pricing Dashboard, Energy & Climate Intelligence Unit

Many key strategic actions completed, others progressing

Achievements of key strategic actions announced in October 2019

Completed
New operating model

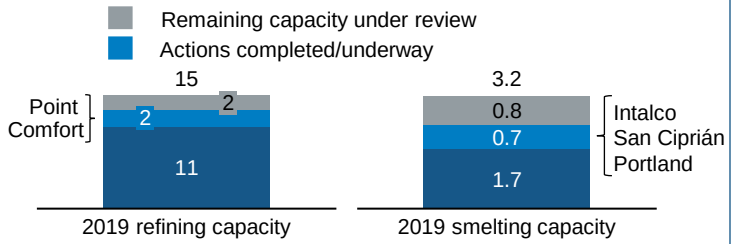
- Redesigned and simplified organizational structure; eliminated business units
- Enhanced operational focus and commercial effectiveness
- Achieved target of $60 million run rate savings

Completed
Non-core asset sales

- Targeted $500 million to $1 billion cash proceeds; ~$850 million cash proceeds achieved
- Gum Springs facility sold in 1Q20
- Warrick rolling mill sold in 1Q21

Ongoing
Asset portfolio review

- Signed new power contracts for Portland smelter
- Resolve San Ciprián smelter status
- Remaining review underway (Mmt)



2Q20 — 1Q21 — 2024

Taking action, delivering results, positioning for future

1Q21 Summary

OUR VALUES

Act with Integrity

Operate with Excellence

Care for People

- **Performed consistently and delivered on strategic actions**
  Implemented key strategic actions to improve operationally and financially
- **Strengthened balance sheet**
  Reduced adjusted net debt, eliminated near-term debt maturities until 2026 and de-risked U.S. pension
- **Positioned for a sustainable world**
  Made progress to transform portfolio to leverage our industry-leading environmental and social standards for a sustainable future

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

1Q21 Summary

1Q21 Financial results and business review

1Q21 Financial results	▪ Net income of $175 million, or $0.93 per share; excluding special items, adjusted net income of $150 million, or $0.79 per share ▪ Adjusted EBITDA excluding special items of $521 million ▪ Cash balance at $2.5 billion on March 31
Business review	▪ Issued $500 million aggregate principal amount of 4.125% senior notes due 2029 ▪ In April, redeemed in full outstanding 6.75% senior notes due 2024 ▪ Funded $500 million into U.S. pension plan on April 1 ▪ Announced new 5-year power agreements for the Portland smelter, with local electric grid aiming to reach 50% renewables by 2030 ▪ Completed sale of Warrick rolling mill for $670 million consideration

Strengthening the Company

Actions to improve Alcoa, 2017 – 2021

2017 – 2020

Operating Safely and Efficiently

- Revitalized safety program; maintained comprehensive COVID-19 preparedness and response plan
- Implemented new operating model and announced $60M annual savings starting in 2Q20
- Modernized labor contracts in Canada, U.S. and Australia

Advancing Financial Longevity

- Froze salaried pension plan as of Jan. 1, 2021; prefunded pension with $500M debt issue in July 2018
- Bolstered liquidity through July 2020 $750M debt issuance; renegotiated revolving credit for more favorable terms
- Reduced administrative locations across the globe; relocated headquarters to Pittsburgh

Optimizing the Portfolio

- Restarted Lake Charles, Portland, Bécancour, and Warrick facilities
- Sold Gum Springs treatment facility; finalized Point Comfort, Rockdale, and Suriname closures; curtailed Intalco
- Divested Avilés, La Coruña, and Portovesme facilities, and minority interest in Saudi rolling mill

