The Element of **Possibility**™

4th Quarter Earnings

Alcoa Corporation

January 15, 2020

Alcoa

Important information

Cautionary statement regarding forward-looking statements

This presentation contains statements that relate to future events and expectations and as such constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those containing such words as “anticipates,” “believes,” “could,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “outlook,” “plans,” “projects,” “seeks,” “sees,” “should,” “targets,” “will,” “would,” or other words of similar meaning. All statements by Alcoa Corporation that reflect expectations, assumptions or projections about the future, other than statements of historical fact, are forward-looking statements, including, without limitation, forecasts concerning global demand growth for bauxite, alumina, and aluminum, and supply/demand balances; statements, projections or forecasts of future or targeted financial results or operating performance; statements about strategies, outlook, and business and financial prospects; and statements about return of capital. These statements reflect beliefs and assumptions that are based on Alcoa Corporation’s perception of historical trends, current conditions, and expected future developments, as well as other factors that management believes are appropriate in the circumstances. Forward-looking statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and changes in circumstances that are difficult to predict. Although Alcoa Corporation believes that the expectations reflected in any forward-looking statements are based on reasonable assumptions, it can give no assurance that these expectations will be attained and it is possible that actual results may differ materially from those indicated by these forward-looking statements due to a variety of risks and uncertainties. Such risks and uncertainties include, but are not limited to: (a) 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; (b) 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; (c) unfavorable changes in the markets served by Alcoa Corporation; (d) the impact of changes in foreign currency exchange and tax rates on costs and results; (e) increases in energy costs or uncertainty of energy supply; (f) declines in the discount rates used to measure pension liabilities or lower-than-expected investment returns on pension assets, or unfavorable changes in laws or regulations that govern pension plan funding; (g) the inability to achieve improvement in profitability and margins, cost savings, cash generation, revenue growth, fiscal discipline, or strengthening of competitiveness and operations anticipated from operational and productivity improvements, cash sustainability, technology advancements, and other initiatives; (h) the inability to realize expected benefits, in each case as planned and by targeted completion dates, from acquisitions, divestitures, facility closures, curtailments, restarts, expansions, or joint ventures; (i) political, economic, trade, legal, and regulatory risks in the countries in which Alcoa Corporation operates or sells products; (j) labor disputes and/or and work stoppages; (k) the outcome of contingencies, including legal proceedings, government or regulatory investigations, and environmental remediation; (l) the impact of cyberattacks and potential information technology or data security breaches; and (m) the other risk factors discussed in Item 1A of Alcoa Corporation’s Form 10-K for the fiscal year ended December 31, 2018 and other reports filed by Alcoa Corporation with the U.S. Securities and Exchange Commission (SEC). Alcoa Corporation disclaims any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law. Market projections are subject to the risks described above and other risks in the market.

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.

Financial presentation information

As of January 1, 2019, the Company changed its accounting method for valuing certain inventories from last-in, first-out (LIFO) to average cost. The effects of the change in accounting principle have been retrospectively applied to all prior periods presented. See Exhibit 99.2 to the Company's Form 8-K filed with the Securities and Exchange Commission (SEC) on April 17, 2019, which illustrates the effects of the change in accounting principle to 2018 interim and full year financial information.

Glossary of terms

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

Roy Harvey

President and Chief Executive Officer

Alcoa

4Q19: Comprehensive progress continues

4Q19 Financial results and business review

4Q19 Financial results	▪ Net loss of $303 million, or $1.63 per share; excluding special items, adjusted net loss of $57 million, or $0.31 per share ▪ Adjusted EBITDA excluding special items of $346 million ▪ Cash balance of $879 million on December 31, 2019
Business review	▪ No serious injuries in 4Q19 ▪ Quarterly production records at Juruti mine and Wagerup refinery ▪ Ratified AWU contract covering ~1,500 employees at Australian locations ▪ Joined International Council on Mining and Metals ▪ Announced Point Comfort, Texas alumina refinery closure ▪ Finalized Suriname closure agreements; transferred dam to government ▪ ELYSIS™ shipped first carbon-free aluminum to Apple

FY19: Continued to strengthen, improve the company

FY19 Financial results and business review

FY19 Financial results	▪ Net loss of $1.1 billion, or $6.07 per share; excluding special items, adjusted net loss of $0.2 billion, or $0.99 per share ▪ Adjusted EBITDA excluding special items of $1.7 billion ▪ Net pension/OPEB liability of $2.4 billion in 2019
Business review	▪ Three serious injuries in FY19; no fatalities ▪ Annual production records for Bauxite and Alumina portfolios ▪ Modernized labor contracts in Canada, United States and Australia ▪ Bécancour restart began in July, continues on schedule ▪ Divested Avilés and La Coruña smelters, and Saudi rolling mill ▪ Announced new operating model, asset sales, and portfolio review ▪ Aluminum market ends 2019 in deficit, slight surplus expected in 2020

William Oplinger

Executive Vice President and Chief Financial Officer

Alcoa

Revenue off 5% as volume gain partially offsets price slip

Quarterly income statement

M, Except realized prices and per share amounts	4Q18	3Q19	4Q19	Prior Year Change	Sequential Change
Realized primary aluminum price ($/mt)	$2,358	$2,138	**$2,042**	$(316)	$(96)
Realized alumina price ($/mt)	$479	$324	**$291**	$(188)	$(33)
Revenue	$3,344	$2,567	**$2,436**	$(908)	$(131)
Cost of goods sold	2,513	2,120	**2,048**	(465)	(72)
SG&A and R&D expenses	66	73	**68**	2	(5)
Adjusted EBITDA	765	374	**320**	(445)	(54)
Depreciation, depletion and amortization	174	184	**183**	9	(1)
Other expenses, net	32	27	**44**	12	17
Interest expense	31	30	**31**	-	1
Restructuring and other charges, net	138	185	**363**	225	178
Provision for income taxes	163	95	**54**	(109)	(41)
Net income (loss)	227	(147)	**(355)**	(582)	(208)
Less: Net income (loss) attributable to noncontrolling interest	176	74	**(52)**	(228)	(126)
Net income (loss) attributable to Alcoa Corporation	$51	$(221)	**$(303)**	$(354)	$(82)
Diluted earnings (loss) per share	$0.27	$(1.19)	**$(1.63)**	$(1.90)	($0.44)
Diluted shares outstanding[1]	188.2	185.6	**185.6**	(2.6)	-

1. For 3Q19 and 4Q19, share equivalents related to employee stock-based compensation were excluded from Diluted shares outstanding as impact was anti-dilutive given a net loss.

