Investor Presentation

February 2023

OUR VALUES

Act with Integrity

Operate with Excellence

Care for People

Lead with Courage

Alcoa

Cautionary Statement regarding Forward-Looking Statements

This presentation contains statements that relate to future events and expectations and as such constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those containing such words as “aims,” “ambition,” “anticipates,” “believes,” “could,” “develop,” “endeavors,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “outlook,” “potential,” “plans,” “projects,” “reach,” “seeks,” “sees,” “should,” “strive,” “targets,” “will,” “working,” “would,” or other words of similar meaning. All statements by Alcoa Corporation that reflect expectations, assumptions or projections about the future, other than statements of historical fact, are forward-looking statements, including, without limitation, forecasts concerning global demand growth for bauxite, alumina, and aluminum, and supply/demand balances; statements, projections or forecasts of future or targeted financial results, or operating or sustainability performance (including our ability to execute on strategies related to environmental, social and governance matters); statements about strategies, outlook, and business and financial prospects; and statements about capital allocation and return of capital. These statements reflect beliefs and assumptions that are based on Alcoa Corporation’s perception of historical trends, current conditions, and expected future developments, as well as other factors that management believes are appropriate in the circumstances. Forward-looking statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and changes in circumstances that are difficult to predict. Although Alcoa Corporation believes that the expectations reflected in any forward-looking statements are based on reasonable assumptions, it can give no assurance that these expectations will be attained and it is possible that actual results may differ materially from those indicated by these forward-looking statements due to a variety of risks and uncertainties. Such risks and uncertainties include, but are not limited to: (a) current and potential future impacts to the global economy and our industry, business and financial condition caused by various worldwide or macroeconomic events, such as the COVID-19 pandemic and the ongoing conflict between Russia and Ukraine, and related regulatory developments; (b) material adverse changes in aluminum industry conditions, including global supply and demand conditions and fluctuations in London Metal Exchange-based prices and premiums, as applicable, for primary aluminum and other products, and fluctuations in indexed-based and spot prices for alumina; (c) changes in global economic and financial market conditions generally, such as inflation, recessionary conditions, and interest rate increases, which may also affect Alcoa Corporation’s ability to obtain credit or financing upon acceptable terms or at all; (d) unfavorable changes in the markets served by Alcoa Corporation; (e) the impact of changes in foreign currency exchange and tax rates on costs and results; (f) unfavorable changes in cost, quality, or availability of key inputs, including energy and raw materials, or uncertainty of or disruption to the supply chain including logistics; (g) the inability to execute on strategies related to or achieve improvement in profitability and margins, cost savings, cash generation, revenue growth, fiscal discipline, environmental- and social-related goals and targets (including due to delays in scientific and technological developments), or strengthening of competitiveness and operations anticipated from portfolio actions, operational and productivity improvements, 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, restructuring activities, facility closures, curtailments, restarts, expansions, or joint ventures; (i) political, economic, trade, legal, public health and safety, and regulatory risks in the countries in which Alcoa Corporation operates or sells products; (j) labor disputes and/or work stoppages and strikes; (k) the outcome of contingencies, including legal and tax proceedings, government or regulatory investigations, and environmental remediation; (l) the impact of cyberattacks and potential information technology or data security breaches; (m) risks associated with long-term debt obligations; (n) the timing and amount of future cash dividends and share repurchases; (o) declines in the discount rates used to measure pension and other postretirement benefit liabilities or lower-than-expected investment returns on pension assets, or unfavorable changes in laws or regulations that govern pension plan funding; and, (p) the other risk factors discussed in Alcoa Corporation’s Annual Report on Form 10-K for the fiscal year ended December 31, 2022 and other reports filed by Alcoa Corporation with the U.S. Securities and Exchange Commission. Alcoa Corporation disclaims any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law. Market projections are subject to the risks described above and other risks in the market.

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

Important information

Non-GAAP Financial Measures

Some of the information included in this presentation is derived from Alcoa Corporation's consolidated financial information but is not presented in Alcoa Corporation'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 regulations. 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.

