

*The Element of* **Possibility**<sup>™</sup>

# 3<sup>rd</sup> Quarter Earnings

**Alcoa Corporation**

October 16, 2019



## 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**



# Substantial actions continue to strengthen the portfolio



## 3Q19 Financial results and business review

### 3Q19 Financial results

- Net loss of \$221 million, or \$1.19 per share; excluding special items, adjusted net loss of \$82 million, or \$0.44 per share
- Adjusted EBITDA excluding special items of \$388 million
- Cash balance of \$0.8 billion on September 30

### Business review

- One serious incident in quarter; continuing to prioritize safety
- Record quarterly production for bauxite and alumina operating portfolio
- Completed disposition of Avilés and La Coruña facilities
- Bécancour restart underway and on schedule
- Ratified USW contract covering 1,700 employees at five U.S. locations
- Aluminum market remains in deficit; demand growth slowing
- Announced new operating model, asset sales and portfolio review

# William Oplinger

**Executive Vice President and Chief Financial Officer**



# Revenue down slightly, volume partially offsets price slip



## Quarterly income statement

*M, Except realized prices and per share amounts*

	3Q18	2Q19	3Q19	Prior Year Change	Sequential Change
Realized primary aluminum price (\$/mt)	\$2,465	\$2,167	<b>\$2,138</b>	\$(327)	\$(29)
Realized alumina price (\$/mt)	\$493	\$376	<b>\$324</b>	\$(169)	\$(52)
Revenue	\$3,390	\$2,711	<b>\$2,567</b>	\$(823)	\$(144)
Cost of goods sold	2,485	2,189	<b>2,120</b>	(365)	(69)
SG&A and R&D expenses	65	75	<b>73</b>	8	(2)
Adjusted EBITDA	840	447	<b>374</b>	(466)	(73)
Depreciation, depletion and amortization	173	174	<b>184</b>	11	10
Other expenses, net	2	50	<b>27</b>	25	(23)
Interest expense	33	30	<b>30</b>	(3)	0
Restructuring and other charges, net	177	370	<b>185</b>	8	(185)
Provision for income taxes	260	116	<b>95</b>	(165)	(21)
Net income (loss)	195	(293)	<b>(147)</b>	(342)	146
Less: Net income attributable to noncontrolling interest	201	109	<b>74</b>	(127)	(35)
Net income (loss) attributable to Alcoa Corporation	\$(6)	\$(402)	<b>\$(221)</b>	\$(215)	\$181
Diluted earnings (loss) per share	\$(0.03)	\$(2.17)	<b>\$(1.19)</b>	\$(1.16)	\$0.98
Diluted shares outstanding <sup>1</sup>	186.5	185.5	<b>185.6</b>	(0.9)	0.1

1. 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 \$139M, primarily Spain divestiture



## Breakdown of special items by income statement classification – gross basis

<i>M, Except per share amounts</i>	<b>3Q18</b>	<b>2Q19</b>	<b>3Q19</b>	<b>Description of significant <u>3Q19</u> special items</b>
Net income (loss) attributable to Alcoa Corporation	\$ (6)	\$ (402)	<b>\$ (221)</b>	
Diluted earnings (loss) per share	\$ (0.03)	\$ (2.17)	<b>\$ (1.19)</b>	
Special items	\$ 160	\$ 400	<b>\$ 139</b>	
<i>Cost of goods sold</i>	4	8	<b>14</b>	<i>Bécancour lockout and restart costs</i>
<i>Restructuring and other charges, net</i>	177	370	<b>185</b>	<i>Spain collective dismissal and divestiture; new operating model</i>
<i>Other expenses (income), net</i>	(8)	-	<b>(7)</b>	<i>Gain on sale of asset</i>
<i>Provision for income taxes</i>	(13)	22	<b>(44)</b>	<i>Interim tax impacts</i>
<i>Noncontrolling interest</i>	-	-	<b>(9)</b>	<i>Partner share of special items</i>
Adjusted net income (loss) attributable to Alcoa Corporation	\$ 154	\$ (2)	<b>\$ (82)</b>	
Adjusted diluted earnings (loss) per share	\$ 0.82	\$ (0.01)	<b>\$ (0.44)</b>	