Special items total $246M, primarily Point Comfort closure

Breakdown of special items by income statement classification – gross basis

M, Except per share amounts	**4Q18**	**3Q19**	**4Q19**	**Description of significant 4Q19 special items**
Net income (loss) attributable to Alcoa Corporation	$51	$(221)	**$(303)**	
Diluted earnings (loss) per share	$0.27	$(1.19)	**$(1.63)**	
Special items	$82	$139	**$246**	
Cost of goods sold	*4*	*14*	***26***	*Bécancour restart costs*
SG&A and R&D expenses	*1*	*-*	***-***	
Restructuring and other charges, net	*138*	*185*	***363***	*Point Comfort refinery closure; pension/OPEB actions*
Other expenses (income), net	*(3)*	*(7)*	***(1)***	
Provision for income taxes	*(40)*	*(44)*	***(32)***	
Noncontrolling interest	*(18)*	*(9)*	***(110)***	
Adjusted net income (loss) attributable to Alcoa Corporation	$133	$(82)	**$(57)**	
Adjusted diluted earnings (loss) per share	$0.70	$(0.44)	**$(0.31)**	

Adjusted net loss $57M, adjusted loss per share $0.31

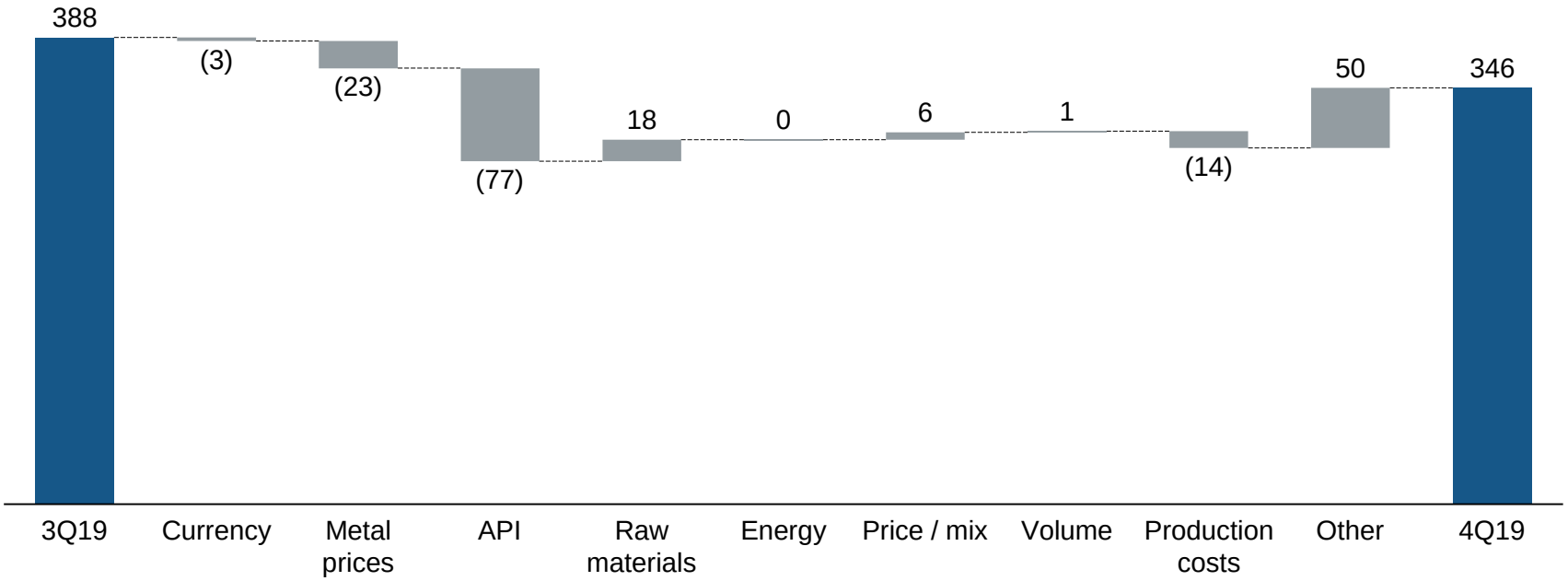
Quarterly income statement excluding special items

M, Except realized prices and per share amounts	4Q18	3Q19	4Q19	Prior Year Change	Sequential Change
Realized primary aluminum price ($/mt)	$2,358	$2,138	**$2,042**	$(316)	$(96)
Realized alumina price ($/mt)	$479	$324	**$291**	$(188)	$(33)
Revenue	$3,344	$2,567	**$2,436**	$(908)	$(131)
Cost of goods sold	2,509	2,106	**2,022**	(487)	(84)
COGS % of Revenue	75.0%	82.0%	**83.0%**	8.0% pts.	1.0% pts.
SG&A and R&D expenses	65	73	**68**	3	(5)
SG&A and R&D % of Revenue	1.9%	2.8%	**2.8%**	0.9% pts.	0.0% pts.
Adjusted EBITDA	770	388	**346**	(424)	(42)
Depreciation, depletion and amortization	174	184	**183**	9	(1)
Other expenses, net	35	34	**45**	10	11
Interest expense	31	30	**31**	-	1
Provision for income taxes	203	139	**86**	(117)	(53)
Operational tax rate	38.4%	99.5%	**99.5%**	61.1% pts.	0.0% pts.
Adjusted net income	327	1	**1**	(326)	-
Less: Adjusted net income attributable to noncontrolling interest	194	83	**58**	(136)	(25)
Adjusted net income (loss) attributable to Alcoa Corporation	$133	$(82)	**$(57)**	$(190)	$25
Adjusted diluted earnings (loss) per share	$0.70	$(0.44)	**$(0.31)**	$(1.01)	$0.13
Diluted shares outstanding[1]	188.2	185.6	**185.6**	(2.6)	-

1. For 3Q19 and 4Q19, share equivalents related to employee stock-based compensation were excluded from Diluted shares outstanding as impact was anti-dilutive given a net loss.

Alumina and metal prices drive EBITDA change

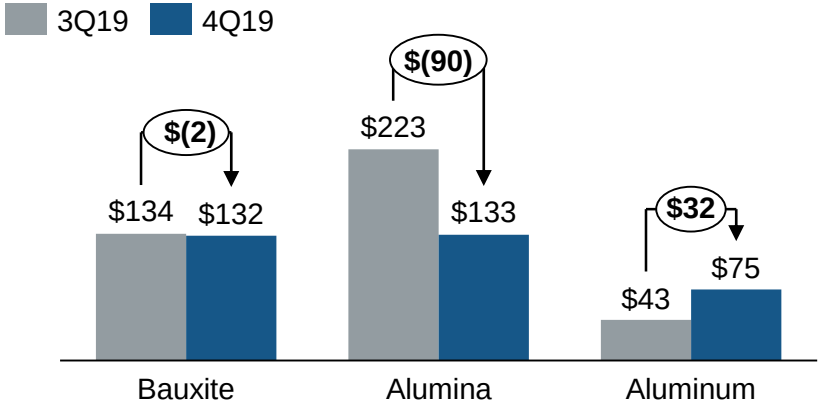
Adjusted EBITDA excluding special items sequential changes, $M



Bauxite stable; market impacts Alumina; Aluminum gains

Adjusted EBITDA excluding special items breakdown

Segment information, $M



	Bauxite	Alumina	Aluminum
4Q19 Segment Adj. EBITDA Margin %	42.4%	12.7%	4.6%
Change vs. 3Q19, Margin %	+4.2% pts.	-6.9% pts.	+2.0% pts.