Resources

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

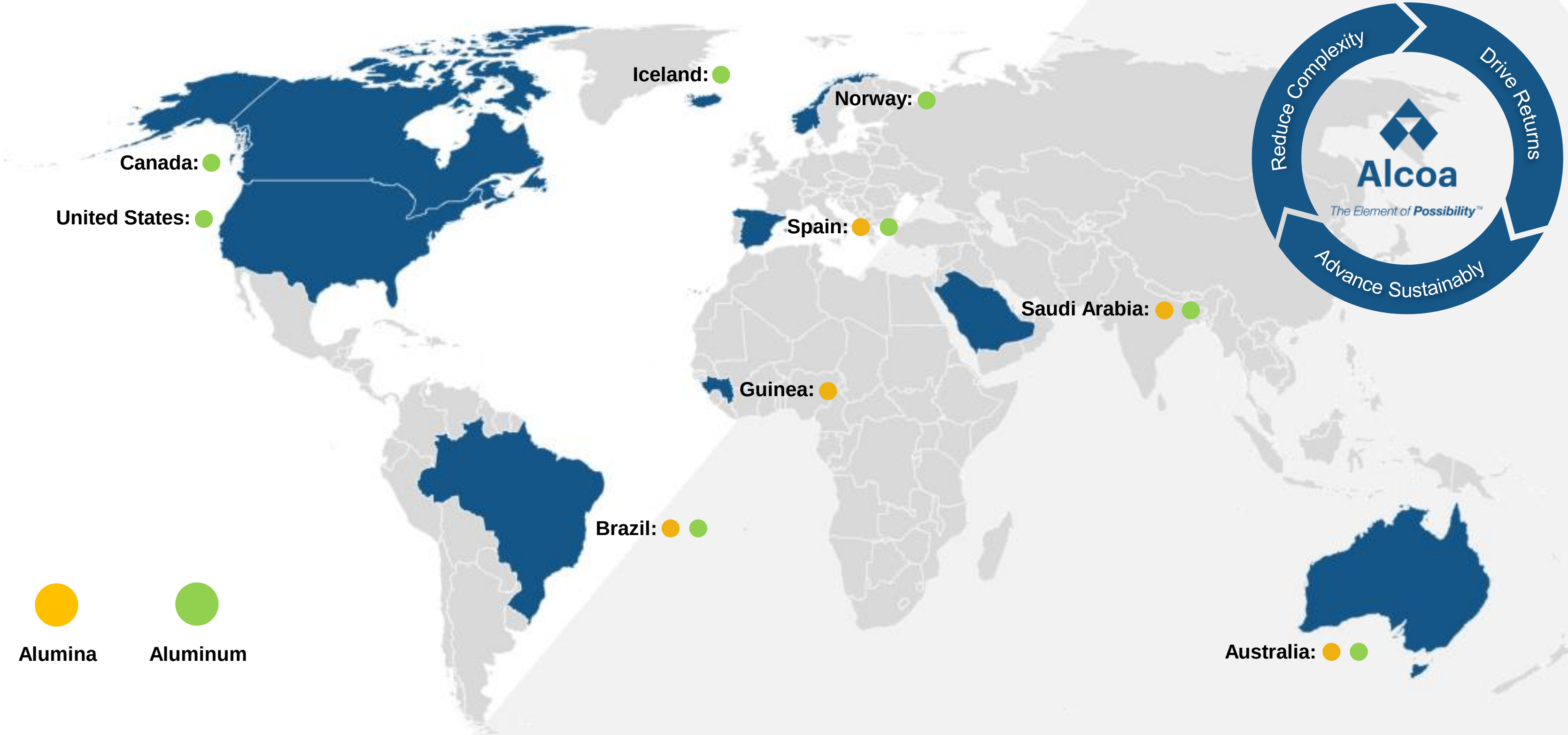
OUR PURPOSE

Turn raw potential into real progress

Alcoa

An upstream aluminum company with two business segments

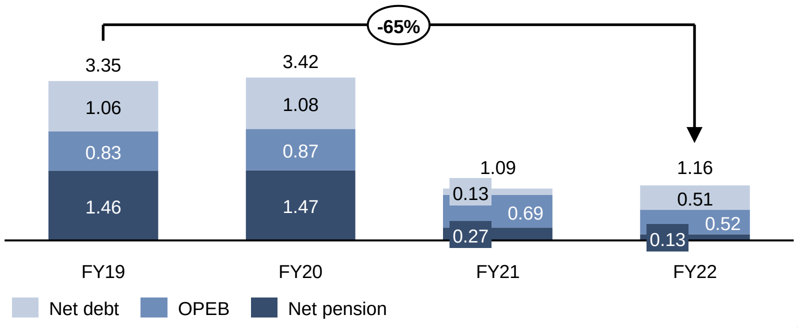
Alcoa global operations by business segment



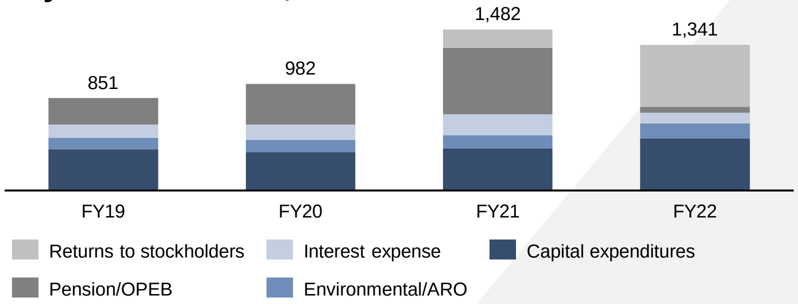
Balance sheet and portfolio actions and improvements

Balance sheet and portfolio actions, FY19 – FY22

Proportional adjusted net debt, $B



Key cash outflows, $M



Portfolio actions by year

2019 - 2021

- Closed Point Comfort refinery (idle since 2016)
- Sold Gum Springs facility for ~$200 million
- Sold Eastalco site for $95 million
- Sold Warrick rolling mill for ~$600 million
- Sold Rockdale site for $230 million
- Closed Wenatchee smelter (idle since 2015)

2022

- San Ciprián smelter full curtailment; new wind power contracts contracted for up to 75 percent of future power needs; restart planned to begin in 2024
- Continuing restart of Alumar smelter, operating 40 percent of total capacity at year end 2022
- Completed restart of Portland smelter, operating ~95 percent of total capacity at year end 2022
- Curtailed one of three potlines at Lista smelter
- Curtailed one of three potlines at Warrick smelter
- Curtailed 50 percent of San Ciprián refinery

Executive Team restructure aligned with our strategic priorities

Summary of changes to Executive Leadership Team and areas of focus

Changes made at executive level

- The following changes have been made to our executive leadership team:
  - Executive team size reduced from nine to eight
  - EVP, Chief Financial Officer appointed EVP, Chief Operations Officer
  - SVP and Controller appointed EVP, Chief Financial Officer
  - EVP and Chief Strategy officer added responsibility to become EVP, Chief Strategy and Innovation Officer
- Changes effective February 1, 2023

Areas of focus

- Align with our purpose to turn raw potential into real progress and vision to reinvent the aluminum industry for a sustainable future
- Address three key areas:
  - Operational excellence
  - Cost and financial management
  - Technology and sustainability opportunities
- Integrate and closely align the overall strategy with our technology programs
- Reduce cost and complexity

OUR VISION

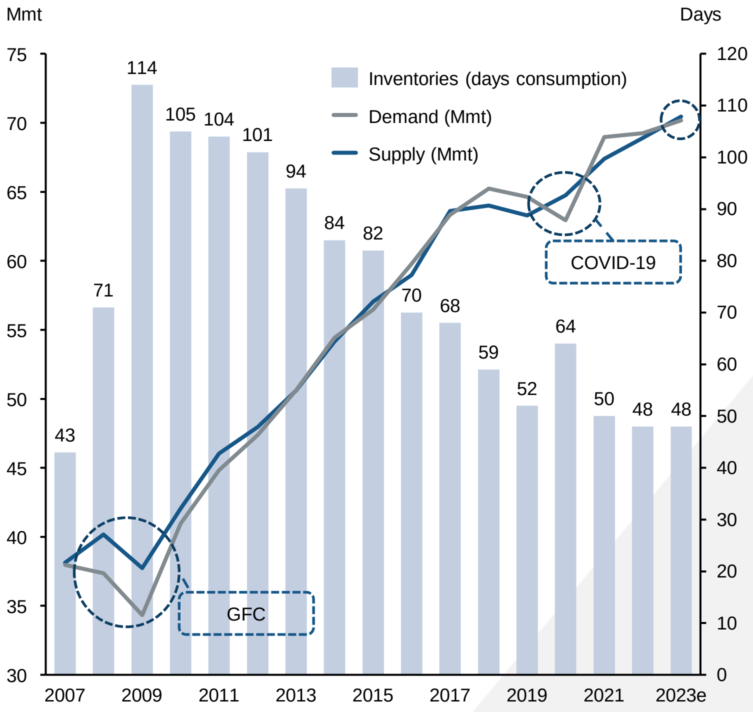
Reinvent the aluminum industry for a sustainable future

Alcoa

2023 Market expected to be balanced; positive mid term outlook

Historical global supply, demand, and inventories and mid term market outlook

Historical market trends, 2007 - 2023

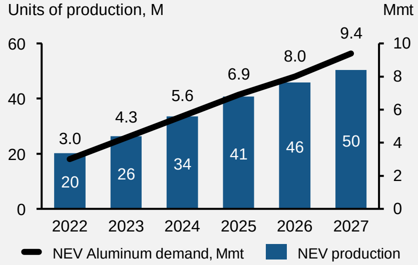


Mid term market outlook, 2023 - 2027

Factors driving aluminum demand

- Transportation, electrical and packaging sectors expected to lead aluminum demand growth
- Continued ramp up of new energy vehicle[1] production expected to increase aluminum demand

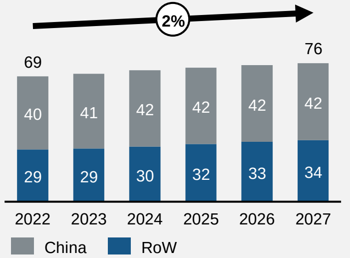
Global new energy vehicle production and aluminum demand required



Factors constraining aluminum supply

- RoW supply pipeline limited by renewable energy availability
- China growth expected to continue slowing as they prioritize carbon emissions and approach 45Mmt cap

Global primary aluminum production, Mmt, 2018 - 2027



Sources: CRU, LMC 1. Includes battery electric and hybrid electric vehicles

Full suite of Sustana™ products addressing carbon footprint

Summary of Sustana products and position on carbon emissions curves

Alcoa Sustana product line

Sustana EcoSource — Alcoa | Low-carbon alumina

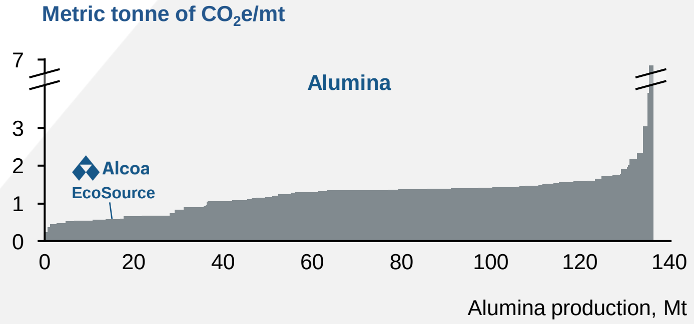
- Less than 0.6mt CO_2e emissions (scope 1 & 2) from bauxite and alumina[1]
- Available from all Alcoa smelter grade alumina refineries