Investing in Sustainable Growth

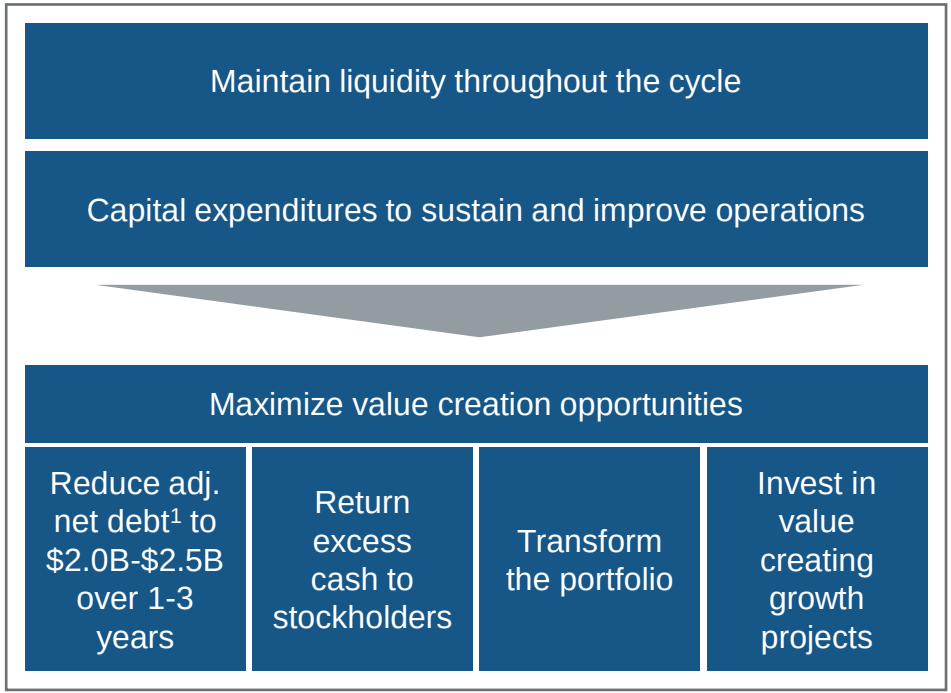
- Set annual, quarterly, location, and segment production records; initiated new smelter creep project
- Launched ELYSIS™ joint venture, joined International Council on Mining and Metals, ASI certified across value chain
- Expanded sales of Sustana™ low carbon products, introduced EcoSource™ world's first low carbon alumina

2021

- Issued $500 million aggregate principal amount of 4.125% senior notes due 2029
- Announced new 5-year power agreements for the Portland smelter, with local electric grid aiming to reach 50% renewables by 2030
- Completed sale of Warrick rolling mill for $670 million consideration
- In April, redeemed in full outstanding $750 million 6.75% senior notes due 2024
- In April, funded $500 million into U.S. pension plan

Capital allocation framework

Capital allocation framework and considerations



- $1 billion target for minimum cash balance
- 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 3½ 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	1Q20	4Q20	1Q21	Prior Year Change	Sequential Change
Realized primary aluminum price ($/mt)	$1,988	$2,094	**$2,308**	$320	$214
Realized alumina price ($/mt)	$299	$268	**$308**	$9	$40
Revenue	$2,381	$2,392	**$2,870**	$489	$478
Cost of goods sold	2,025	1,974	**2,292**	267	318
SG&A and R&D expenses	67	64	**59**	(8)	(5)
Adjusted EBITDA	289	354	**519**	230	165
Depreciation, depletion and amortization	170	170	**182**	12	12
Other (income) expenses, net	(132)	44	**(24)**	108	(68)
Interest expense	30	43	**42**	12	(1)
Restructuring and other charges, net	2	60	**7**	5	(53)
Provision for income taxes	80	20	**93**	13	73
Net income	139	17	**219**	80	202
Less: Net income attributable to noncontrolling interest	59	21	**44**	(15)	23
Net income (loss) attributable to Alcoa Corporation	$80	$(4)	**$175**	$95	$179
Diluted earnings (loss) per share	$0.43	$(0.02)	**$0.93**	$0.50	$0.95
Diluted average shares[1]	186.6	185.9	**188.8**	2.2	2.9