# Adjusted net loss \$82M, adjusted loss per share \$0.44



## Quarterly income statement excluding special items

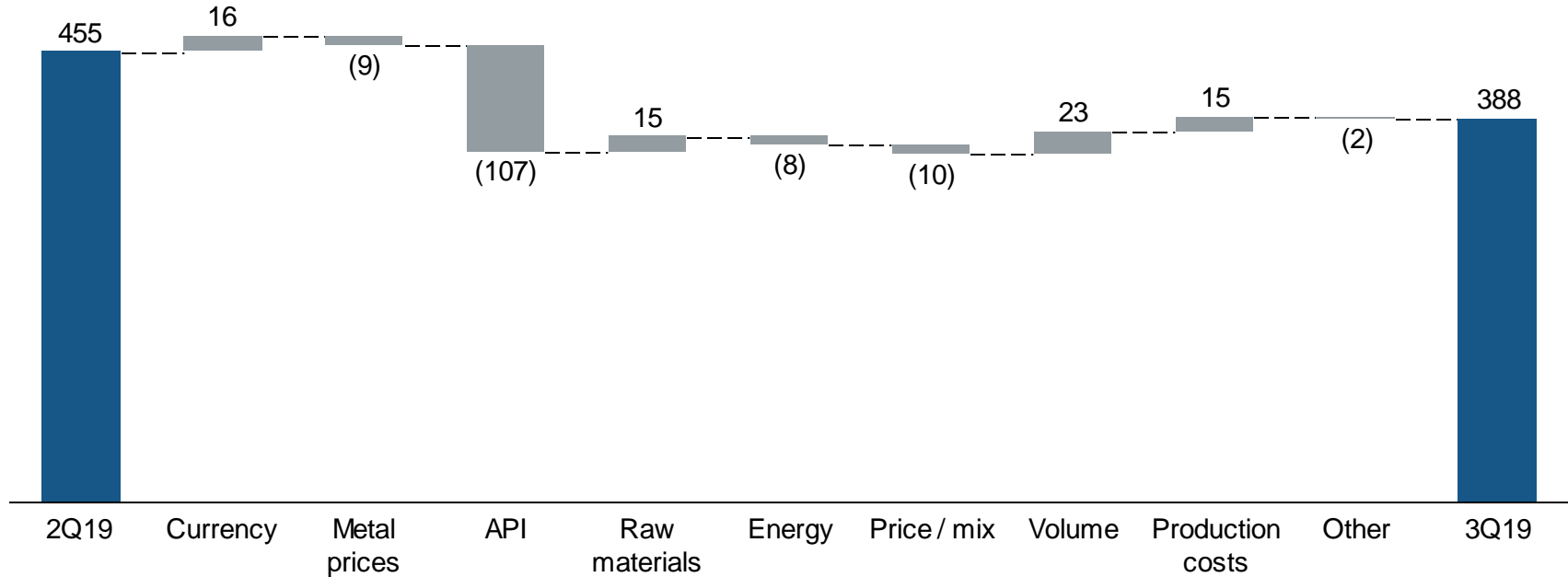
<i>M, Except realized prices and per share amounts</i>	3Q18	2Q19	3Q19	Prior Year Change	Sequential Change
Realized primary aluminum price (\$/mt)	\$2,465	\$2,167	<b>\$2,138</b>	\$(327)	\$(29)
Realized alumina price (\$/mt)	\$493	\$376	<b>\$324</b>	\$(169)	\$(52)
Revenue	\$3,390	\$2,711	<b>\$2,567</b>	\$(823)	\$(144)
Cost of goods sold	2,481	2,181	<b>2,106</b>	(375)	(75)
COGS % of Revenue	73.2%	80.5%	<b>82.0%</b>	8.8% pts.	1.5% pts.
SG&A and R&D expenses	65	75	<b>73</b>	8	(2)
SG&A and R&D % of Revenue	1.9%	2.8%	<b>2.8%</b>	0.9% pts.	0.0% pts.
Adjusted EBITDA	844	455	<b>388</b>	(456)	(67)
Depreciation, depletion and amortization	173	174	<b>184</b>	11	10
Other expenses, net	10	50	<b>34</b>	24	(16)
Interest expense	33	30	<b>30</b>	(3)	0
Provision for income taxes	273	94	<b>139</b>	(134)	45
Operational tax rate	43.4%	46.5%	<b>99.5%</b>	56.1% pts.	53.0% pts.
Adjusted net income	355	107	<b>1</b>	(354)	(106)
Less: Net income attributable to noncontrolling interest	201	109	<b>83</b>	(118)	(26)
Adjusted net income (loss) attributable to Alcoa Corporation	\$154	\$(2)	<b>\$(82)</b>	\$(236)	\$(80)
Adjusted diluted earnings (loss) per share	\$0.82	\$(0.01)	<b>\$(0.44)</b>	\$(1.26)	\$(0.43)
Diluted shares outstanding <sup>1</sup>	188.7	185.5	<b>185.6</b>	(3.1)	0.1

1. For 2Q19 and 3Q19, share equivalents related to employee stock-based compensation were excluded from Diluted shares outstanding as impact was anti-dilutive given a net loss.

# Solid performance partially offsets alumina price move



## Adjusted EBITDA excluding special items sequential changes, \$M

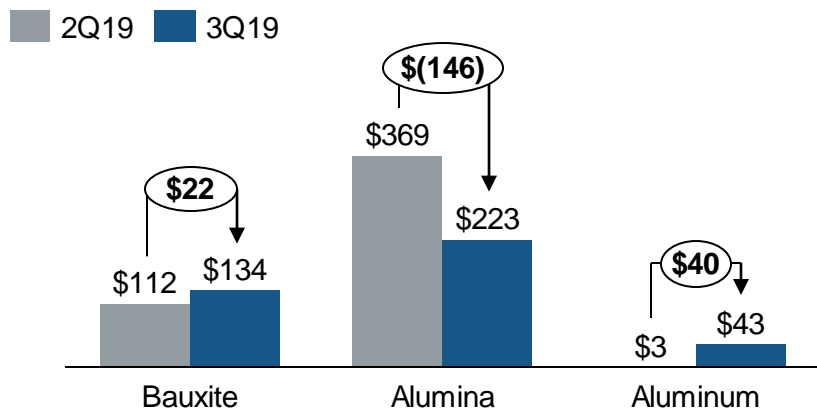


# Aluminum and Bauxite gain; Alumina impacted by market



## Adjusted EBITDA excluding special items breakdown

### Segment information, \$M



### Total Adjusted EBITDA information, \$M

	2Q19	3Q19	Change
<b>Segment total</b>	\$484	<b>\$400</b>	\$(84)
Transformation	3	<b>(6)</b>	(9)
Intersegment eliminations	(1)	<b>25</b>	26
Other corporate	(31)	<b>(31)</b>	-
<b>Total Adjusted EBITDA</b>	\$455	<b>\$388</b>	\$(67)

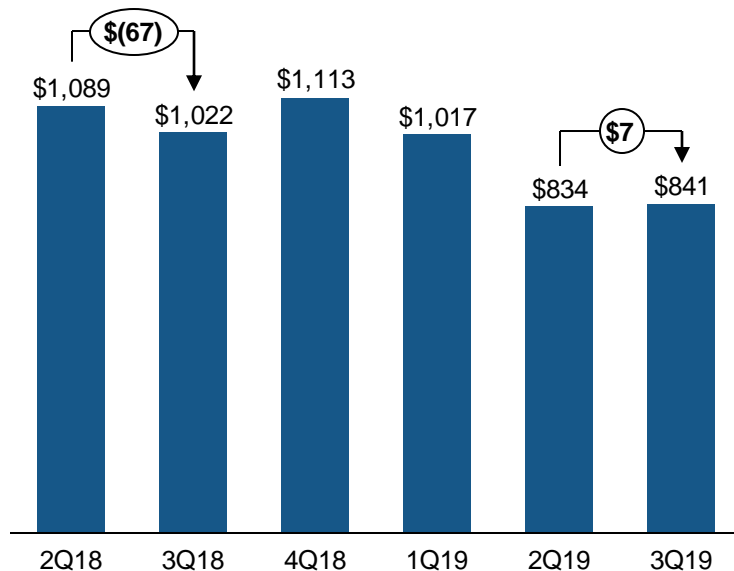
3Q19 Segment Adj. EBITDA Margin %	38.2%	19.6%	2.6%
Change vs. 2Q19, Margin %	+2.4% pts.	-8.6% pts.	+2.4% pts.