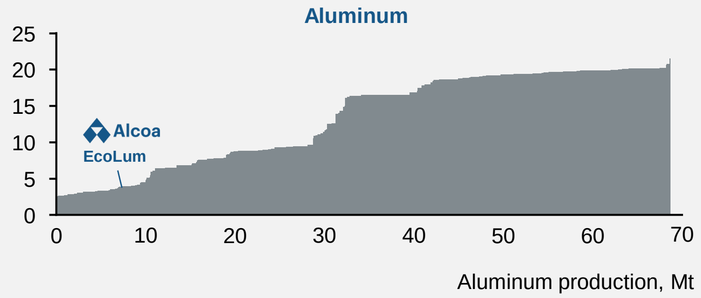
Sustana EcoLum — Alcoa | Low-carbon aluminum

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

Sustana EcoDura — Alcoa | Aluminum with recycled content

- Minimum 50% recycled content[2]
- Available globally





asi CERTIFIED PERFORMANCE

ASI certifications available for all products and 17 sites
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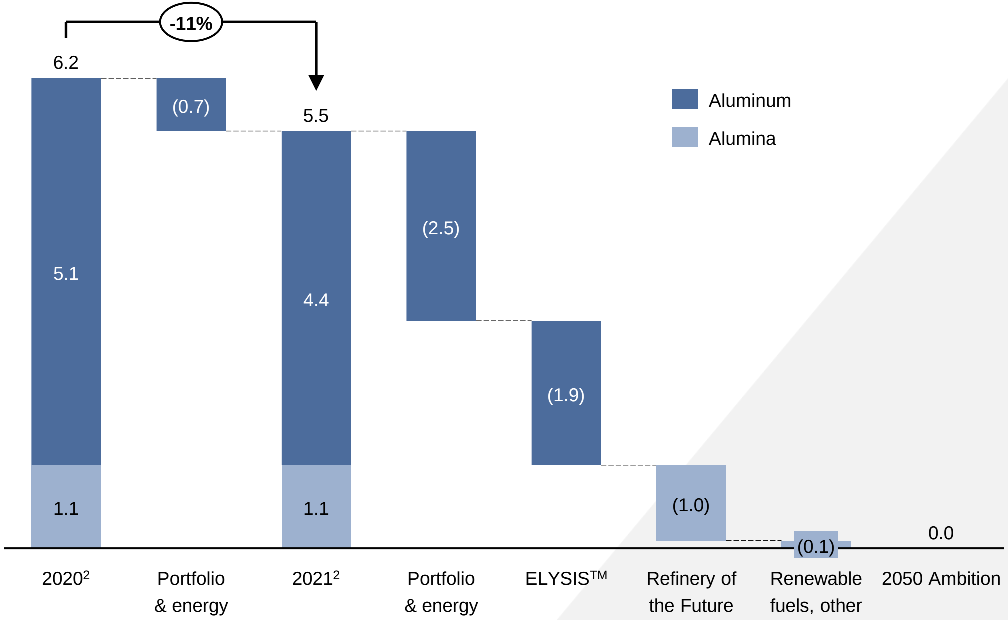
Sources: IAI, CRU, Alcoa analysis 1. Referring to Scope 1+2 from main relevant production stages vs same metric for other industry participants / global average emissions intensity; 2. Pre-consumer scrap; recycled content is defined using mass balance / credit allocation system at facility and production line level

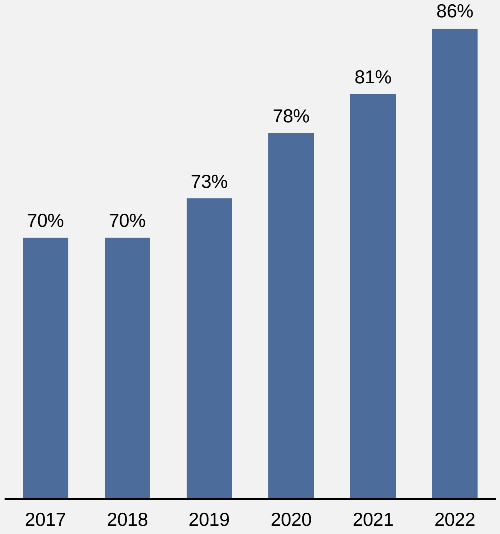
Expected pathways to support net zero ambition

Scope 1&2 emissions reduction pathways and renewable energy use over time

Estimated Alcoa scope 1&2 emissions reductions by segment, CO_2e/tonne[1]



Aluminum renewable energy consumption, 2017 – 2022[3]



1. Reductions in CO2e/tonne depend on various factors, including access to cost effective renewable energy, successful deployment of R&D projects under development with acceptable returns, and ability to complete portfolio review. See also the risk factors discussed in Part I Item 1A of Alcoa Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2022.
2. Source: 2020 and 2021 Alcoa Sustainability Reports
3. Source: 2017-2021 Alcoa Sustainability Reports and Alcoa Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2022

Technology roadmap addresses upstream aluminum value chain

Long-term technology projects under development for Alcoa system

Alcoa's **Refinery of the Future** project targets elimination of direct refinery emissions, lower water use, and reduced waste generation

ELYSIS™ inert-anode technology eliminates Scope 1 emissions associated with aluminum smelting

ASTRAEA™ technology focuses on creating high purity aluminum from post-consumer scrap

Alcoa plans to partner with customers to provide alloy development to support recycling

MINING → TRANSPORT → REFINING → TRANSPORT → SMELTING → CASTING → POST CONSUMER RECYCLING → TRANSPORT → CUSTOMERS

Support from Australian Renewable Energy Agency and Western Australia's Clean Energy Future Fund to pilot electric calcination and mechanical vapor recompression (MVR)

Building 450ka commercial scale trial pots in Quebec

Selling ELYSIS metal to Ronal for wheels on Audi e-tron GT

Developing pilot program and patented process

Continue growing volumes and margins of Sustana products

Remelt furnace at Mosjoen to offer recycled products

Strong, lightweight and energy efficient, fit for the future

Shared qualities of aluminum and Alcoa Corporation

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Alcoa

The world is decarbonizing, and aluminum can be part of the solution

Alcoa's strong balance sheet, lean operating model and renewable energy efficiency leave it well positioned to prosper in a world that demands more aluminum, constrains carbon-based energy and rewards aluminum producers already low on the carbon curve

As importantly, Alcoa has technologies under development that have the potential to change the industry by lowering costs, further improving operational efficiencies, removing carbon from production processes and increasing recyclability

With our progress to date and our aspirations for the future we believe that Alcoa is the right company, in the right industry, at the right time

4Q22 Financial and other information as presented on January 18, 2023

Alcoa

The results presented on January 18, 2023 do not include a $21 million adjustment to Other (income) expense, net that is reflected in the 2022 Form 10-K filed on February 23, 2023.