1. For 4Q20, 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	1Q20	4Q20	1Q21	Description of significant 1Q21 special items
Net income (loss) attributable to Alcoa Corporation	$80	$(4)	**$175**	
Diluted earnings (loss) per share	$0.43	($0.02)	**$0.93**	
Special items	$(122)	$53	**$(25)**	
Cost of goods sold	*32*	*3*	***1***	
SG&A and R&D expenses	*-*	*4*	***1***	
Restructuring and other charges, net	*2*	*60*	***7***	OPEB related actions
Other income, net	*(169)*	*(2)*	***(32)***	Gain on Warrick asset sale and mark to market energy contracts
Provision for income taxes	*14*	*(7)*	***(2)***	Discrete tax items
Noncontrolling interest	*(1)*	*(5)*	***-***	
Adjusted net (loss) income attributable to Alcoa Corporation	$(42)	$49	**$150**	
Adjusted diluted (loss) earnings per share	$(0.23)	$0.26	**$0.79**	

Quarterly income statement excluding special items

Quarterly income statement excluding special items

M, Except realized prices and per share amounts	1Q20	4Q20	1Q21	Prior Year Change	Sequential Change
Realized primary aluminum price ($/mt)	$1,988	$2,094	**$2,308**	$320	$214
Realized alumina price ($/mt)	$299	$268	**$308**	$9	$40
Revenue	$2,381	$2,392	**$2,870**	$489	$478
Cost of goods sold	1,993	1,971	**2,291**	298	320
COGS % of Revenue	83.7%	82.4%	**79.8%**	(3.9)% pts.	(2.6)% pts.
SG&A and R&D expenses	67	60	**58**	(9)	(2)
SG&A and R&D % of Revenue	2.8%	2.5%	**2.0%**	(0.8)% pts.	(0.5)% pts.
Adjusted EBITDA	321	361	**521**	200	160
Depreciation, depletion and amortization	170	170	**182**	12	12
Other expenses, net	37	46	**8**	(29)	(38)
Interest expense	30	43	**42**	12	(1)
Provision for income taxes	66	27	**95**	29	68
Operational tax rate	78.5%	25.3%	**32.8%**	(45.7)% pts.	7.5% pts.
Adjusted net income	18	75	**194**	176	119
Less: Adjusted net income attributable to noncontrolling interest	60	26	**44**	(16)	18
Adjusted net (loss) income attributable to Alcoa Corporation	$(42)	$49	**$150**	$192	$101
Adjusted diluted (loss) earnings per share	$(0.23)	$0.26	**$0.79**	$1.02	$0.53
Diluted average shares[1]	185.7	187.7	**188.8**	3.1	1.1

1. For 1Q20, 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.

1Q21 Financial summary

Three months ending March 31, 2021, excluding special items

$M	Bauxite	Alumina	Aluminum[3,4]	Transformation	Intersegment eliminations	Other corporate	Alcoa Corporation
Total revenue	$243	$1,124	$2,049	$4	$(551)	$1	$2,870
Third-party revenue	$58	$760	$2,047	$4	-	$1	$2,870
Adjusted EBITDA[1]	$59	$227	$283	$(11)	$(7)	$(30)	$521
Adjusted EBITDA margin %	*24.3%*	*20.2%*	*13.8%*				*18.2%*
Depreciation, depletion and amortization	$57	$46	$73	-	-	$6	$182
Other expenses (income), net[2]	-	$5	$(13)	-	-	$16	$8
Interest expense							$42
Provision for income taxes							$95
Adjusted net income							$194
Net income attributable to noncontrolling interest							$44
Adjusted net income attributable to Alcoa Corporation							$150

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, $331M and $25M, respectively.
4. Third-party energy sales volume, revenue and adjusted EBITDA in Brazil were 762GWh, $29M and $18M, respectively.