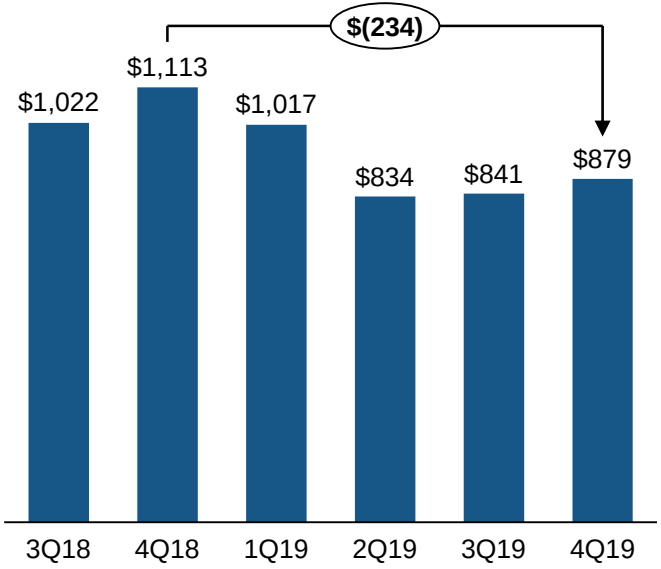
Total Adjusted EBITDA information, $M

	3Q19	4Q19	Change
Segment total	$400	$340	$(60)
Transformation	(6)	(6)	-
Intersegment eliminations	25	40	15
Other corporate	(31)	(28)	3
Total Adjusted EBITDA	$388	$346	$(42)

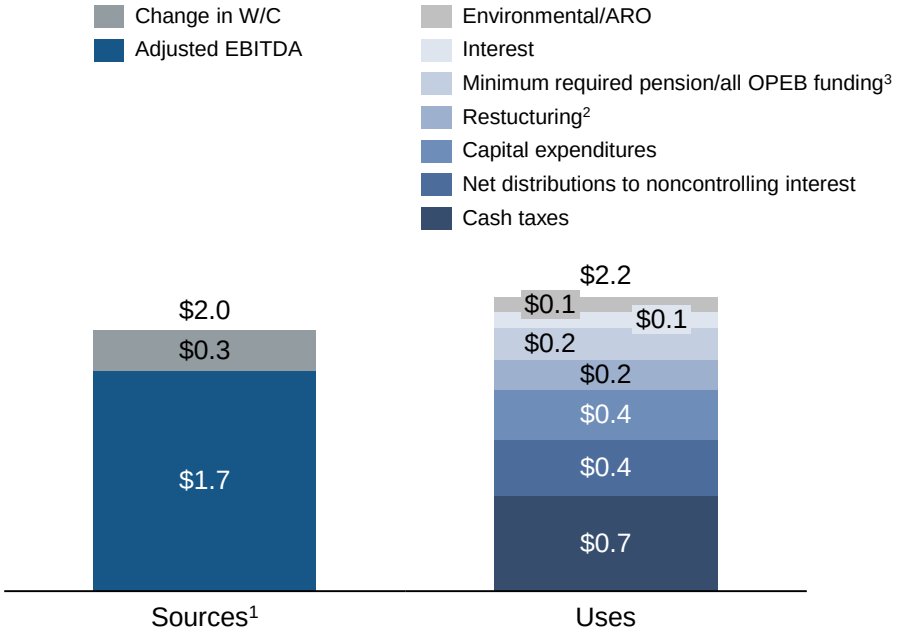
Year-end cash balance at $0.9 billion, stable

Quarterly cash comparison and cash flow information

Quarter ending cash balance, $M



2019 Cash flow information, $B



1. Sources defined as Adjusted EBITDA excluding special items plus changes in Working Capital (Accounts receivable, Inventories, Accounts payable)
2. Restructuring includes payments related to divestiture of Saudi rolling mill and the Avilés and La Coruña facilities and severance related to implementing the new operating model. 3. Minimum required pension/all OPEB funding is reflected net of related expenses within Adjusted EBITDA.

Strong balance sheet management in 2019

Key financial metrics and pension & OPEB bridge as of December 31, 2019

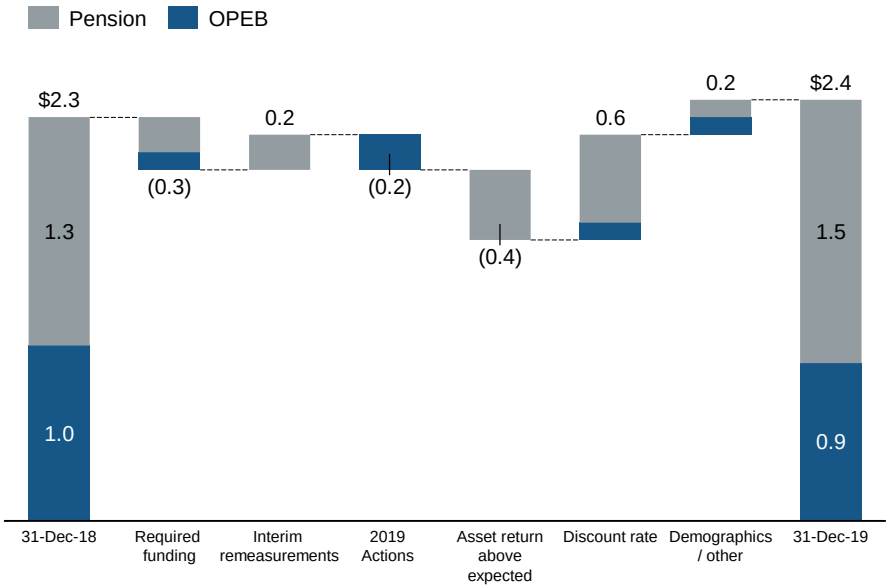
Key metrics

4Q19 Days working capital	2019 Return on capital
27 Days	**4.2%**

FY19 Sustaining capital expenditures	FY19 Return-seeking capital expenditures
$290M	**$89M**

FY19 Free cash flow less net NCI distributions	Alcoa proportional adjusted net debt
$(114)M	**$3.4B**

Pension & OPEB net liability bridge, $B



2020 Outlook

FY20 Key metrics

Income statement excl. special items impacts

	FY19 Actual	FY20 Outlook
Bauxite shipments (Mdmt)	47.6	48.0 – 49.0
Alumina shipments (Mmt)	13.5	13.6 – 13.7
Aluminum shipments (Mmt)	2.9	3.0 – 3.1
Transformation (adj. EBITDA impacts)	$(7)M	~ $(85)M
Intersegment elims. (adj. EBITDA impacts)	$150M	Varies
Other corporate (adj. EBITDA impacts)	$(113)M	~ $(100)M
Depreciation, depletion and amortization	$713M	~ $685M
Non-operating pension/OPEB expense	$117M	~ $100M
Interest expense	$121M	~ $120M
Operational tax rate[1]	67.9%	~ 70-80%[1]
Net income of noncontrolling interest	$391M	40% of AWAC NI

Cash flow impacts

	FY19 Actual	FY20 Outlook
Minimum required pension/all OPEB funding	$292M	~ $400M
Additional pension funding	-	Will vary based on market conditions and cash availability
Discretionary debt repayment	-	
Stock repurchases	-	
Return-seeking capital expenditures[2]	$89M	~ $75M
Sustaining capital expenditures[2]	$290M	~ $400M
Payment of prior year income taxes	$351M	~ $50M[3]
Current period cash taxes	$365M	Varies[1]
Environmental and ARO payments[4]	$107M	~ $150M
Impact of restructuring and other charges	$220M	TBD

Note: Additional market sensitivities and business information included in appendix.