Flexible and safe operations amid varying market conditions

Alcoa values, strategic priorities, and key takeaways for 4Q22

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4Q22 Takeaways

- No fatal or serious injuries (FSI-As) in the quarter
- Financial results for 4Q22
  - Net loss attributable to Alcoa of $374 million; Adjusted net loss of $123 million
  - Adjusted EBITDA excluding special items of $29 million
  - Cash balance of $1.4 billion, proportional adjusted net debt at $1.2 billion
  - Paid quarterly cash dividend; FY22 capital returns total $572 million
- Operating level adjustments
  - Completed restart of Portland smelter in Australia
  - Progressing restart of Alumar smelter in Brazil
  - Operating San Ciprián refinery and Lista smelter at reduced capacities
  - In January, cut production rate by 30 percent at Kwinana refinery in Australia
- Named top tier performer in S&P Dow Jones Sustainability Indices
- Announced in January a restructured Executive Leadership Team to ensure continued focus on operational excellence, rigorous cost management, and transformative technologies

4Q22 EPS of $(2.12), Adjusted EPS of $(0.70)

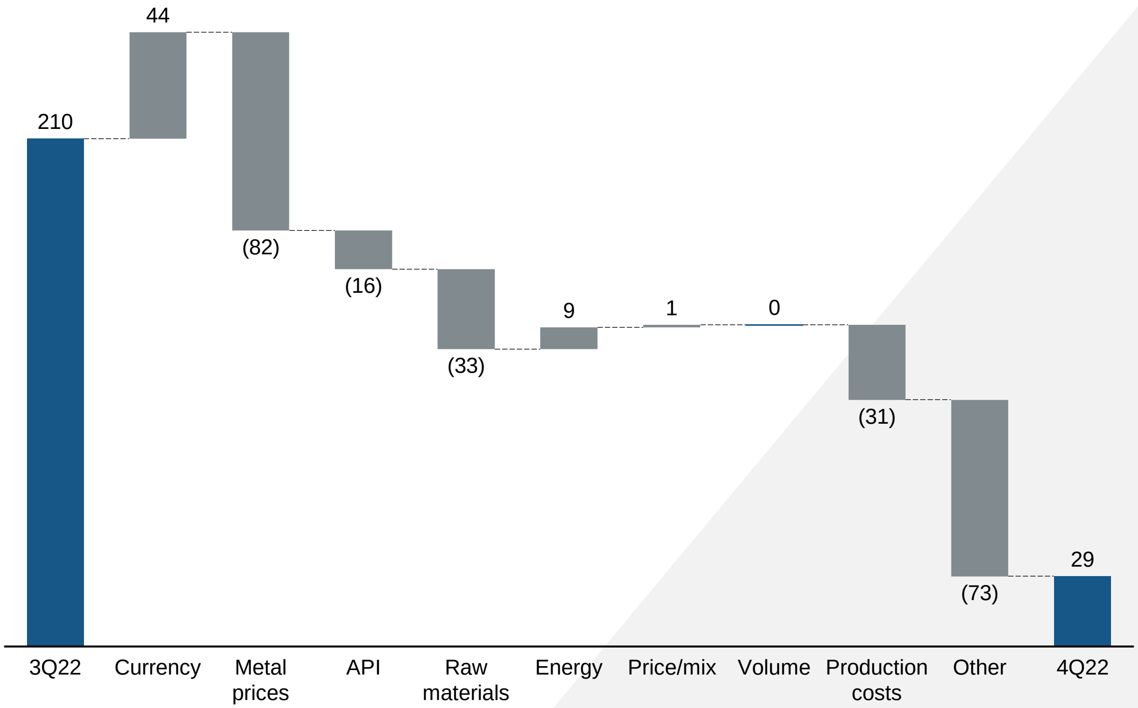
Quarterly and full year income statement summary

Millions, except per share amounts	4Q21	3Q22	**4Q22**	FY21	FY22
Income statement highlights					
Revenue	$3,340	$2,851	**$2,663**	$12,152	$12,451
Net (loss) income attributable to Alcoa Corporation	$(392)	$(746)	**$(374)**	$429	$(102)
(Loss) earnings per share[1]	$(2.11)	$(4.17)	**$(2.12)**	$2.26	$(0.57)
Adjusted income statement highlights					
Adjusted EBITDA excluding special items	$896	$210	**$29**	$2,763	$2,224
Adjusted net income (loss) attributable to Alcoa Corporation	$475	$(60)	**$(123)**	$1,297	$890
Adjusted earnings (loss) per share[1]	$2.50	$(0.33)	**$(0.70)**	$6.83	$4.83

1. In periods with net loss, share equivalents related to employee stock-based compensation were excluded from average shares as the impact was anti-dilutive

Adjusted EBITDA reflects lower sales prices and cost pressures

Adjusted EBITDA excluding special items sequential changes, $M

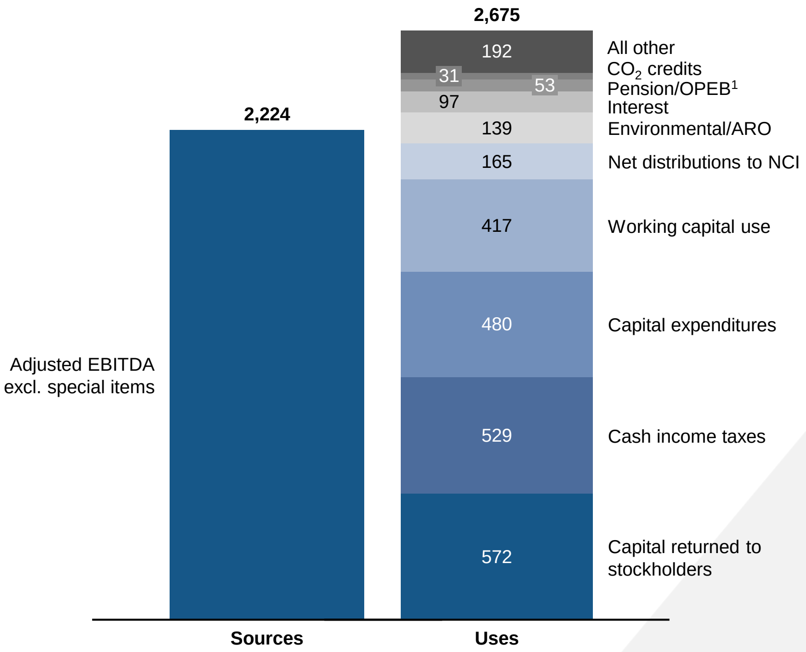


	3Q22	4Q22	Change
Bauxite	$15	$24	$9
Alumina	69	27	(42)
Aluminum	152	31	(121)
Segment total	236	82	(154)
Transformation	(19)	(22)	(3)
Intersegment eliminations	17	4	(13)
Other corporate	(24)	(35)	(11)
Total	$210	$29	$(181)