1Q21 Adjusted EBITDA drivers by segment

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

Segment	Adj. EBITDA 4Q20	Currency	Metal prices	API	Raw materials	Energy	Price/mix	Volume	Production costs	Other	Adj. EBITDA 1Q21
Bauxite	$120	0	0	0	0	(1)	(2)	1	0	(59)	$59
Alumina	$97	2	0	76	8	(13)	4	(4)	9	48	$227
Aluminum	$181	(10)	120	(19)	(5)	(1)	3	(1)	4	11	$283
Segment Total	**$398**	**(8)**	**120**	**57**	**3**	**(15)**	**5**	**(4)**	**13**	**0**	**$569**

Aluminum value chain

1Q21 Alcoa product shipments by segment



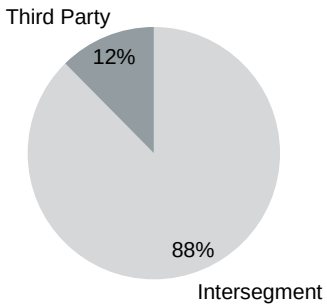
12.0 Mdmt shipments

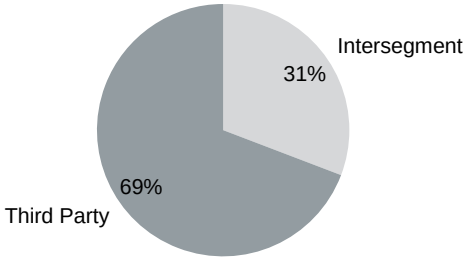


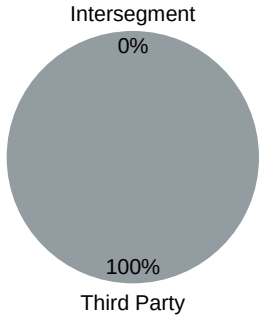
3.6 Mmt shipments



0.8 Mmt shipments



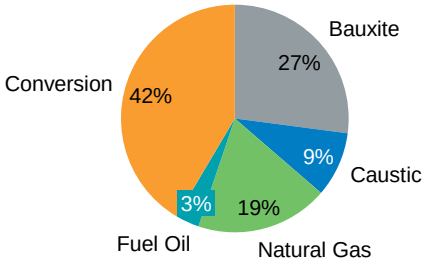




Composition of alumina and aluminum production costs

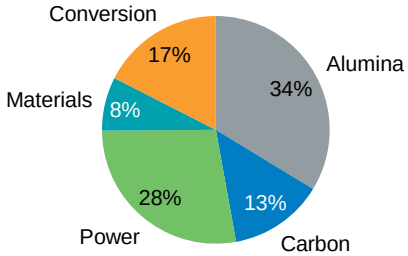
Alcoa 1Q21 production cash costs

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 to 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 0.77[1]	BRL + 0.10 5.46[1]	CAD + 0.01 1.27[1]	EUR + 0.01 1.21[1]	ISK + 10 128.02[1]	NOK + 0.10 8.51[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 1Q21 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
3/31/20 currencies	0.61	5.16	1.42	1.11	139.54	10.57	
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)
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 sequential impact	(5.9)	(5.7)	(2.7)	2.9	(1.5)	3.2	(9.7)
3/31/21 currencies	**0.76**	**5.76**	**1.26**	**1.17**	**126.68**	**8.56**	
1Q21 revaluation	**4.5**	**4.6**	**(0.3)**	**0.3**	**(0.8)**	**(2.0)**	**6.2**
1Q21 revaluation sequential impact	**15.1**	**6.7**	**3.3**	**(1.4)**	**(0.7)**	**(5.3)**	**17.7**