1. Estimate will vary with market conditions and jurisdictional profitability.
2. AWAC portion of FY20 Outlook: ~45% of return-seeking capital expenditures, and ~60% of sustaining capital expenditures.
3. Net of pending tax refunds.
4. As of December 31, 2019, the environmental remediation reserve balance was $335M and the ARO liability was $717M.

Roy Harvey

President and Chief Executive Officer

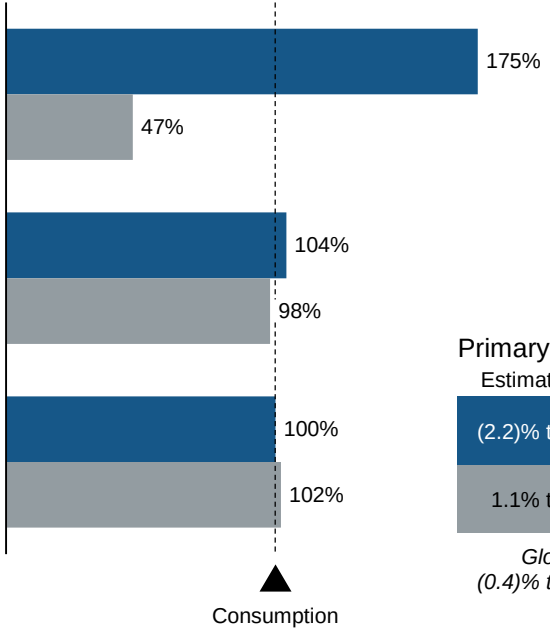
Alcoa

Surplus expected in bauxite and aluminum in 2020

Final 2019 and projected 2020 market balances, Mmt

	2019 Global	2020 Global	2020 Regional	
Third-party Seaborne **Bauxite**	10 to 12 Surplus	8 to 12 Surplus	113 to 115	World ex-China
			(105) to (103)	China
Smelter Grade **Alumina**	0.6 to 1.0 Surplus	(0.1) to 0.7 Balanced	1.3 to 1.7	World ex-China
			(1.4) to (1.0)	China
Primary **Aluminum**	(1.1) to (0.9) Deficit	0.6 to 1.0 Surplus	0 to 0.2	World ex-China
			0.6 to 0.8	China

2020 production as a percentage of consumption



Primary aluminum demand growth

Estimated 2019	Expected 2020
(2.2)% to (2.0)%	0.4% to 0.9%
1.1% to 1.3%	2.6% to 3.1%
Global (0.4)% to (0.2)%	*Global 1.4% to 2.4%*

Sources: Alcoa analysis, CRU, Wood Mackenzie, CM Group, IAI, CNIA, NBS, Aladdiny, Bloomberg, IMF. Pre-trade balances.

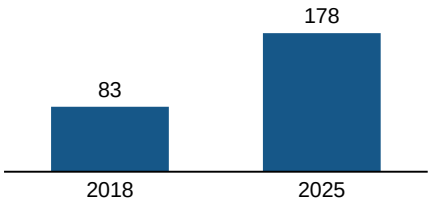
Superior bauxite and alumina assets, transitioning smelters

Market trends and Alcoa outlook

Market dynamics

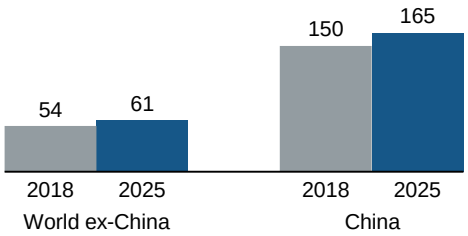
Bauxite

Chinese bauxite import demand (Mmt)



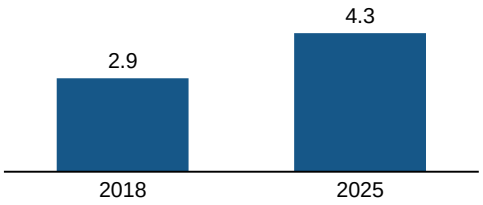
Alumina

Refinery bauxite costs ($/t alumina)



Aluminum

Chinese net semis exports increasing (Mmt)



Alcoa outlook

- One of the world's largest miners of high quality bauxite with unparalleled license to operate in sensitive areas
- Alcoa's low cost mines, strategically located in Australia, South America, and Africa, offer brownfield growth opportunities

- Alcoa's large, low cost global network of integrated mines and refineries is a competitive advantage
- Largest alumina refiner with largest long position outside of China and substantial brownfield growth opportunities

- Portfolio review positions Alcoa to operate a more profitable, more sustainable fleet of smelters
- Alcoa strives to be the lowest CO_2e intensity producer in the industry

Source: CRU, CM Group, China Customs data, Alcoa Commercial data, Alcoa Strategy, Alcoa 2018 Sustainability Report.

Strengthening the Company

Update on key actions

New operating model
Creating a leaner, more integrated, operator-centric Alcoa

New model in place November 1, 2019

- Net pre-tax, pre-minority savings of ~$60 million per annum ($37 million charge taken in 3Q19)
- Approximately 300 positions eliminated
- Full savings begin second quarter 2020

Non-core asset sales
Generating additional cash through non-core asset sales

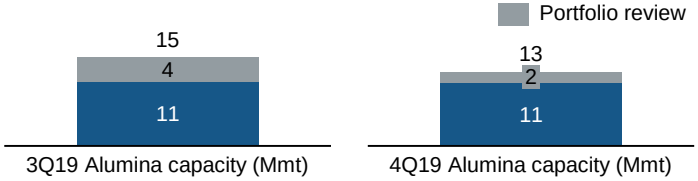
Announced sale of Gum Springs treatment facility

- Transaction expected to close in first quarter of 2020
- Net cash proceeds of $200 million
- Additional $50 million paid to Alcoa if certain post-closing conditions are satisfied

Portfolio review
Positioning to succeed financially in an evolving sustainable world

Closed Point Comfort refinery (curtailed in 2016)

- Expected annual net income improvement of ~$15 million and annual cash savings of ~$10 million
- Cash outlays of $115 million, majority over five years
- Restructuring charges in 4Q19 of ~$175 million