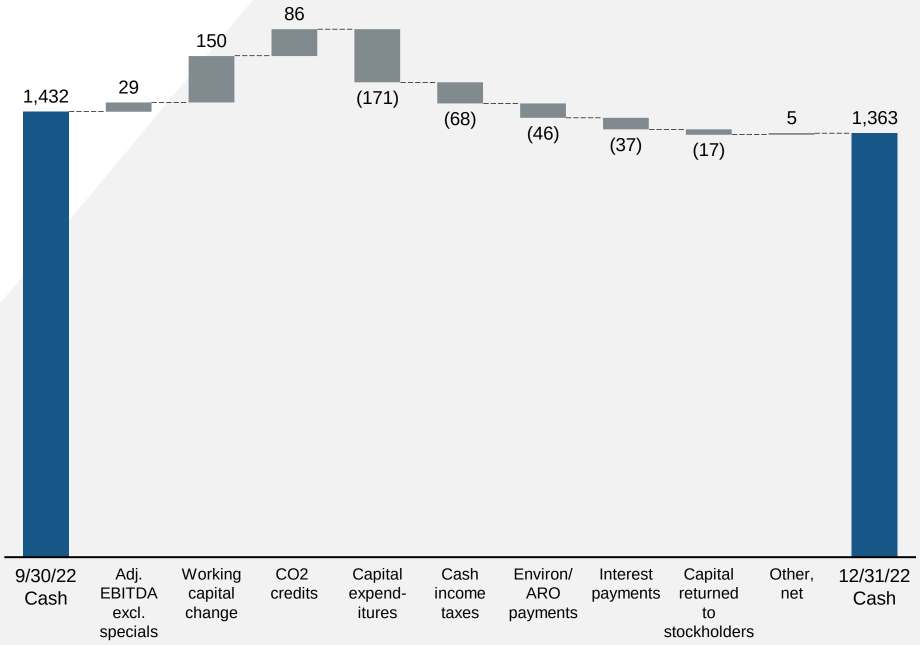
4Q22 cash stable with working capital release

2022 and sequential quarter cash flow information

2022 Cash flow information, $M



9/30/22 to 12/31/22 Cash changes, $M



1. Pension/OPEB funding of $53 million is reflected net of $18 million related expenses within Adjusted EBITDA

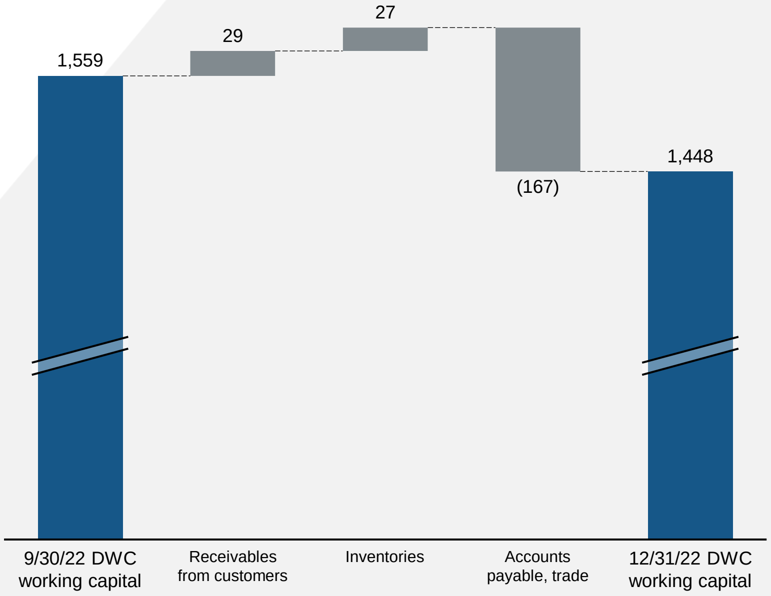
Continuing working capital improvement remains a focus

Key financial metrics for FY22 and DWC working capital changes

Key financial metrics

FY22 Return on equity	4Q22 Days working capital (DWC)
17.2%	**50 Days**
FY22 Capital returns to stockholders	**4Q22 Proportional adjusted net debt**
$572M	**$1.2B**
FY22 Free cash flow less net NCI distributions	**4Q22 Cash balance**
$177M	**$1.4B[1]**

4Q22 DWC working capital changes, $M

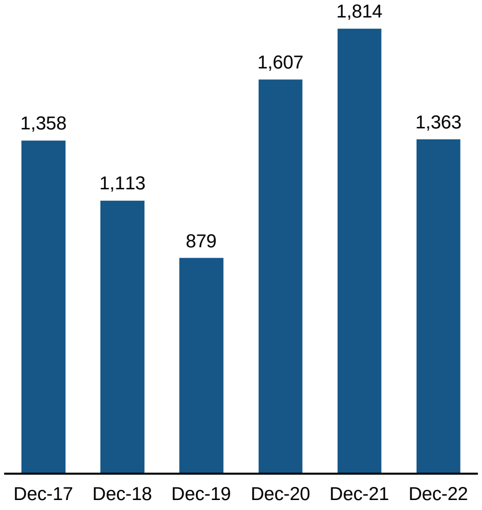


1. Excludes $111 million in restricted cash

Strong cash and debt profiles provide financial stability

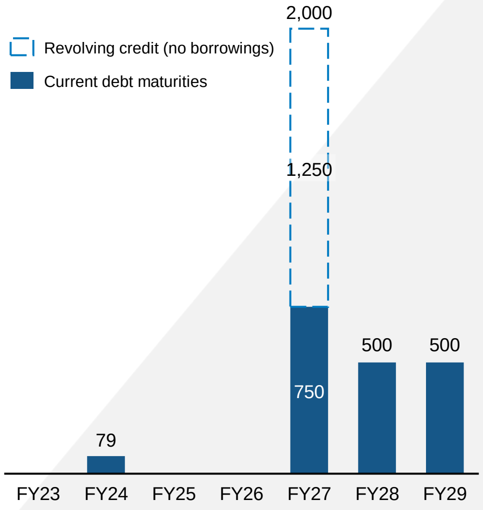
Summary of cash, liquidity, positions and cash uses

Year end cash balance, $M



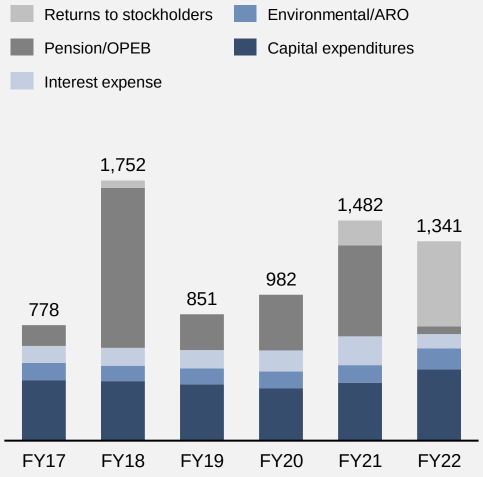
- Cash of $1.4 billion as of December 31, 2022 excludes restricted cash of $111 million

Debt maturity profile and available credit, $M



- No significant debt maturities until 2027; no cash borrowings against revolving credit facility of $1.25 billion

Key cash outflows, 2017 to 2022, $M



- Total pension funding declined from $0.6 billion in FY21 to $0.1 billion in FY22

2023 Outlook

FY22 and FY23 Key metrics

Income statement excl. special items impacts

	FY22 Actual	FY23 Outlook
Bauxite shipments (Mdmt)[1]	43.0	N/A
Alumina shipments (Mmt)	13.1	12.7 – 12.9
Aluminum shipments (Mmt)	2.6	2.5 – 2.6
Transformation (adj. EBITDA impacts)	$(66)M	~$(80)M
Intersegment eliminations (adj. EBITDA impacts)	$143M	Varies
Other corporate (adj. EBITDA impacts)	$(128)M	~$(130)M
Depreciation, depletion and amortization	$617M	~$645M
Non-operating pension/OPEB expense	$60M	~$15M
Interest expense	$106M	~$110M
Operational tax expense[2]	30.0%	Varies
Net income of noncontrolling interest	$143M	40% of AWAC NI

Cash flow impacts

	FY22 Actual	FY23 Outlook
Pension / OPEB required cash funding	$72M	~ $75M
Additional pension funding	-	Will vary based on market conditions and cash availability
Early debt repayment	-	
Stock repurchases and dividends	$572M	
Return-seeking capital expenditures[3]	$72M	~$115M
Sustaining capital expenditures[3]	$408M	~$485M
Payment of prior year income taxes[4]	$324M	~$175M
Current period cash taxes[2]	$205M	Varies
Environmental and ARO payments[5]	$139M	~$195M
Impact of restructuring and other charges	$39M	TBD

Additional market sensitivities and business information are included in the appendix.