# Cash balance steady as portfolio improvements continue



## Balance sheet and cash review

### Quarter ending cash balance, \$M



### Key metrics as of September 30, 2019

3Q19 Days working capital	2019 YTD Return on capital
<b>30 Days</b>	<b>4.6%</b>
2019 YTD Sustaining capital expenditures	2019 YTD Return-seeking capital expenditures
<b>\$181M</b>	<b>\$64M</b>
Alcoa proportional adjusted net debt	2019 YTD Free cash flow less net NCI distributions
<b>\$3.4B</b>	<b>\$(168)M</b>

## FY19 Key metrics

Income statement excl. special items impacts		
	2019 YTD Actual	FY19 Outlook
Bauxite shipments (Mmt)	35.8	47.0 – 48.0
Alumina shipments (Mmt)	10.1	13.6 – 13.7
Aluminum shipments (Mmt)	2.1	2.8 – 2.9
Transformation (adj. EBITDA impacts)	\$(1)M	~ \$(5)M
Intersegment elims. (adj. EBITDA impacts)	\$110M	Varies
Other corporate (adj. EBITDA impacts)	\$(85)M	~ \$(115)M
Depreciation, depletion and amortization	\$530M	~ \$700M
Non-operating pension/OPEB expense	\$89M	~ \$115M
Interest expense	\$90M	~ \$120M
Operational tax rate <sup>1</sup>	62.9%	~ 65% <sup>1</sup>
Net income of noncontrolling interest	\$333M	40% of AWAC NI

Cash flow impacts		
	2019 YTD Actual	FY19 Outlook
Minimum required pension/all OPEB funding	\$146M	~ \$300M
Additional pension funding	-	Will vary based on market conditions and cash availability
Discretionary debt repayment	-	
Stock repurchases	-	
Return-seeking capital expenditures <sup>2</sup>	\$64M	~ \$110M
Sustaining capital expenditures <sup>2</sup>	\$181M	~ \$290M
Payment of prior year income taxes	\$374M	~ \$360M <sup>3</sup>
Current period cash taxes	\$261M	Varies <sup>1</sup>
Environmental and ARO payments <sup>4</sup>	\$73M	~ \$110M
Impact of restructuring and other charges	\$192M	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 FY 19 Outlook: ~45% of return-seeking capital expenditures, and ~55% of sustaining capital expenditures.
3. Net of pending tax refunds.
4. As of September 30, 2019, the environmental remediation reserve balance was \$269M and the ARO liability was \$601M.

# Roy Harvey

**President and Chief Executive Officer**



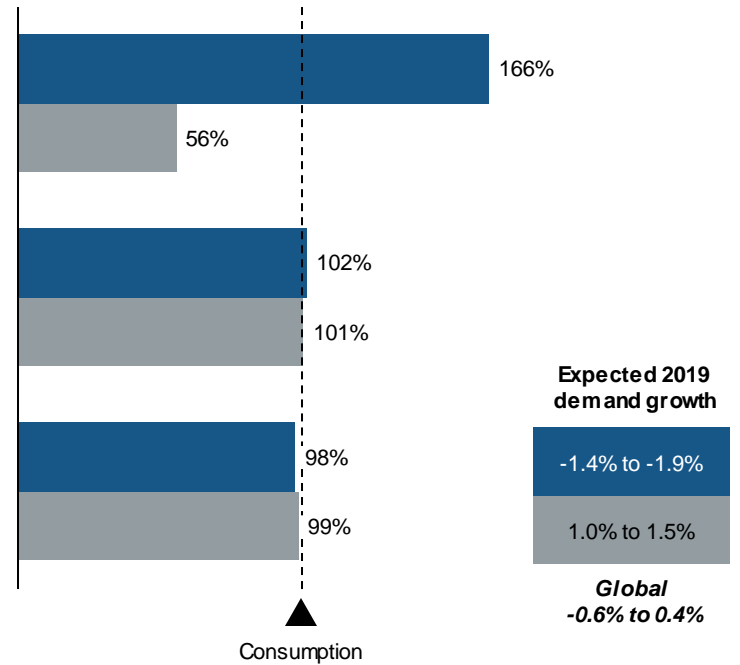
# Aluminum projected to be in deficit in 2019



## Projected 2019 market balances, Mmt

	Global	Regional	
Third-party <b>Bauxite</b>	15 to 19 Surplus	102 to 104	World ex-China
		(87) to (85)	China
Smelter Grade <b>Alumina</b>	1.0 to 1.8 Surplus	0.7 to 1.1	World ex-China
		0.3 to 0.7	China
Primary <b>Aluminum</b>	(1.2) to (0.8) Deficit	(0.7) to (0.5)	World ex-China
		(0.5) to (0.3)	China

Global production as a percentage of consumption



# Strengthening the Company for current market conditions



## Key actions

### Recent

### Now

### Near Term (12-18 months)

#### Improvement initiatives

- Safety program revitalized
- Quarterly bauxite and alumina production records
- New labor contracts at Baie Comeau, Bécancour and five USW locations
- Avilés and La Coruña smelters, Saudi rolling mill and auto sheet plant divested
- Multiple pension & OPEB actions
- Deschambault smelter creep project
- ELYSIS™ partnership launched

#### Overhead reduction

- New operating model for a leaner, more integrated, operator-centric organization that accelerates the Company's strategic priorities
- Net pre-tax, pre-minority savings of ~\$60 million per annum, driven by:
  - Elimination of BU structure
  - Consolidation of commercial capabilities
- Savings begin second quarter 2020
- \$37 million restructuring charge, \$26 million after tax and noncontrolling interest

#### Asset sales

- Additional cash generation through non-core asset dispositions
- Estimated \$500 million to \$1 billion in net proceeds
- Based on annualized 2019 YTD results, approximately \$50 million to \$100 million in reduced adjusted EBITDA due to asset sales



# Alcoa positioned to succeed in evolving sustainable world



## Aluminum and Alcoa benefits

### Aluminum sustainability advantages

- Demand for aluminum products has doubled since 2000 and expected to continue to grow at ~3% per year in next decade
- Beneficial properties include its low density, strength and corrosion resistance
- Infinitely recyclable, saving up to 95% of the energy required for primary production; the aluminum can is the most recycled beverage container in the world
- Reduces vehicle weight, fuel consumption and greenhouse gas emissions