Progressed Suriname exit (closed in 2017)

- Finalized agreements to complete environmental remediation and mine rehabilitation activities
- Transferred Afobaka hydroelectric dam to Republic of Suriname at year-end
- Received payment of outstanding receivables

A stronger Alcoa through refreshed strategic priorities

Strategic priorities

- **Reduce complexity**
  A portfolio and operating model that is **low cost**, competitive and resilient in a low price environment
- **Drive returns**
  Improve commercial capabilities, invest in targeted growth opportunities, increase **margin focus** across the value chain
- **Advance sustainably**
  Continue to strengthen the balance sheet, transform portfolio and leverage our industry-leading environmental and social standards for a **sustainable** future

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

Appendix

Strengthening the Company, to date

Key actions to date

2017 – 2018

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

2019

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

Capital allocation framework

Capital allocation framework and considerations

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 2-4 years	Return excess cash to stockholders	Transform the portfolio	Invest in value creating growth projects

- $1 billion target for minimum cash balance
- Sustaining capital expenditures of ~$400 million, return seeking capital of ~$75 million, per 2020 outlook

- Based on current discount rates and estimated asset returns, expect meeting adjusted net debt target solely through minimum required pension contributions
- $150 million available of existing $200 million buyback authorization
- Portfolio review and transformation over five years
- Invest in major value creating projects

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

FY19 Income statement information

Annual income statement

M, Except realized prices and per share amounts	**Reported**	**Special items**	**Adjusted excl. special items**
Realized primary aluminum price ($/mt)	$2,141		$2,141
Realized alumina price ($/mt)	$343		$343
Revenue	$10,433		$10,433
Cost of goods sold	8,537	$(65)	8,472
COGS % revenue	81.8%		81.2%
SG&A and R&D expenses	307	(2)	305
SG&A and R&D % revenue	2.9%		2.9%
Adjusted EBITDA	1,589	67	1,656
Depreciation, depletion and amortization	713		713
Other expenses / (income), net	162	17	179
Interest expense	121		121
Restructuring and other charges, net	1,031	(1,031)	-
Provision for income taxes	415	21	436
Tax rate	-94.9%		67.9%
Net (loss) income	(853)	1,060	207
Less: Net income attributable to noncontrolling interest	272	119	391
Net (loss) income attributable to Alcoa Corporation	$(1,125)	$941	$(184)
Diluted (loss) earnings per share	$(6.07)	$5.08	$(0.99)
Diluted shares outstanding	185.5		185.5

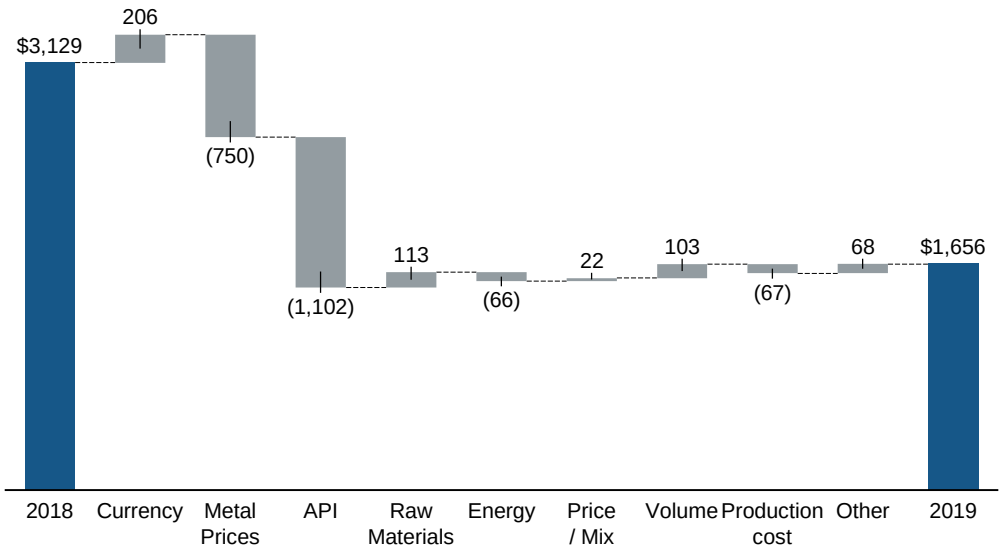
FY19 Financial information

FY19 Highlights and annual change impacts

Full year financial highlights

	FY19	vs. FY18
Realized primary aluminum price ($/mt)	$2,141	$(343)
Realized alumina price ($/mt)	$343	$(112)
Revenue, $M	$10,433	$(2,970)
Adjusted EBITDA excl. special items, $M	$1,656	$(1,473)
Net loss attributable to Alcoa, $M	$(1,125)	$(1,375)
Adjusted net loss attributable to Alcoa, $M	$(184)	$(882)
Adjusted EPS, $ per share	$(0.99)	$(4.69)

Adjusted EBITDA excl. special items bridge, $M



4Q19 Financial summary

Three months ending December 31, 2019, excluding special items

$M	Bauxite	Alumina	Aluminum[3,4]	Transformation	Intersegment eliminations	Other corporate	Alcoa Corporation
Total revenue	$311	$1,048	$1,640	$21	$(584)	-	$2,436
Third-party revenue	$65	$718	$1,634	$19	-	-	$2,436
Adjusted EBITDA[1]	$132	$133	$75	$(6)	$40	$(28)	$346
Adjusted EBITDA margin %	*42.4%*	*12.7%*	*4.6%*				*14.2%*
Depreciation, depletion and amortization	$30	$57	$84	$1	-	$11	$183
Other expenses, net[2]	-	$9	$5	-	-	$31	$45
Interest expense							$31
Provision for income taxes							$86
Adjusted net income							$1
Net income attributable to noncontrolling interest							$58
Adjusted net loss attributable to Alcoa Corp.							$(57)

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, $295M and $23M, respectively.
4. Third-party energy sales volume, revenue and adjusted EBITDA in Brazil were 897 GWh, $43M and $27M, respectively.