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	
1Q20 currency avg.	0.66	4.44	1.34	1.10	127.78	9.44	
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)
4Q20 currency avg.	0.73	5.40	1.31	1.19	134.72	9.05	
4Q20 currency impact	(8.6)	0.1	(1.5)	(2.3)	0.7	(0.4)	(11.9)
1Q21 currency avg.	0.77	5.46	1.27	1.21	128.02	8.51	
1Q21 currency impact	**(22.1)**	**1.2**	**(1.7)**	**(1.0)**	**(0.7)**	**(1.7)**	**(25.9)**
Total 1Q21 EBITDA currency impact[1]	**(7.0)**	**7.9**	**1.6**	**(2.4)**	**(1.4)**	**(7.0)**	**(8.3)**

Totals may not tie due to rounding

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

Additional business considerations

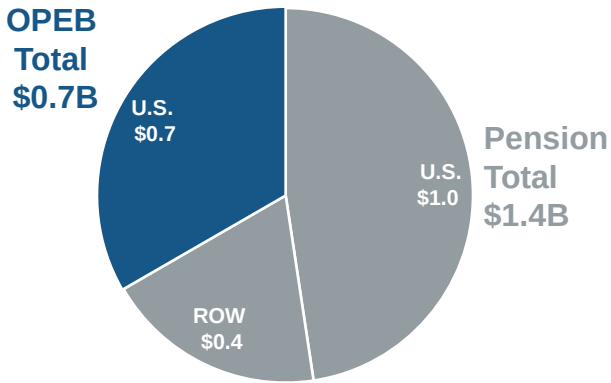
Items expected to impact Adjusted EBITDA for 2Q21

- Sequentially, Adjusted EBITDA in the Bauxite segment is expected to be in line with 1Q21
- The Alumina segment expects one quarter of $20 million higher seasonal maintenance and $5 million higher energy costs
- In the Aluminum segment:
  - Warrick rolling mill sale sequential impact ~$15 million
  - Alumina costs are estimated to be flat sequentially
  - Based on current market prices, hydro sales decline ~$10 million on lower price and smelter energy costs $5 million higher
  - One quarter of higher seasonal maintenance of $5 million
- Due to volatility in quarter end exchange rates, 1Q21 Adjusted EBITDA included a favorable balance sheet revaluation impact of $6 million ($18 million favorable sequentially compared to 4Q20); 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; consider intersegment eliminations as component of minority interest calculation
- In addition, the Company expects 2Q21 operational tax expense to approximate ~$90 million based on recent pricing

Pension and OPEB summary

Net pension and OPEB liability and financial impacts

Net liability as of March 31, 2021[1]



Pension funding status as of December 31, 2020

- U.S. ERISA ~81% (~114% including pre-funding balance)
- GAAP Worldwide ~78%

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	50
Special items[2] (curtailment/settlement)	9
Total expense impact	**$84**

Cash flow impact	2021
Minimum required pension funding[3]	$80
Additional pension funding	500
OPEB payments	65
Total cash impact	**$645**

1. The impact on the combined pension and OPEB liability of a 25 basis point change in the weighted average discount rate is approximately $205 million.
2. U.S. hourly OPEB plan was remeasured as of March 31, 2021 due to the sale of the Warrick rolling mill.
3. 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. Reflects estimated impact of the pension relief provisions under the ARP Act, subject to change pending formal IRS guidance.

Investments summary

Investments listing and income statement location

Investee	Country	Nature of Investment[4]	Ownership Interest	Carrying Value as of March 31, 2021	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™				***$570M***	***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				***$485M***	***COGS***
Total investments				**$1,055M**	

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 sustainability goals, baseline and progress

Goal	Description	2015 Baseline	2020 Progress
Safety	Zero fatalities and serious injuries (life-threatening, life-altering injury or illness)	5 fatal or serious injuries/illnesses	1 fatal or serious injury/illness
Diversity and inclusion	Attain an inclusive 'everyone culture' that reflects the diversity of the communities in which we operate	N/A	15.6% global women
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	N/A	0.97:1
Bauxite residue	From a 2015 baseline, reduce bauxite residue land requirements per metric ton of alumina produced by 15% by 2030	53.2 m2/kmt Ala	12.8% reduction
Waste	From a 2015 baseline, reduce landfilled waste 15% by 2025 and 25% by 2030	146.6 mt	14.4% reduction
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	3.37 m3/mt	3% reduction
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	7.10 mt CO_2e/mt	14.6% reduction
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	N/A	New indigenous peoples policy