## Alcoa sustainability position

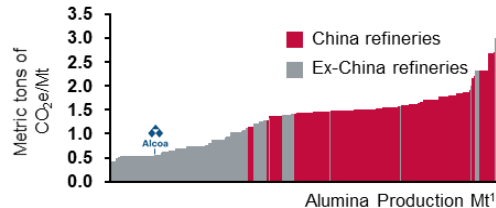
### Corporate

- Aluminium Stewardship Initiative (ASI) certification across value chain
- Listed on Dow Jones Sustainability Index
- Included on Human Rights Campaign Foundation's Corporate Equality Index

### Bauxite

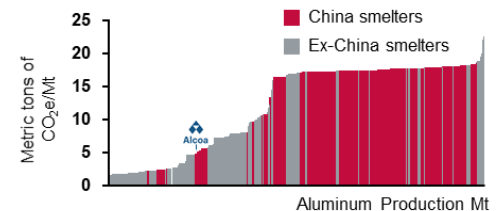
- World class mine rehabilitation
- Best-in-class<sup>2</sup> methods of mining in areas of high biodiversity

### Alumina



- Lowest CO<sub>2</sub>e intensity refiner in the industry<sup>2</sup>
- Sustainable residue management, including use of press filtration

### Aluminum

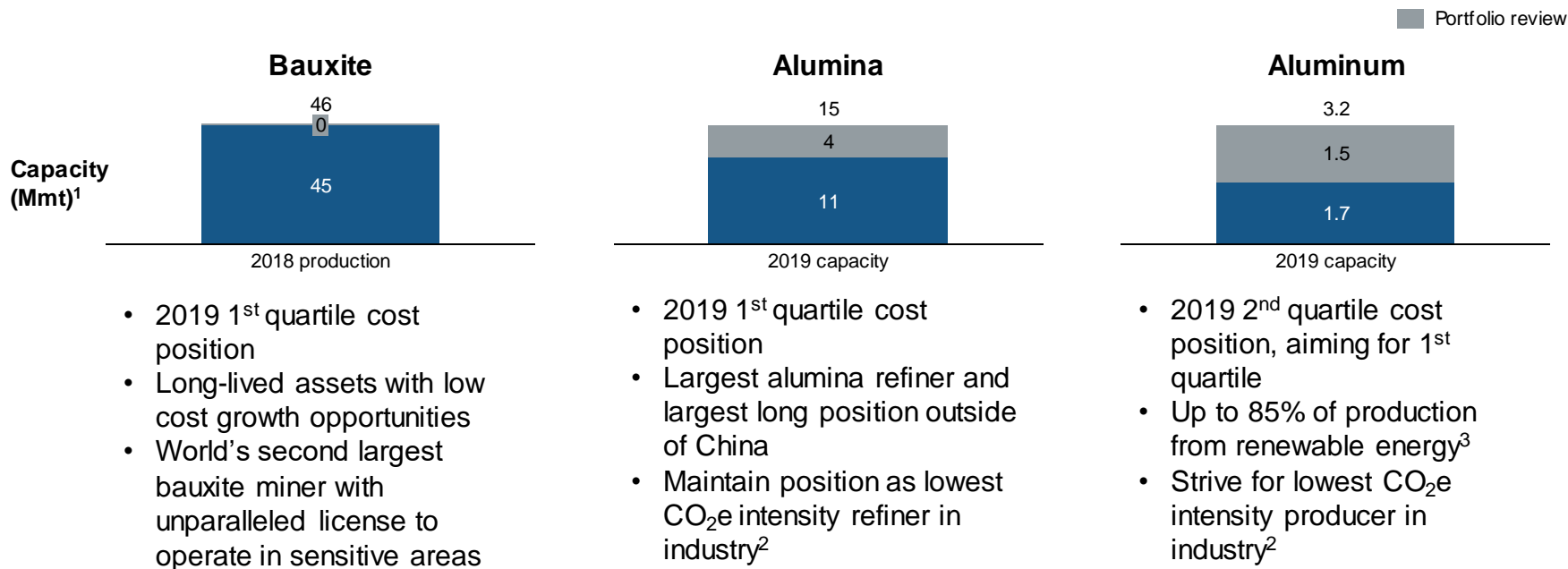


- Low CO<sub>2</sub>e intensity producer<sup>2</sup>
- ~70% of production from renewable energy
- SUSTANA™ low carbon products

Sources: IAI, CRU, WoodMac, Harbor, Alcoa analysis 1. Chart does not include 1.1Mt of non-Alcoa refineries with >4Mt CO<sub>2</sub>e/Mt 2. Per independent 3<sup>rd</sup> party reviews, Scope 1 & 2 emissions

# Review portfolio to be even more competitive

## Asset portfolio review



# 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**

# Questions?

**Alcoa Corporation**



# Appendix



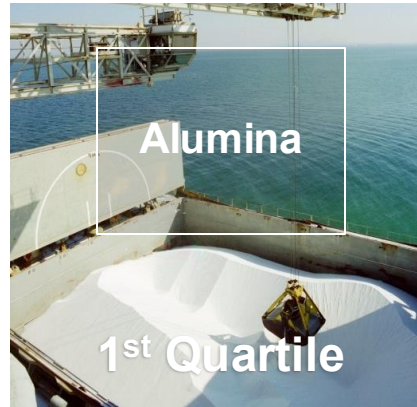
# Superior bauxite and alumina assets, solid smelter portfolio



## 2019 Cost curve and business position



- World's second largest bauxite miner, with a first quartile cost position (25<sup>th</sup> percentile)
- Long-lived assets with low-cost growth opportunities



- Largest alumina refiner and largest long position, outside of China
- Low cost, global network of refineries with a first quartile cost position (9<sup>th</sup> percentile)



- Top 10 global aluminum smelter
- Improved from 3<sup>rd</sup> quartile in 2018 (46<sup>th</sup> percentile)
- 72% powered by renewable energy<sup>1</sup>