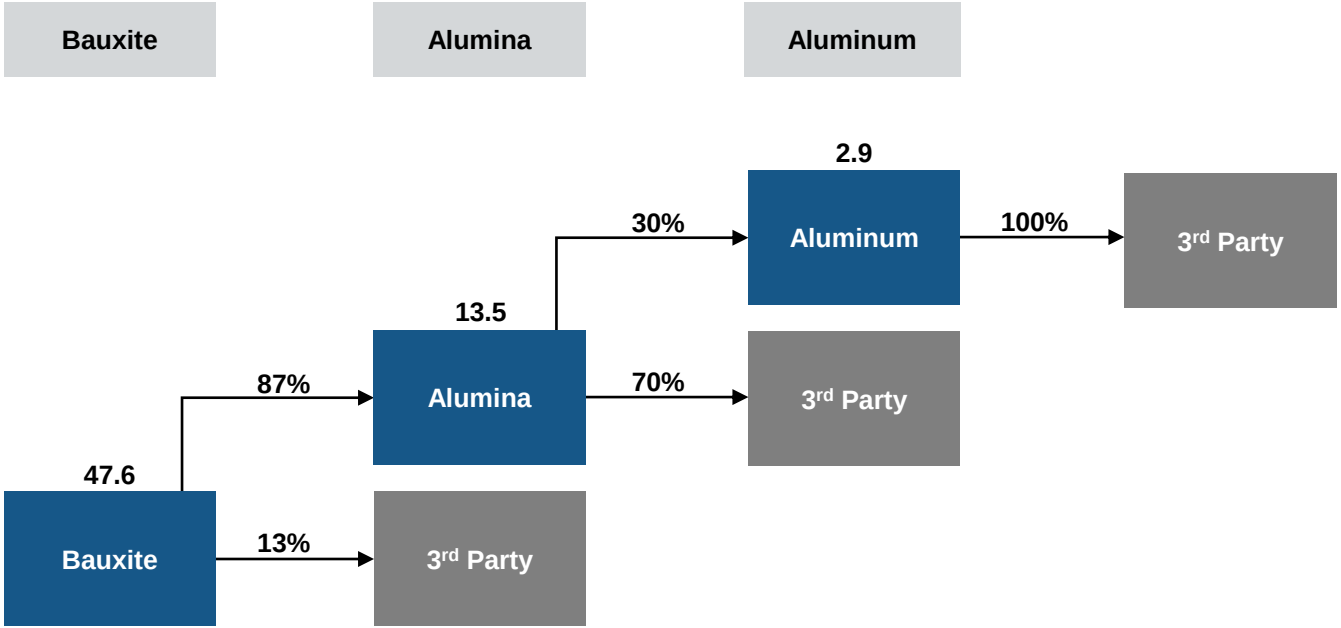
4Q19 Adjusted EBITDA drivers by segment

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

Segment	Adj. EBITDA 3Q19	Currency	Metal prices	API	Raw materials	Energy	Price/mix	Volume	Production costs	Other	Adj. EBITDA 4Q19
Bauxite	$134	1	-	-	-	-	9	(1)	(9)	(2)	$132
Alumina	$223	(8)	-	(91)	6	(7)	7	1	-	2	$133
Aluminum	$43	4	(21)	51	12	7	(10)	1	(5)	(7)	$75
Segment Total	**$400**	**(3)**	**(21)**	**(40)**	**18**	**0**	**6**	**1**	**(14)**	**(7)**	**$340**

Aluminum value chain

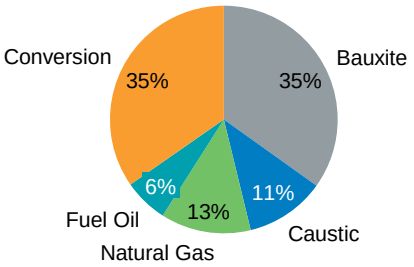
FY19 Alcoa product shipments by segment, as of December 31, 2019, Mmt



Composition of alumina and aluminum production costs

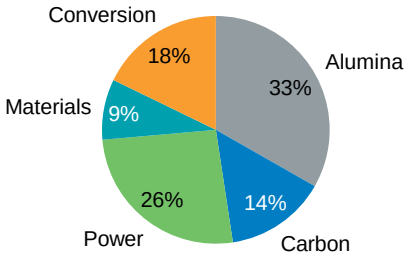
Alcoa 4Q19 production cash costs

Alumina refining



Input Cost	Inventory Flow	Pricing Convention	FY19 Annual Cost Sensitivity
Caustic Soda	5 - 6 Months	Quarterly	$10M per $10/dmt
Natural Gas[1]	N/A	N/A	N/A
Fuel Oil	1 - 2 Months	Prior Month	$3M per $1/barrel

Aluminum smelting



Input Cost	Inventory Flow	Pricing Convention	FY19 Annual Cost Sensitivity
Alumina	~2 Months	API	$39M per $10/mt
Petroleum Coke	1 - 2 Months	Spot, Quarterly & Semi-annual	$7M per $10/mt
Coal Tar Pitch	1 - 2 Months	Spot, Quarterly & Semi-annual	$1.8M per $10/mt

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

2020 Business information

Estimated annual Adjusted EBITDA sensitivities

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

Pricing conventions

Segment	3rd-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 2019 Primary aluminum shipments
Midwest	~50%
Rotterdam Duty Paid	~40%
CIF Japan	~10%

Additional business considerations

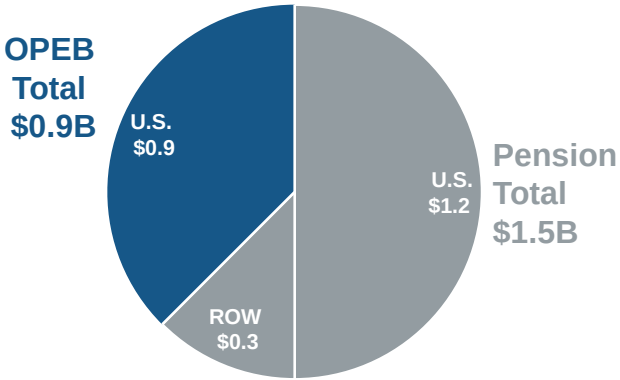
Items expected to impact adjusted EBITDA for 1Q20

- In the Bauxite segment, Adjusted EBITDA is expected to be $35 million lower, primarily due to lower sales prices and seasonally lower volumes
- In the Alumina segment, lower bauxite, energy and caustic costs are expected to offset unfavorable mix of sales contracts, and lower volume and higher operating costs due to seasonal overhauls and maintenance in the Western Australia refinery system; additionally, portfolio decisions result in $5 million sequential benefit
- In the Aluminum segment
  - Lower alumina prices flowing into the Aluminum segment in 4Q19 are estimated to produce sequential benefit of approximately $10 million in the first quarter
  - Benefits from Bécancour restart and lower raw materials costs are expected to be more than offset by higher energy costs in Europe, lower shipments of rolled products and price and mix impacts in North America, yielding an expected $5 to $10 million sequential decline
- Estimate intercompany profit elimination for every $10/mt decrease in API prices to be a $8 to $10 million favorable impact based on comparison of the average prices of the last two months of each quarter; consider intersegment eliminations as component of minority interest calculation
- Based on current market prices, the operational tax rate for the quarter is expected to be ~75%

Pension and OPEB summary

Net pension and OPEB liability and financial impacts

Net liability as of December 31, 2019[1]



Pension funding status as of December 31, 2019

- U.S. ERISA **~80%**
- GAAP Worldwide **~76%**

U.S. pension contributions currently not tax deductible

Estimated financial impacts, $M

Expense impact	**2020**
Segment pension	$50
Segment OPEB	5
Corporate pension & OPEB	5
Total adj. EBITDA impact	**60**
Non-operating	100
Special items (curtailment/settlement)	-
Total expense impact	**$160**

Cash flow impact	**2020**
Minimum required pension funding	$300
OPEB payments	100
Total cash impact	**$400**

1. The impact on the combined pension and OPEB liability of a 25 basis point change in the weighted average discount rate is approximately $175 million.