Rigorous standard in place to manage tailings and residue

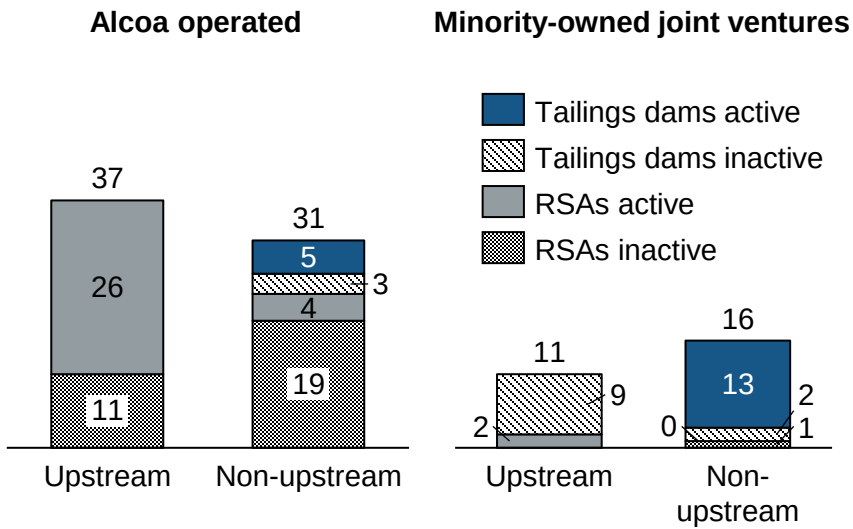
Tailings and residue impoundments management process and inventory

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 March 31, 2021

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	Canada	310	-
Deschambault	Canada	260	-
Fjarðaál	Iceland	344	-
Lista	Norway	94	-
Mosjøen	Norway	188	-
San Ciprián	Spain	228	-
Intalco	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.

Valuation framework

Valuation framework key considerations

				LTM ending 3/31/2021 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	$434M
	+	Alumina		$531M
	+	Aluminum	Economic value using market multiple of: i. Smelters, casthouses, rolling mill, and energy assets ii. Smelters and casthouses restart optionality	$546M
	-	Non-segment expenses (income)	Economic value using market multiple of: i. Net corporate expenses and Transformation	$160M
	=	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 $3B ($3B, >95% Alcoa), pension & OPEB net liabilities of $2.1B ($2.1B, >95% Alcoa; U.S. contributions not tax deductible), environmental & ARO liabilities of $0.8B ($1B, ~75% Alcoa)	
	+	Cash & equity investments[1]	Cash position of $2.4B ($2.5B, ~95% Alcoa) plus carrying value of investments in the Ma´aden joint venture and ELYSIS™ of $0.5B ($0.6B, ~85% Alcoa)	
	=	Equity value		

1. Dollar amounts reflect Alcoa Corporation's consolidated balance sheet values as of March 31, 2021. The "Alcoa" percentages exclude amounts attributable to Alcoa Corporation's partner in the AWAC JV.

Adjusted EBITDA reconciliation

$M	1Q20	2Q20	3Q20	4Q20	FY20	1Q21
Net income (loss) attributable to Alcoa	**$80**	**$(197)**	**$(49)**	**$(4)**	**$(170)**	**$175**
Add:						
Net income attributable to noncontrolling interest	59	47	29	21	156	44
Provision for income taxes	80	45	42	20	187	93
Other (income) expenses, net	(132)	51	45	44	8	(24)
Interest expense	30	32	41	43	146	42
Restructuring and other charges, net	2	37	5	60	104	7
Depreciation, depletion and amortization	170	152	161	170	653	182
Adjusted EBITDA	**289**	**167**	**274**	**354**	**1,084**	**519**
Special items before tax and noncontrolling interest	32	18	10	7	67	2
Adjusted EBITDA excl. special items	**$321**	**$185**	**$284**	**$361**	**$1,151**	**$521**