# Strengthening the Company, to date



## Key actions to date

### 2017-2018

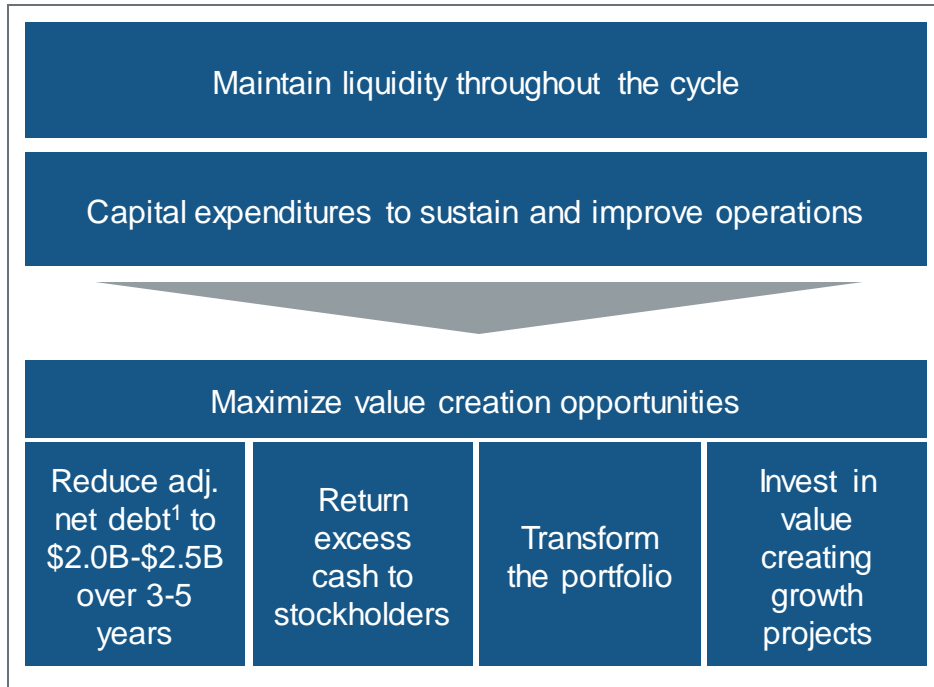
- Revitalized safety program; zero fatalities in 2018
- Restarted Portland smelter and Lake Charles calciner
- Streamlined business units to three, reduced administrative locations, relocated headquarters to Pittsburgh
- Set annual production records
- Terminated Rockdale power contract, closed site
- 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
- Set quarterly production records
- Modernized labor contracts at Baie Comeau, Bécancour, and five USW locations in U.S.
- Curtailed and divested Avilés and La Coruña smelters
- Divested minority interest in Saudi rolling mill and auto sheet plant
- Began restart of Bécancour
- Announced Deschambault smelter creep project
- Announced new operating model and ~\$60 million annual savings starting in second quarter 2020

# Capital allocation framework

## Capital allocation framework and considerations



- \$1 billion target for minimum cash balance
  - Sustaining capital expenditures of ~\$290 million, return seeking capital of ~\$110 million, per 2019 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



# 3Q19 Financial summary



## Three months ending September 30, 2019, excluding special items

\$M	Bauxite	Alumina	Aluminum <sup>3,4</sup>	Transformation	Intersegment eliminations	Other corporate	Alcoa Corporation
Total revenue	\$351	\$1,140	\$1,681	\$21	\$(626)	-	\$2,567
Third-party revenue	\$100	\$771	\$1,677	\$19	-	-	\$2,567
Adjusted EBITDA <sup>1</sup>	\$134	\$223	\$43	\$(6)	\$25	\$(31)	\$388
<i>Adjusted EBITDA margin %</i>	<i>38.2%</i>	<i>19.6%</i>	<i>2.6%</i>				<i>15.1%</i>
Depreciation, depletion and amortization	\$35	\$54	\$88	\$1	-	\$6	\$184
Other expenses (income), net <sup>2</sup>	-	-	\$5	-	-	\$29	\$34
Interest expense							\$30
Provision for income taxes							\$139
Adjusted net income							\$1
Net income attributable to noncontrolling interest							\$83
Adjusted net income (loss) attributable to Alcoa Corp.							\$(82)

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, \$305M and \$8M, respectively.
4. Third-party energy sales volume, revenue and adjusted EBITDA in Brazil were 1,241 GWh, \$44M and \$21M, respectively.

# 3Q19 Adjusted EBITDA drivers by segment



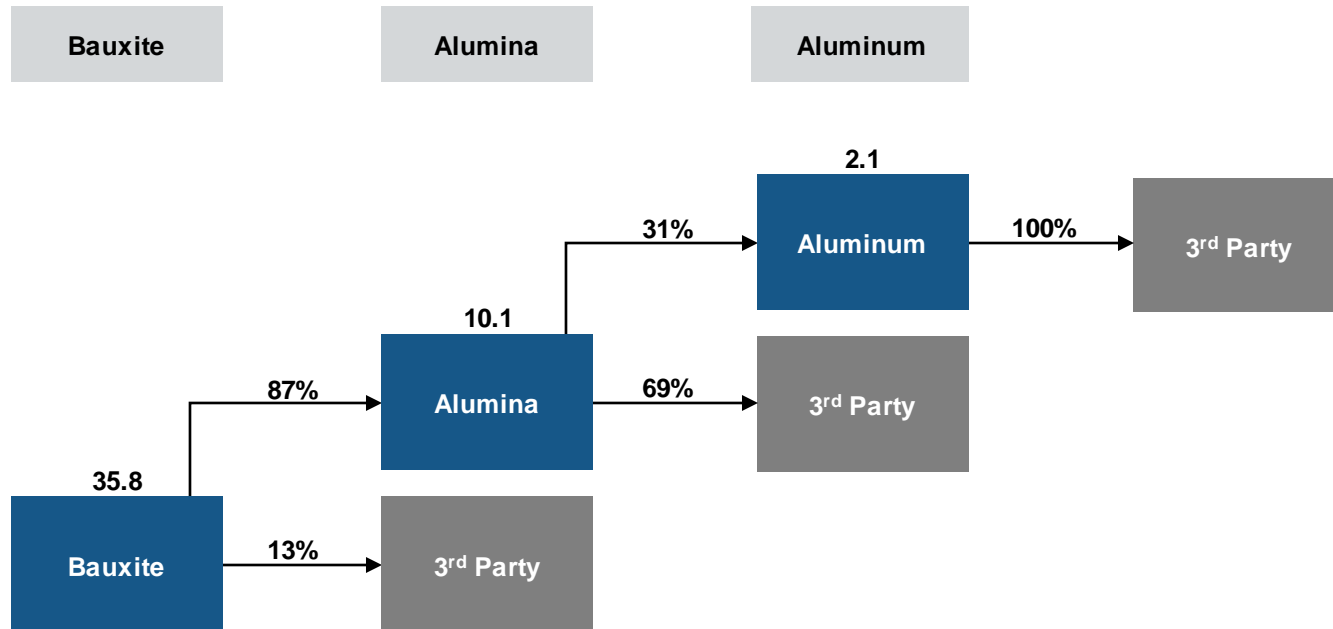
## Adjusted EBITDA excl. special items sequential changes by segment, \$M