Investments summary

Investments listing and income statement location

Investee	Country	Nature of Investment[4]	Ownership Interest	Carrying Value as of December 31, 2019	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™				***$603M***	***Other expenses / (income), 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				***$510M***	***COGS***
Total investments				**$1,113M**	

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

Rigorous standard in place to manage tailings and residue

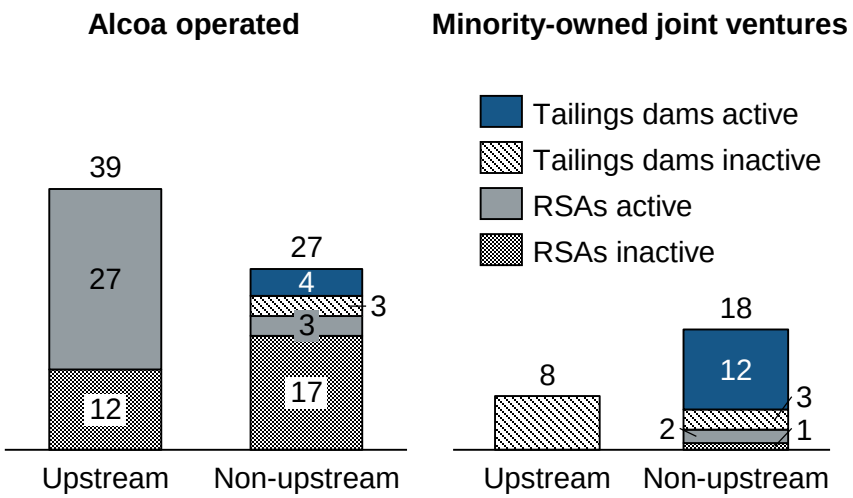
Industry leading standard established over 25 years ago; continuously improved and updated

Robust management process

- Governance structure with global oversight and clearly defined location responsibilities
- Annual independent, third party inspections of Alcoa operated and non-operated impoundments
- Facilities master planned, designed, engineered and constructed to high industry standards
- Operating practices meet or exceed Alcoa standards and local regulations
- Failure analysis and emergency response plans
- 2018 independent global review of impoundment management practices against external benchmarks
- Led industry improvements including dry stacking and filtration technologies
- Focused on progressively closing and rehabilitating inactive areas

Inventory of tailings dams & residue storage

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



Note: Inventory does not include 94 Alcoa operated and 17 minority joint venture other impoundments such as hydroelectric dams, fresh water reservoirs, stormwater management, process water, process materials outside of bauxite residue and tailings, closed and remediated legacy location RSAs, and ash ponds. Inventory totals have changed slightly from those included in recent Alcoa presentations, following an internal review to standardize definitions and ensure reporting consistency.

Production and capacity information

Alcoa Corporation annual consolidated amounts as of December 31, 2019

Bauxite production, Mdmt

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

Alumina refining, kmt

Facility	Country	Capacity	Curtailed
Kwinana	Australia	2,190	-
Pinjarra	Australia	4,234	-
Wagerup	Australia	2,555	-
Poços de Caldas	Brazil	390	214
São Luís (Alumar)	Brazil	1,890	-
San Ciprián	Spain	1,500	-
Total[2]		**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[3]	Canada	310	165
Deschambault	Canada	260	-
Fjarðaál	Iceland	344	-
Lista	Norway	94	-
Mosjøen	Norway	188	-
San Ciprián	Spain	228	
Intalco	U.S.	279	49
Massena West	U.S.	130	-
Warrick	U.S.	269	108
Wenatchee	U.S.	146	146
Total		**2,993**	**766**
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. On December 16, 2019, Alcoa announced the closure of the Point Comfort refinery reducing 2.3 million metric tons of annual alumina capacity.
3. On July 2, 2019, Alcoa announced that the Bécancour smelter plans to begin restart efforts for curtailed smelting capacity on July 26, after members of the United Steelworkers union in Québec, Canada approved a six-year labor agreement.

Valuation framework

Valuation framework key considerations

				FY19 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	$504M
	+	Alumina		$1,097M
	+	Aluminum	Economic value using market multiple of: i. Smelters, casthouses, rolling mill, and energy assets ii. Smelters and casthouses restart optionality	$25M
	-	Non-segment expenses (income)	Economic value using market multiple of: i. Net corporate expenses and Transformation	$(30)M
	=	Enterprise value		
Financial Considerations	-	Noncontrolling interest	Implied value of noncontrolling interest in AWAC JV, based on Alumina Limited's observed enterprise value	
	-	Debt & debt-like items[1]	Book value of debt of $1.8B ($1.8B, >95% Alcoa), pension & OPEB net liabilities of $2.3B ($2.4B, >95% Alcoa; U.S. contributions not tax deductible), environmental & ARO liabilities of $0.8B ($1.1B, ~80% Alcoa)	
	+	Cash & equity investments[1]	Cash position of $0.7B ($0.9B, ~80% Alcoa) plus carrying value of investments in the Ma´aden joint venture and ELYSIS™ of $0.5B ($0.6B, ~80% Alcoa)	
	=	Equity value		

1. Dollar amounts reflect Alcoa Corporation's consolidated balance sheet values as of December 31, 2019. The "Alcoa" percentages exclude amounts attributable to Alcoa Corporation's partner in the AWAC JV.

Adjusted EBITDA reconciliation

$M	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19
Net income (loss) attributable to Alcoa	**$195**	**$10**	**$(6)**	**$51**	**$250**	**$(199)**	**$(402)**	**$(221)**	**$(303)**	**$(1,125)**
Add:										
Net income attributable to noncontrolling interest	145	121	201	176	643	141	109	74	(52)	272
Provision for income taxes	151	158	260	163	732	150	116	95	54	415
Other expenses, net	21	9	2	32	64	41	50	27	44	162
Interest expense	26	32	33	31	122	30	30	30	31	121
Restructuring and other charges, net	(19)	231	177	138	527	113	370	185	363	1,031
Depreciation, depletion and amortization	194	192	173	174	733	172	174	184	183	713
Adjusted EBITDA	**713**	**753**	**840**	**765**	**3,071**	**448**	**447**	**374**	**320**	**1,589**
Special items before tax and noncontrolling interest	19	30	4	5	58	19	8	14	26	67
Adjusted EBITDA excl. special items	**$732**	**$783**	**$844**	**$770**	**$3,129**	**$467**	**$455**	**$388**	**$346**	**$1,656**

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.