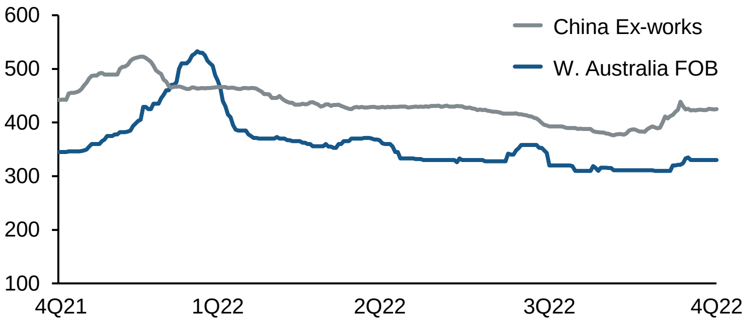
1. In 2023, the Company will combine the Bauxite and Alumina segments and report financial results for the following two segments: (i) Alumina and (ii) Aluminum
2. Estimate will vary with market conditions and jurisdictional profitability
3. AWAC portion of FY23 outlook: ~50% of return-seeking capital expenditures and ~60% of sustaining capital expenditures
4. Net of pending tax refunds
5. As of December 31, 2022, the environmental remediation reserve balance was $284M and the ARO liability was $828M

Volatile prices, high materials costs; 2022 markets end balanced

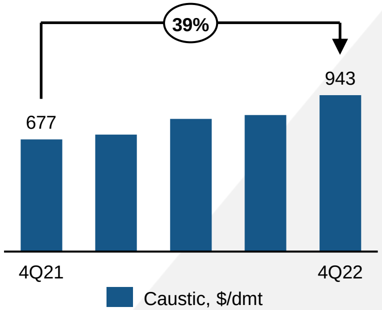
2022 Key market information

Alumina

Alumina index prices, $/tonne



Average market prices of key raw materials[2]

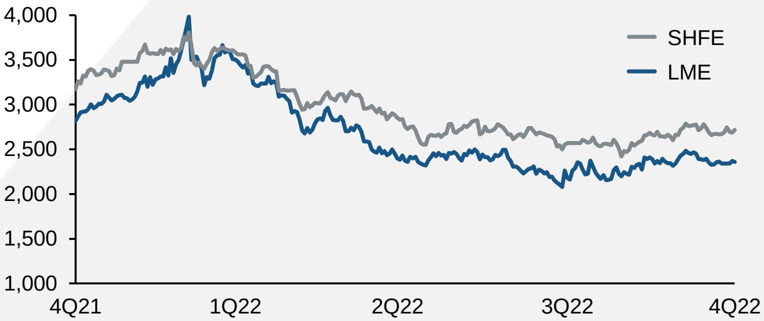


2022 Alumina Market surplus/(deficit), Mmt[1]

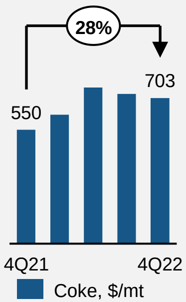
RoW	China	Global
1.2	(1.1)	0.1

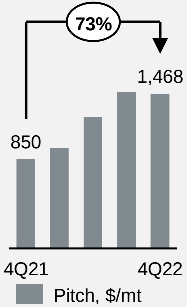
Aluminum

Aluminum index prices, $/tonne



Average market prices of key raw materials[2]





2022 Aluminum Market surplus/(deficit), Mmt[1]

RoW	China	Global
(0.3)	(0.2)	(0.5)

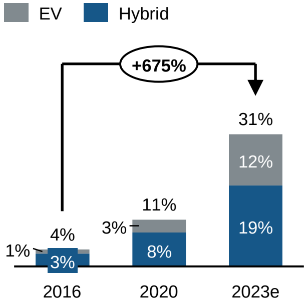
Sources: 1. CRU and Alcoa analysis; 2. Platts, Advisian, CMA (HIS), Baiinfo

Market trends expected to support continuing improvement

Comparison of key positive market factors, 2016 – 2023

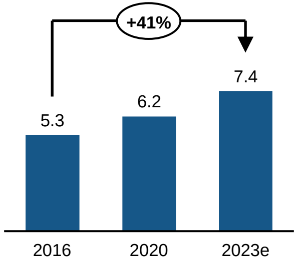
Decarbonization trends in transportation and packaging expected to continue driving demand

Global market share of light vehicles by engine type



- BMW set to increase share of battery-electric vehicles to 15 percent of total sales in 2023
- Ford announced plans to double production of EV Lightning pickup trucks in 2023
- China New Energy Vehicle sales doubled in 2022, expected to grow 35 percent in 2023
- The U.S. Inflation Reduction Act expected to support the adoption of EVs

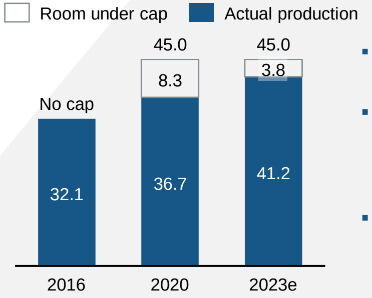
Global aluminum can stock consumption, Mmt



- The switch to aluminum containers expected to continue as ESG standards remain in focus
- Global can stock consumption is expected to increase in 2023 despite inflationary pressures
- European legislation expected to continue providing further upside potential supporting aluminum packaging against single-use

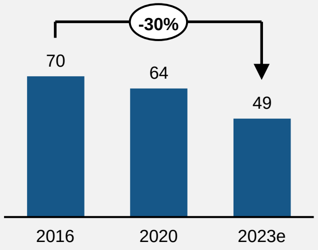
Chinese capacity cap and lower global inventories expected to constrain aluminum supply

Chinese primary production, Mmt



- Removal of 45Mmt capacity cap would conflict with China's decarbonization strategy
- Chinese operating capacity expected to increase from 40.1 to 41.2Mmt in 2023, driven by ramp-ups and restarts of hydro-powered relocation projects in SW China
- China's increased export tariff on P1020 in 2023 strengthens view that China does not intend to be an exporter of primary aluminum

Global inventories, days of consumption[1]



- Stock levels in relation to consumption expected to remain historically low in 2023 compared to previous 10-year average of 77 days
- Low aluminum inventories could be insufficient if demand normalizes in China or RoW

Sources: CRU, LMC 1. Estimate of year end primary inventories, excluding fake semis

2022 Actions addressed current needs and future opportunities

Highlighting notable 2022 actions

Mitigated impacts of challenging market conditions	✓ Curtailed San Ciprián smelter in Spain; signing restart power contracts ✓ Partially curtailed Lista smelter in Norway *(31kmtpy)*	✓ Partially curtailed San Ciprián refinery in Spain *(800kmtpy)* ✓ Maintained partial curtailment of Warrick smelter in Indiana *(54kmtpy)*
Maintained strong balance sheet and provided capital returns to stockholders	✓ 4Q22 cash balance of \$1.4B, proportional adj. net debt of \$1.2B ✓ Achieved investment grade credit rating, amended revolving credit facility	✓ Paid \$72M in quarterly dividends; share repurchases of \$500M ✓ Purchased group annuities, transferred \$1.0B of pension risks
Completed and progressed strategic restarts; announced creep projects	✓ Completed restart of Portland smelter in Australia ✓ Progressed restart of Alumar smelter in Brazil	✓ Announced 2026 capacity increase at Mosjøen smelter in Norway ✓ Announced 2023 casting project at Deschambault smelter in Canada
Continued to advance sustainably and further breakthrough technologies	✓ Announced EcoLum™ sales contracts with Hellenic Cables and Speira ✓ Earned ASI certifications at Massena and Pocos de Caldas operations	✓ Continued development of ELYSIS™ commercial sized cells in Quebec ✓ Announced grant from Australian government for Refinery of the Future