Segment	Adj. EBITDA 2Q19	Currency	Metal prices	API	Raw materials	Energy	Price/mix	Volume	Production costs	Other	Adj. EBITDA 3Q19
Bauxite	\$112	2	-	-	-	-	(2)	6	9	7	\$134
Alumina	\$369	14	-	(197)	5	2	2	19	10	(1)	\$223
Aluminum	\$3	-	(12)	40	10	(10)	(10)	(2)	(4)	28	\$43
<b>Segment Total</b>	<b>\$484</b>	<b>16</b>	<b>(12)</b>	<b>(157)</b>	<b>15</b>	<b>(8)</b>	<b>(10)</b>	<b>23</b>	<b>15</b>	<b>34</b>	<b>\$400</b>

# Aluminum value chain



YTD Alcoa product shipments by segment, as of September 30, 2019, Mmt

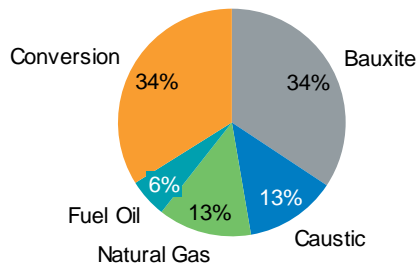


# Composition of alumina and aluminum production costs



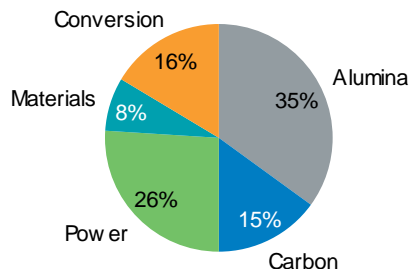
## Alcoa 3Q19 production cash costs

### Alumina refining



Input Cost	Inventory Flow	Pricing Convention	FY19 Annual Cost Sensitivity
Caustic Soda	5 - 6 Months	Quarterly	\$10M per \$10/dmt
Natural Gas <sup>1</sup>	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.

# 2019 Business information



## Estimated annual Adjusted EBITDA sensitivities

<i>\$M</i>	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		120				(19)	9		(1)		
Aluminum	193	(36)	118	90	24	(1)		2	(3)	7	3
Total	193	84	118	90	24	(24)	12	2	(4)	7	3

## Pricing conventions

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

## Regional premium breakdown

Regional premiums	% of 2019 Primary aluminum shipments
Midwest	~50%
Rotterdam Duty Paid	~40%
CIF Japan	~10%

## Items expected to impact adjusted EBITDA for 4Q19

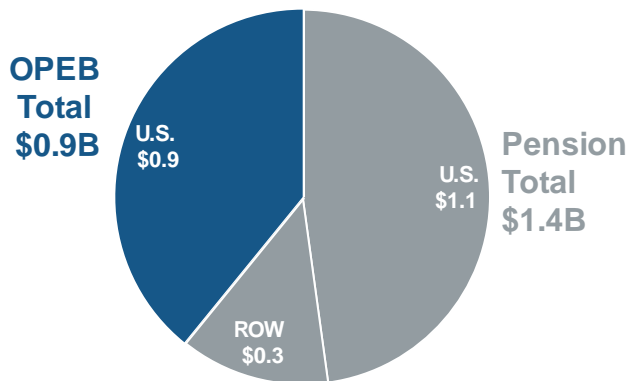
- In the Bauxite segment, Adjusted EBITDA is expected to be in line with third quarter record
- In the Alumina segment, higher volume, lower seasonal maintenance and lower caustic costs are expected to provide \$15 million to \$20 million sequential benefit
- In the Aluminum segment
  - Lower alumina prices flowing into the Aluminum segment in 4Q19 are estimated to produce sequential benefit of approximately \$45 million in the fourth quarter
  - Other than alumina costs, all other factors expected to net; lower raw materials costs are expected to be completely offset by higher seasonal energy costs and lower European product premiums
- Estimate intercompany profit elimination for every \$10/mt decrease in API prices to be a \$8 to \$10 million favorable impact based on comparison of the average prices of the last two months of each quarter; consider intersegment eliminations as component of minority interest calculation
- The operational tax rate for the quarter will include an approximately \$15 million YTD catch up amount, in addition to the annual rate, based on prices as of September 30

# Pension and OPEB summary



## Net pension and OPEB liability and financial impacts

### Net liability as of September 30, 2019<sup>1</sup>



### Pension funding status as of December 31, 2018

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

### U.S. pension contributions currently not tax deductible

1. The impact on the combined pension and OPEB liability of a 25 basis point change in the weighted average discount rate is approximately \$160 million.
2. Baie Comeau and Bécancour hourly pension plans remeasured as of May 31, 2019 and June 30, 2019, respectively, due to retirement benefit changes under new collective bargaining agreements. Australian pension plan remeasured as of September 30, 2019 due to lump sum settlements. All other pension and OPEB valuations as of December 31, 2018.

### Estimated financial impacts, \$M

Expense impact	2019
Segment pension	\$45
Segment OPEB	5
Corporate pension & OPEB	5
<b>Total adj. EBITDA impact</b>	<b>55</b>
Non-operating	115
Special items <sup>2</sup> (curtailment/settlement)	43
<b>Total expense impact</b>	<b>\$213</b>

Cash flow impact	2019
Minimum required pension funding	\$190
OPEB payments	110
<b>Total cash impact</b>	<b>\$300</b>