Special items detail, net of tax and noncontrolling interest

$M	4Q18	3Q19	4Q19	Income statement classification
Special items	$82	$139	$246	
USW master agreement negotiation	-	2	-	Cost of goods sold
Bécancour lockout and restart costs	2	9	16	Cost of goods sold
Point Comfort refinery closure	-	-	2	Cost of goods sold
Warrick smelter restart costs	1	-	-	Cost of goods sold
Spain collective dismissal and divestiture costs	1	-	-	SG&A and R&D expenses
Mark-to-market energy contracts	(4)	-	(1)	Other expenses / (income), net
Gain on asset sales	-	(7)	-	Other expenses / (income), net
Point Comfort refinery closure	-	-	173	Restructuring and other charges, net
Suriname hydroelectric dam transfer	-	-	6	Restructuring and other charges, net
Spain collective dismissal and divestiture costs	-	134	(7)	Restructuring and other charges, net
Brazil state VAT valuation allowance	50	-	-	Restructuring and other charges, net
New operating model	-	26	-	Restructuring and other charges, net
Pension/OPEB related actions	11	2	74	Restructuring and other charges, net
Baie Comeau rod mill exit	4	-	-	Restructuring and other charges, net
Take or pay contracts at idled facilities	5	3	8	Restructuring and other charges, net
Other restructuring related items	5	2	1	Restructuring and other charges, net
Discrete tax items and interim tax impacts	7	(32)	(26)	Provision for income taxes

Free Cash Flow reconciliation

$M	1Q18	2Q18[1]	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19
Cash from operations	$55	$(430)	$288	$535	$168	$82	$174	$262
Capital expenditures	(74)	(95)	(82)	(148)	(69)	(89)	(87)	(134)
Free cash flow	**(19)**	**(525)**	**206**	**387**	**99**	**(7)**	**87**	**128**
Contributions from noncontrolling interest	53	56	-	40	20	1	20	10
Distributions to noncontrolling interest	(267)	(118)	(181)	(261)	(214)	(72)	(102)	(84)
Free cash flow less net distributions to noncontrolling interest	**$(233)**	**$(587)**	**$25**	**$166**	**$(95)**	**$(78)**	**$5**	**$54**

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.

1. Cash from operations for the quarter ended June 30, 2018 includes a $500 million cash outflow for discretionary contributions made to three of Alcoa Corporation's U.S. defined benefit pension plans. The $500 million was funded with the gross proceeds of 6.125% Senior notes due 2028 issued in May 2018.

Net Debt reconciliation

	FY17			FY18			FY19		
$M	**Cons.**	**NCI**	**Alcoa Prop.**	**Cons.**	**NCI**	**Alcoa Prop.**	**Cons.**	**NCI**	**Alcoa Prop.**
Short-term borrowings	$8	$-	$8	$-	$-	$-	$-	$-	$-
Long-term debt due within one year	16	-	16	1	-	1	1	-	1
Long-term debt, less amount due within one year	1,388	7	1,381	1,801	34	1,767	1,799	31	1,768
Total debt[1]	1,412	7	1,405	1,802	34	1,768	1,800	31	1,769
Less: Cash and cash equivalents	1,358	252	1,106	1,113	296	817	879	167	712
Net debt	**54**	**(245)**	**299**	**689**	**(262)**	**951**	**921**	**(136)**	**1,057**
Plus: Net pension / OPEB liability	3,498	26	3,472	2,327	28	2,299	2,367	39	2,328
Adjusted net debt	**$3,552**	**$(219)**	**$3,771**	**$3,016**	**$(234)**	**$3,250**	**$3,288**	**$(97)**	**$3,385**

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. Total debt as of December 31, 2018 and 2019 includes $500 million aggregate principal amount of 6.125% senior notes due 2028 issued in May 2018, the gross proceeds of which were used to make discretionary contributions to three of Alcoa Corporation's U.S. defined benefit pension plans.

Days Working Capital

$M	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19
Receivables from customers	$814	$1,025	$1,017	$830	$758	$684	$596	$546
Add: Inventories	1,855	1,772	1,819	1,819	1,799	1,767	1,649	1,644
Less: Accounts payable, trade	1,813	1,752	1,711	1,663	1,503	1,523	1,418	1,484
DWC working capital	$856	$1,045	$1,125	$986	$1,054	$928	$827	$706
Sales	$3,090	$3,579	$3,390	$3,344	$2,719	$2,711	$2,567	$2,436
Number of days in the quarter	90	91	92	92	90	91	92	92
Days Working Capital[1]	**25**	**27**	**31**	**27**	**35**	**31**	**30**	**27**

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

Annualized Return on Capital (ROC)

Reconciliation and calculation information

$M	2018	2019
Numerator:		
Net income (loss) attributable to Alcoa Corporation	$250	$(1,125)
Add: Net income attributable to noncontrolling interest	643	272
Add: Provision for income taxes	732	415
Profit before taxes (PBT)	**1,625**	**(438)**
Add: Interest expense	122	121
Less: Interest income	18	18
Add: Special items[1]	563	1,082
ROC earnings before taxes	**$2,292**	**$747**
ROC earnings after fixed tax rate of 35%	**$1,490**	**$485**
Denominator, average calculated using quarter-ending balances:		
Total assets	$16,621	$15,154
Less: Cash, cash equivalents, restricted cash and short-term investments	1,111	897
Less: Current liabilities	2,978	2,588
Add: Long-term debt due within one year and short-term borrowings	9	1
Average capital base	**$12,541**	**$11,670**
ROC	**11.9%**	**4.2%**

$$\text{ROC \%} = \frac{(\text{PBT} + \text{net interest}^{2} + \text{special items}^{1}) \times (1 - \text{fixed tax rate}^{3})}{(\text{Total assets} - \text{cash}^{4} - \text{current liabilities} + \text{short-term debt})} \times 100$$

$$\text{2018 ROC \%} = \frac{(\$1{,}625 + \$104 + \$563) \times (1 - 0.35)}{(\$16{,}621 - \$1{,}111 - \$2{,}978 + \$9)} \times 100 = 11.9\%$$

$$\text{2019 ROC \%} = \frac{(-\$438 + \$103 + \$1{,}082) \times (1 - 0.35)}{(\$15{,}154 - \$897 - \$2{,}588 + \$1)} \times 100 = 4.2\%$$

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

Glossary of terms

Abbreviations listed in alphanumeric order

Abbreviation	Description
% pts	Percentage points
1H##	Six months ending June 30
1Q##	Three months ending March 31
2H##	Six months ending December 31
2Q##	Three months ending June 30
3Q##	Three months ending September 30
4Q##	Three months ending December 31
Adj.	Adjusted
API	Alumina Price Index
ARO	Asset retirement obligations
AUD	Australian dollar
AWAC	Alcoa World Alumina and Chemicals
B	Billion
BRL	Brazilian real
CAD	Canadian dollar
CIF	Cost, insurance and freight
CO_2e	Carbon dioxide equivalent
COGS	Cost of goods sold
Cons.	Consolidated
DoC	Days of consumption
dmt	Dry metric ton
DWC	Days working capital
EBITDA	Earnings before interest, taxes, depreciation and amortization
Elims.	Eliminations
EPS	Earnings per share
ERISA	Employee Retirement Income Security Act of 1974
EUR	Euro
Est.	Estimated
excl. or ex.	Excluding

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

The Element of ***Possibility***™

Alcoa