Focused on further development and improvement in 2023

Key areas of focus for 2023

Operational Excellence	Cost and Financial Management	Technology and Sustainability Opportunities
▪ Address Western Australia bauxite quality and gas supply ▪ Improve process and system stability and performance ▪ Continue progress of Alumar smelter restart ▪ Resolve San Ciprián refinery and Lista smelter energy ▪ Prepare for San Ciprián smelter restart	▪ Sharpen cost focus throughout organization ▪ Maintain strong balance sheet and liquidity ▪ Capture benefits of declining input costs ▪ Investigate further pension de-risking as market allows	▪ Continue ELYSIS full scale reduction cell development and progress other elements of technology road map ▪ Continue to grow Sustana™ products margins ▪ Expand upon position as supplier of choice ▪ Continue progress toward 2025 sustainability targets

2022 displayed aluminum cycle; long term fundamentals remain

FY22 Summary

- **Favorable market dynamics in 1H22** led to Adjusted EBITDA of ~$2.0B, stockholder returns of $387M, and ending cash balance of $1.6B; **Challenging market dynamics in 2H22** led to Adjusted EBITDA of $0.2B, stockholder returns of $185M, and ending cash balance of $1.4B
- **Positive long term aluminum fundamentals** driven by decarbonization remain formative, expected to continue developing in 2023
- **Took actions in 2022 and continuing actions in 2023** to improve and operate as a low-cost, sustainable producer, aligned with our vision to reinvent the aluminum industry

Maximizing value creation through balanced uses of cash

Capital allocation framework considerations

Capital allocation framework

Maintain strong balance sheet through the cycle

Capital expenditures to sustain and improve existing operations

Maximize value creation

Return cash to stockholders

Transform portfolio

Position for growth

Maximize value creation

Return cash to stockholders

- FY22 dividend payments totaled $72 million
- FY22 stock repurchases totaled $500 million

Transform portfolio

- Completed restart of portion of Portland smelter and continuing restart of Alumar smelter production based on renewable energy
- Preparing for restart of San Ciprián smelter

Position for value creating growth; key timeframe 2024 - 2025

- Implement breakthrough technologies, when proven, with potential to transform the industry
- Fund projects that are expected to provide returns to stockholders greater than cost of capital

Quarterly income statement

Quarterly income statement

Millions, except realized prices and per share amounts	4Q21	3Q22	**4Q22**	Prior Year Change	Sequential Change
Realized primary aluminum price ($/mt)	$3,382	$3,204	**$2,889**	$(493)	$(315)
Realized alumina price ($/mt)	$407	$371	**$342**	$(65)	$(29)
Revenue	$3,340	$2,851	**$2,663**	$(677)	$(188)
Cost of goods sold	2,383	2,668	**2,596**	213	(72)
SG&A and R&D expenses	78	51	**73**	(5)	22
Depreciation, depletion and amortization	165	149	**147**	(18)	(2)
Other (income) expense, net	(298)	35	**46**	344	11
Interest expense	28	25	**26**	(2)	1
Restructuring and other charges, net	1,055	652	**(6)**	(1,061)	(658)
Total costs and expenses	3,411	3,580	**2,882**	(529)	(698)
Loss before income taxes	(71)	(729)	**(219)**	(148)	510
Provision for income taxes	298	40	**180**	(118)	140
Net loss	(369)	(769)	**(399)**	(30)	370
Less: Net income (loss) attributable to noncontrolling interest	23	(23)	**(25)**	(48)	(2)
Net loss attributable to Alcoa Corporation	$(392)	$(746)	**$(374)**	$18	$372
Loss per share	$(2.11)	$(4.17)	**$(2.12)**	$(0.01)	$2.05
Average shares[1]	185.7	178.8	**177.0**	(8.7)	(1.8)

1. In periods with net loss, share equivalents related to employee stock-based compensation were excluded from average shares as the impact was anti-dilutive

Special items

Breakdown of special items by income statement classification – gross basis

Millions, except per share amounts	4Q21	3Q22	**4Q22**	**Description of significant 4Q22 special items**
Net (loss) attributable to Alcoa Corporation	$(392)	$(746)	**$(374)**	
Loss per share[1]	$(2.11)	$(4.17)	**$(2.12)**	
Special items	$867	$686	**$251**	
Cost of goods sold	16	*77*	***35***	*Alumar and Portland smelter restart costs*
SG&A and R&D expenses	1	*1*	***-***	
Restructuring and other charges, net	1,055	*652*	***(6)***	
Interest	-	*-*	***-***	
Other (income) expense, net	(249)	*(6)*	***29***	*Mark to market energy contracts*
Provision for income taxes	107	*(22)*	***196***	*Valuation allowance on Brazilian deferred tax assets, tax on special items*
Noncontrolling interest	(63)	*(16)*	***(3)***	*Partner's share of special items*
Adjusted net income (loss) attributable to Alcoa Corporation	$475	$(60)	**$(123)**	
Adjusted earnings (loss) per share[1]	$2.50	$(0.33)	**$(0.70)**	

1. In periods with net loss, share equivalents related to employee stock-based compensation were excluded from average shares as the impact was anti-dilutive

Quarterly income statement excluding special items

Quarterly income statement excluding special items

Millions, except realized prices and per share amounts	4Q21	3Q22	**4Q22**	Prior Year Change	Sequential Change
Realized primary aluminum price ($/mt)	$3,382	$3,204	**$2,889**	$(493)	$(315)
Realized alumina price ($/mt)	$407	$371	**$342**	$(65)	$(29)
Revenue	$3,340	$2,851	**$2,663**	$(677)	$(188)
Cost of goods sold	2,367	2,591	**2,561**	194	(30)
COGS % of Revenue	70.9%	90.9%	**96.2%**	25.3% pts.	5.3% pts.
SG&A and R&D expenses	77	50	**73**	(4)	23
SG&A and R&D % of Revenue	2.3%	1.8%	**2.7%**	0.4% pts.	0.9% pts.
Adjusted EBITDA	896	210	**29**	(867)	(181)
Depreciation, depletion and amortization	165	149	**147**	(18)	(2)
Other (income) expenses, net	(49)	41	**17**	66	(24)
Interest expense	28	25	**26**	(2)	1
Provision for income taxes	191	62	**(16)**	(207)	(78)
Operational tax rate	25.5%	(901.8)%	**9.5%**	(16.0)% pts.	911.3% pts.
Adjusted net income (loss)	561	(67)	**(145)**	(706)	(78)
Less: Adjusted net income (loss) attributable to noncontrolling interest	86	(7)	**(22)**	(108)	(15)
Adjusted net income (loss) attributable to Alcoa Corporation	$475	$(60)	**$(123)**	$(598)	$(63)
Adjusted earnings (loss) per share	$2.50	$(0.33)	**$(0.70)**	$(3.20)	$(0.37)
Average shares[1]	189.9	178.8	**177.0**	(12.9)	(1.8)

1. In periods with net loss, share equivalents related to employee stock-based compensation were excluded from average shares as the impact was anti-dilutive