# Investments summary



## Investments listing and income statement location

Investee	Country	Nature of Investment <sup>4</sup>	Ownership Interest	Carrying Value as of September 30, 2019	Income Statement Location of Equity Earnings
ELYSIS™ Limited Partnership	Canada	Aluminum smelting technology	48.235%		
Ma'aden Aluminium Company <sup>1</sup>	Saudi Arabia	Aluminum smelter	25.1%		
Ma'aden Bauxite and Alumina Company <sup>1</sup>	Saudi Arabia	Bauxite mine and Alumina refinery	25.1% <sup>5</sup>		
<b>Subtotal Ma'aden and ELYSIS™</b>				<b>\$615M</b>	<b>Other expenses / (income), net</b>
Consortio Serra do Facão	Brazil	Hydroelectric generation facility	34.97%		
Energetica Barra Grande S.A.	Brazil	Hydroelectric generation facility	42.18%		
Halco Mining, Inc. <sup>2</sup>	Guinea	Bauxite mine	45.0% <sup>5</sup>		
Manicouagan Power Limited Partnership	Canada	Hydroelectric generation facility	40.0%		
Mineração Rio do Norte S.A. (MRN)	Brazil	Bauxite mine	18.2% <sup>5</sup>		
Pechiney Reynolds Quebec, Inc. <sup>3</sup>	Canada	Aluminum smelter	50.0%		
<b>Subtotal other</b>				<b>\$499M</b>	<b>COGS</b>
<b>Total investments</b>				<b>\$1,114M</b>	

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



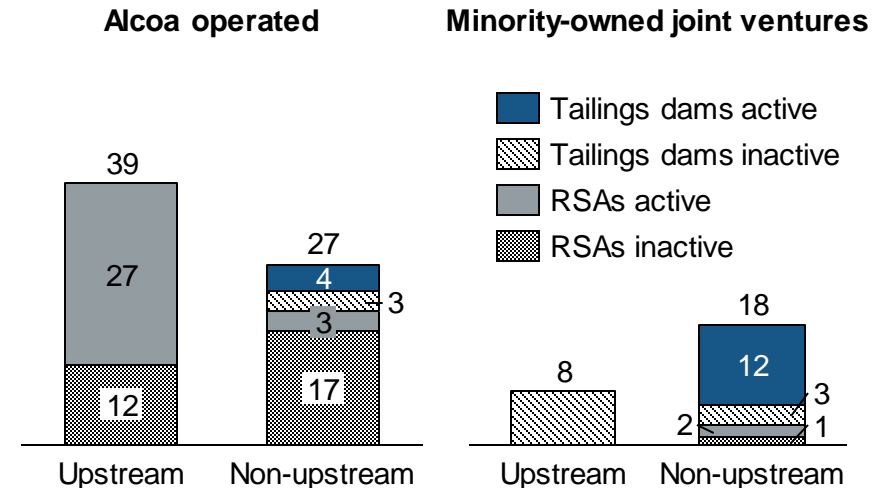
Industry leading standard established over 25 years ago; continuously improved and updated

## 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 September 30, 2019

### Bauxite production, Mdmt

Mine	Country	2018 Production
Darling Range	Australia	33.5
Juruti	Brazil	5.7
Poços de Caldas	Brazil	0.4
Trombetas (MRN)	Brazil	2.3
Boké (CBG)	Guinea	2.7
Al Ba'itha <sup>1</sup>	Saudi Arabia	1.1
<b>Total</b>		<b>45.8</b>

### 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	-
Point Comfort	U.S.	2,305	2,305
<b>Total</b>		<b>15,064</b>	<b>2,519</b>
<i>Ras Al Khair<sup>1</sup></i>	<i>Saudi Arabia</i>	<i>452</i>	<i>-</i>

### Aluminum smelting, kmt

Facility	Country	Capacity	Curtailed
Portland	Australia	197	30
São Luís (Alumar)	Brazil	268	268
Baie Comeau	Canada	280	-
Bécancour <sup>2</sup>	Canada	310	259
Deschambault	Canada	260	-
Fjarðaal	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
<b>Total</b>		<b>2,993</b>	<b>860</b>
<i>Ras Al Khair<sup>1</sup></i>	<i>Saudi Arabia</i>	<i>186</i>	<i>-</i>

1. The Company's proportionate share of earnings from its equity investment in the Saudi Arabian joint venture does not impact adjusted EBITDA.
2. On July 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 key considerations

LTM ending  
9/30/2019  
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	\$482M
	+	Alumina	ii. Ownership in certain mines and refineries outside the JV	\$1,647M
	+	Aluminum	Economic value using market multiple of: i. Smelters, casthouses, rolling mill, and energy assets ii. Smelters and casthouses restart optionality	\$(100)M
	-	Non-segment expenses (income)	Economic value using market multiple of: i. Net corporate expenses and Transformation	\$(51)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 <sup>1</sup>	Book value of debt of \$1.8B (\$1.8B, >95% Alcoa), pension & OPEB net liabilities of \$2.3B (\$2.3B, >95% Alcoa; U.S. contributions not tax deductible), environmental & ARO liabilities of \$0.7B (\$0.9B, ~80% Alcoa)	
	+	Cash & equity investments <sup>1</sup>	Cash position of \$0.7B (\$0.8B, ~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 September 30, 2019. The "Alcoa" percentages exclude amounts attributable to Alcoa Corporation's partner in the AWAC JV.

# Adjusted EBITDA reconciliation



<i>\$M</i>	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	LTM
<b>Net income (loss) attributable to Alcoa Corporation</b>	<b>\$195</b>	<b>\$10</b>	<b>\$(6)</b>	<b>\$51</b>	<b>\$250</b>	<b>\$(199)</b>	<b>\$(402)</b>	<b>\$(221)</b>	<b>\$(771)</b>
Add:									
Net income attributable to noncontrolling interest	145	121	201	176	643	141	109	74	500
Provision for income taxes	151	158	260	163	732	150	116	95	524
Other expenses, net	21	9	2	32	64	41	50	27	150
Interest expense	26	32	33	31	122	30	30	30	121
Restructuring and other charges, net	(19)	231	177	138	527	113	370	185	806
Depreciation, depletion and amortization	194	192	173	174	733	172	174	184	704
<b>Adjusted EBITDA</b>	<b>713</b>	<b>753</b>	<b>840</b>	<b>765</b>	<b>3,071</b>	<b>448</b>	<b>447</b>	<b>374</b>	<b>2,034</b>
Special items before tax and noncontrolling interest	19	30	4	5	58	19	8	14	46
<b>Adjusted EBITDA excl. special items</b>	<b>\$732</b>	<b>\$783</b>	<b>\$844</b>	<b>\$770</b>	<b>\$3,129</b>	<b>\$467</b>	<b>\$455</b>	<b>\$388</b>	<b>\$2,080</b>