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	1Q20	2Q20	3Q20	4Q20	FY20	1Q21
Provision for income taxes	$80	$45	$42	$20	$187	$93
Tax on special items	8	1	3	1	13	-
Discrete tax items	(1)	-	2	25	26	2
Interim tax impacts[1]	(21)	(142)	182	(19)	-	-
Operational tax provision	**$66**	**($96)**	**$229**	**$27**	**$226**	**$95**
Operational tax rate	**78.5%**	**178.3%**	**540.6%**	**25.3%**	**129.7%**	**32.8%**

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; and
- Discrete tax items (generally unusual or infrequently occurring items, changes in law, items associated with uncertain tax positions, or effects of measurement-period adjustments).

[1] Beginning in the first quarter of 2021, the Company revised the way our operational tax provision is calculated on an interim basis. The operational tax provision now includes the interim tax impacts required under GAAP, which have the effect of smoothing tax provisioned across quarters, that had 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	1Q20	2Q20	3Q20	4Q20	1Q21
Cash (used for) provided from operations	$(90)	$288	$158	$38	$6
Capital expenditures	(91)	(77)	(74)	(111)	(75)
Free cash flow	**(181)**	**211**	**84**	**(73)**	**(69)**
Contributions from noncontrolling interest	-	16	8	-	-
Distributions to noncontrolling interest	(31)	(75)	(46)	(55)	(62)
Free cash flow less net distributions to noncontrolling interest	**$(212)**	**$152**	**$46**	**$(128)**	**$(131)**

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

	1Q20			4Q20			1Q21		
$M	**Cons.**	**NCI**	**Alcoa Prop.**	**Cons.**	**NCI**	**Alcoa Prop.**	**Cons.**	**NCI**	**Alcoa Prop.**
Short-term borrowings	$-	$-	$-	$77	$31	$46	$77	$31	$46
Long-term debt due within one year	1	-	1	2	-	2	745	-	745
Long-term debt, less amount due within one year	1,801	31	1,770	2,463	-	2,463	2,214	-	2,214
Total debt	1,802	31	1,771	2,542	31	2,511	3,036	31	3,005
Less: Cash and cash equivalents	829	139	690	1,607	176	1,431	2,544	134	2,410
Net debt	**973**	**(108)**	**1,081**	**935**	**(145)**	**1,080**	**492**	**(103)**	**595**
Plus: Net pension / OPEB liability	2,265	40	2,225	2,395[1]	52	2,343[1]	2,139	49	2,090
Adjusted net debt	**$3,238**	**$(68)**	**$3,306**	**$3,330**	**$(93)**	**$3,423**	**$2,631**	**$(54)**	**$2,685**

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. Recorded in Liabilities held for sale.

Days Working Capital

$M	1Q20	2Q20	3Q20	4Q20	1Q21
Receivables from customers	$570	$402	$516	$471	$587
Add: Inventories	1,509	1,419	1,398	1,398	1,417
Add: Net DWC working capital held for sale[2]	–	–	–	129	-
Less: Accounts payable, trade	1,276	1,253	1,360	1,403	1,284
DWC working capital	$803	$568	$554	$595	$720
Sales	$2,381	$2,148	$2,365	$2,392	$2,551[3]
Number of days in the quarter	91	91	92	92	90
Days Working Capital[1]	**31**	**24**	**22**	**23**	**25**

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. Recorded in Assets and Liabilities held for sale as of December 31, 2020.
3. Excludes Warrick rolling mill sales in 1Q21.