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



<i>\$M</i>	3Q18	2Q19	3Q19	Income statement classification
Special items	\$160	\$400	\$139	
USW master agreement negotiation	-	5	2	Cost of goods sold
Bécancour lockout and restart costs	2	2	9	Cost of goods sold
Warrick smelter restart costs	1	-	-	Cost of goods sold
Mark-to-market energy contracts	(7)	-	-	Other expenses / (income), net
Gain on asset sales	-	-	(7)	Other expenses / (income), net
Spain collective dismissal and divestiture costs	-	-	134	Restructuring and other charges, net
Ma'aden Rolling Company divestiture	-	319	-	Restructuring and other charges, net
New operating model	-	-	26	Restructuring and other charges, net
Pension/OPEB related actions	174	28 <sup>1</sup>	2	Restructuring and other charges, net
Liberty coal mine exit	-	1	-	Restructuring and other charges, net
Take or pay contracts at idled facilities	2	9	3	Restructuring and other charges, net
Other restructuring related items	-	4	2	Restructuring and other charges, net
Discrete tax items and interim tax impacts	(12)	32 <sup>1</sup>	(32)	Provision for income taxes

1. Adjusted from prior presentation to show after-tax amount for line item.

# Free Cash Flow reconciliation



<i>\$M</i>	1Q18	2Q18 <sup>1</sup>	3Q18	4Q18	1Q19	2Q19	3Q19
Cash from operations	\$55	\$(430)	\$288	\$535	\$168	\$82	\$174
Capital expenditures	(74)	(95)	(82)	(148)	(69)	(89)	(87)
<b>Free cash flow</b>	<b>(19)</b>	<b>(525)</b>	<b>206</b>	<b>387</b>	<b>99</b>	<b>(7)</b>	<b>87</b>
Contributions from noncontrolling interest	53	56	-	40	20	1	20
Distributions to noncontrolling interest	(267)	(118)	(181)	(261)	(214)	(72)	(102)
<b>Free cash flow less net distributions to noncontrolling interest</b>	<b>\$(233)</b>	<b>\$(587)</b>	<b>\$25</b>	<b>\$166</b>	<b>\$(95)</b>	<b>\$(78)</b>	<b>\$5</b>

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



\$M	<u>1Q19</u>			<u>2Q19</u>			<u>3Q19</u>		
	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.
Short-term borrowings	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Long-term debt due within one year	1	-	1	1	-	1	1	-	1
Long-term debt, less amount due within one year	1,802	34	1,768	1,804	34	1,770	1,805	34	1,771
Total debt	1,803	34	1,769	1,805	34	1,771	1,806	34	1,772
Less: Cash and cash equivalents	1,017	238	779	834	184	650	841	186	655
<b>Net debt</b>	<b>786</b>	<b>(204)</b>	<b>990</b>	<b>971</b>	<b>(150)</b>	<b>1,121</b>	<b>965</b>	<b>(152)</b>	<b>1,117</b>
Plus: Net pension / OPEB liability	2,290	26	2,264	2,291	28	2,263	2,296	40	2,256
<b>Adjusted net debt</b>	<b>\$3,076</b>	<b>\$(178)</b>	<b>\$3,254</b>	<b>\$3,262</b>	<b>\$(122)</b>	<b>\$3,384</b>	<b>\$3,261</b>	<b>\$(112)</b>	<b>\$3,373</b>

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

# Days Working Capital



<i>\$M</i>	<b>3Q17</b>	<b>4Q17</b>	<b>1Q18</b>	<b>2Q18</b>	<b>3Q18</b>	<b>4Q18</b>	<b>1Q19</b>	<b>2Q19</b>	<b>3Q19</b>
Receivables from customers	\$840	\$811	\$814	\$1,025	\$1,017	\$830	\$758	\$684	\$596
Add: Inventories	1,494	1,599	1,855	1,772	1,819	1,819	1,799	1,767	1,649
Less: Accounts payable, trade	1,618	1,898	1,813	1,752	1,711	1,663	1,503	1,523	1,418
DWC working capital	\$716	\$512	\$856	\$1,045	\$1,125	\$986	\$1,054	\$928	\$827
Sales	\$2,964	\$3,174	\$3,090	\$3,579	\$3,390	\$3,344	\$2,719	\$2,711	\$2,567
Number of days in the quarter	92	92	90	91	92	92	90	91	92
<b>Days Working Capital<sup>1</sup></b>	<b>22</b>	<b>15</b>	<b>25</b>	<b>27</b>	<b>31</b>	<b>27</b>	<b>35</b>	<b>31</b>	<b>30</b>

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

<i>\$M</i>	2018 YTD	2019 YTD
<i>Numerator:</i>		
Net income (loss) attributable to Alcoa Corporation	\$199	\$(822)
Add: Net income attributable to noncontrolling interest	467	324
Add: Provision for income taxes	569	361
<b>Profit before taxes (PBT)</b>	<b>1,235</b>	<b>(137)</b>
Add: Interest expense	91	90
Less: Interest income	13	14
Add: Special items <sup>1</sup>	423	693
<b>ROC earnings before taxes</b>	<b>\$1,736</b>	<b>\$632</b>
<b>ROC earnings before taxes multiplied by four divided by three</b>	<b>\$2,315</b>	<b>\$843</b>
<b>ROC earnings after fixed tax rate of 35%</b>	<b>\$1,505</b>	<b>\$548</b>
<i>Denominator<sup>2</sup>:</i>		
Total assets	\$16,784	\$15,325
Less: Cash, cash equivalents, restricted cash and short-term investments	1,109	901
Less: Current liabilities	2,997	2,596
Add: Long-term debt due within one year and short-term borrowings	11	1
<b>Average capital base<sup>2</sup></b>	<b>\$12,689</b>	<b>\$11,829</b>
<b>ROC</b>	<b>11.9%</b>	<b>4.6%</b>

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

$$\text{2018 YTD ROC \%} = \frac{((\$1,235 + \$78 + \$423) \times 4/3) \times (1 - 0.35)}{(\$16,784 - \$1,109 - \$2,997 + \$11)} \times 100 = 11.9\%$$

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

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.

## 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 <sub>2</sub> e	Carbon dioxide equivalent
COGS	Cost of goods sold
Cons.	Consolidated
DoC	Days of consumption
dmt	Dry metric ton
DWC	Days working capital
EBITDA	Earnings before interest, taxes, depreciation and amortization
Elims.	Eliminations
EPS	Earnings per share
ERISA	Employee Retirement Income Security Act of 1974
EUR	Euro
Est.	Estimated
excl. or ex.	Excluding

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

*The Element of **Possibility***<sup>™</sup>