Annualized Return on Equity (ROE)

Reconciliation and calculation information

$M	1Q20	1Q21
Numerator:		
Net income attributable to Alcoa Corporation	$80	$175
Add: Special items[1]	(122)	(25)
ROE Adjusted Net (loss) income YTD	**$(42)**	**$150**
ROE Adj. Net income multiplied by four	**$(168)**	**$600**
Denominator[2]:		
Total assets	$13,651	$14,931
Less: Total Liabilities	7,840	10,058
Less: Noncontrolling Interest	1,536	1,625
Shareholders' Equity	**$4,275**	**$3,248**
ROE	**-3.9%**	**18.5%**

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

$$\text{1Q20 YTD ROE \%} = \frac{(\$80 - \$122) \times 4}{(\$13{,}651 - \$7{,}840 - \$1{,}536)} \times 100 = -3.9\%$$

$$\text{1Q21 YTD ROE \%} = \frac{(\$175 - \$25) \times 4}{(\$14{,}931 - \$10{,}058 - \$1{,}625)} \times 100 = 18.5\%$$

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

Annualized Return on Capital (ROC)

Reconciliation and calculation information

$M	1Q20	1Q21
Numerator:		
Net income attributable to Alcoa Corporation	$80	$175
Add: Net income attributable to noncontrolling interest	59	44
Add: Provision for income taxes	80	93
Profit before taxes (PBT)	**219**	**312**
Add: Interest expense	30	42
Less: Interest income	3	1
Add: Special items[1]	(135)	(23)
ROC earnings before taxes	**$111**	**$330**
ROC earnings before taxes multiplied by four	**$444**	**$1,320**
ROC earnings after fixed tax rate of 35%	**$289**	**$858**
Denominator[2]:		
Total assets	$13,651	$14,931
Less: Cash, cash equivalents, restricted cash and short-term investments	832	2,547
Less: Current liabilities	2,223	3,221
Add: Long-term debt due within one year and short-term borrowings	1	822
Capital Base[2]	**$10,597**	**$9,985**
ROC	**2.7%**	**8.6%**

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

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

$$\text{1Q21 YTD ROC \%} = \frac{(\$312 + \$41 - \$23) \times 4) \times (1 - 0.35)}{\$14{,}931 - \$2{,}547 - \$3{,}221 + \$822} \times 100 = 8.6\%$$

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

Rolling results reconciliation

Rolling as reported versus components retained

$M, except shipment data in kmt	4Q19	1Q20	2Q20	3Q20	4Q20	FY20	1Q21
Rolling third-party sales, as reported	$295	$279	$277	$294	$297	$1,147	$331
Less divested third-party sales	(287)	(272)	(271)	(285)	(287)	(1,115)	(320)
Plus third-party metal sales (proforma)	76	76	65	73	81	295	90
Plus third-party power sales (proforma)	7	7	7	7	7	27	8
Retained third-party sales	**$91**	**$89**	**$78**	**$89**	**$98**	**$354**	**$109**
Rolling Adjusted EBITDA, as reported	$23	$(0)	$2	$29	21	$52	$25
Less divested Adjusted EBITDA (proforma)	(27)	(18)	(20)	(32)	(20)	(90)	(14)
Retained Adjusted EBITDA	**$(4)**	**$(18)**	**$(18)**	**$(3)**	**$1**	**$(38)**	**$11**
Rolling net income (loss), as reported	$(4)	$(25)	$(19)	$7	$(4)	$(41)	$1
Less divested net (income) loss (proforma) [1]	(18)	(4)	(9)	(21)	(7)	(41)	0
Retained net (loss) income	**$(22)**	**$(29)**	**$(28)**	**$(15)**	**$(10)**	**$(82)**	**$1**
Rolling shipments, as reported (kmt)	77	73	79	79	75	306	82
Less divested shipments (proforma)	(41)	(35)	(41)	(42)	(38)	(156)	(45)
Retained shipments (kmt)	**36**	**38**	**38**	**37**	**37**	**150**	**37**

1. Does not include the estimated gain on sale or retention of non-service pension costs.

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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