4Q22 Financial summary

Three months ending December 31, 2022, excluding special items

Millions	Bauxite	Alumina	Aluminum[3]	Transformation	Intersegment eliminations	Other corporate	Alcoa Corporation
Total revenue	$232	$1,185	$1,834	$2	$(595)	$5	$2,663
Third-party revenue	$68	$756	$1,832	$2	-	$5	$2,663
Adjusted EBITDA[1]	$24	$27	$31	$(22)	$4	$(35)	$29
Adjusted EBITDA margin %	*10.3%*	*2.3%*	*1.7%*				*1.1%*
Depreciation, depletion and amortization	$29	$40	$73	-	-	$5	$147
Other expenses, net[2]	-	$17	$5	-	-	$(5)	$17
Interest expense							$26
Provision for income taxes							$(16)
Adjusted net loss							$(145)
Net loss attributable to noncontrolling interest							$(22)
Adjusted net loss attributable to Alcoa Corporation							$(123)

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. Third-party energy sales volume, revenue and adjusted EBITDA in Brazil were 656GWh, $8 million and $(6) million, respectively

4Q22 Adjusted EBITDA drivers by segment

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

Segment	Adjusted EBITDA 3Q22	Currency	Metal prices	API	Raw materials	Energy	Price/mix	Volume	Production costs	Other	Adjusted EBITDA 4Q22
Bauxite	$15	3	0	0	0	1	1	4	1	(1)	$24
Alumina	$69	9	0	(52)	(6)	34	8	16	(20)	(31)	$27
Aluminum	$152	32	(82)	27	(27)	(26)	(8)	(20)	(12)	(5)	$31
Segment Total	**$236**	**44**	**(82)**	**(25)**	**(33)**	**9**	**1**	**0**	**(31)**	**(37)**	**$82**

Income statement information

FY21 and FY22 Annual income statement

Millions, except realized prices and per share amounts	FY21 Reported	FY21 Special items	FY21 Adjusted excl. special items	FY22 Reported	FY22 Special items	FY22 Adjusted excl. special items
Realized primary aluminum price ($/mt)	$2,879		$2,879	$3,457		$3,457
Realized alumina price ($/mt)	$326		$326	$384		$384
Revenue	$12,152		$12,152	$12,451		$12,451
Cost of goods sold	9,153	$(18)	9,135	10,212	$(219)	9,993
SG&A and R&D expenses	258	(4)	254	236	(2)	234
Depreciation, depletion and amortization	664		664	617		617
Other (income) expenses, net	(445)	377	(68)	(139)	163	24
Interest expense	195	(54)	141	106		106
Restructuring and other charges, net	1,128	(1,128)	-	696	(696)	-
Total costs and expenses	10,953	(827)	10,126	11,728	(754)	10,974
Income before income taxes	1,199	827	2,026	723	754	1,477
Provision for income taxes	629	(107)	522	664	(220)	444
Net income	570	934	1,504	59	974	1,033
Less: Net income attributable to noncontrolling interest	141	66	207	161	(18)	143
Net income (loss) attributable to Alcoa Corporation	$429	$868	$1,297	$(102)	$992	$890
Earnings (loss) per share	$2.26	$4.57	$6.83	$(0.57)	$5.40	$4.83
Average shares[1]	189.9		189.9	180.6		184.3
Adjusted EBITDA	$2,741	$22	$2,763	$2,003	$221	$2,224
COGS % revenue	75.3%		75.2%	82.0%		80.3%
SG&A and R&D % revenue	2.1%		2.1%	1.9%		1.9%
Tax rate	52.5%		25.8%	91.9%		30.0%

1. In periods with net loss, share equivalents related to employee stock-based compensation were excluded from average shares as the impact was anti-dilutive

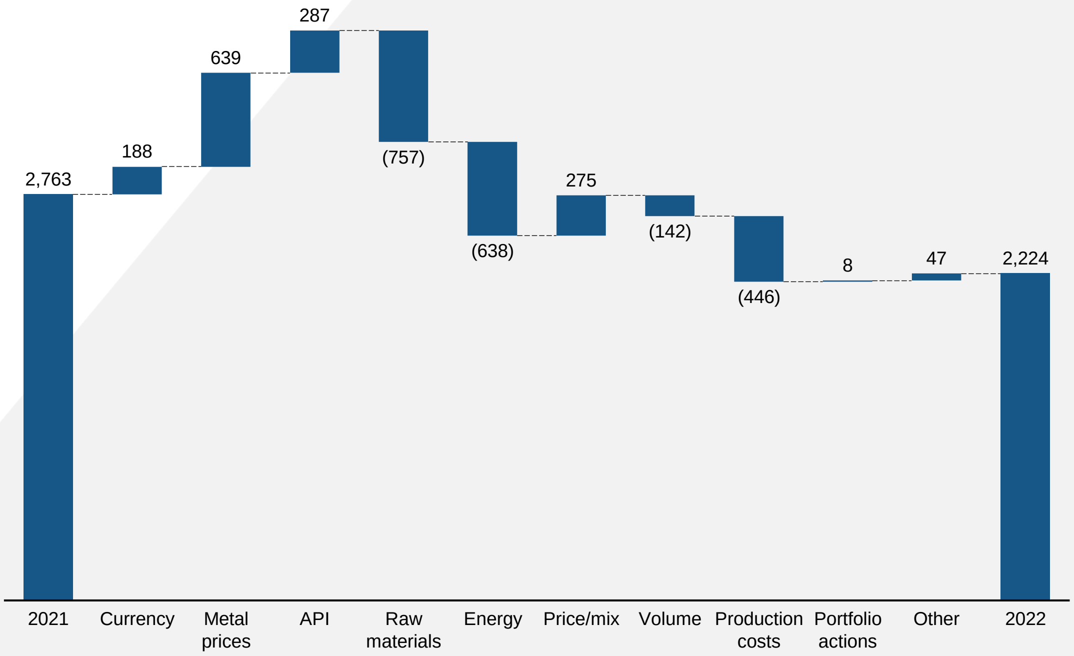
FY22 Financial information

FY22 Highlights and annual change inputs

Full year financial highlights

	FY21	FY22
Realized primary aluminum price ($/mt)	$2,879	$3,457
Realized alumina price ($/mt)	$326	$384
Revenue, $M	$12,152	$12,451
Net income (loss) attributable to Alcoa, $M	$429	$(102)
Adjusted net income attributable to Alcoa, $M	$1,297	$890
Adjusted earnings per share	$6.83	$4.83
Adjusted EBITDA excl. special items, $M	$2,763	$2,224

Adjusted EBITDA excl. special items bridge, $M



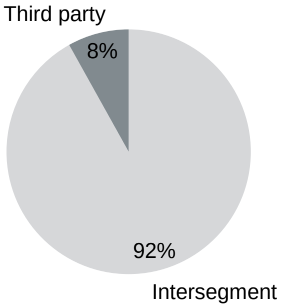
Aluminum value chain

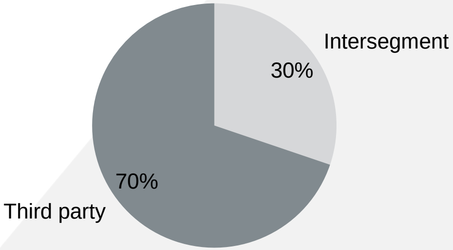
FY22 Alcoa product shipments by segment

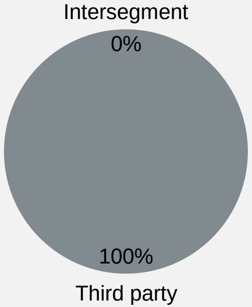
43.0 Mdmt shipments

13.1 Mmt shipments

2.6 Mmt shipments



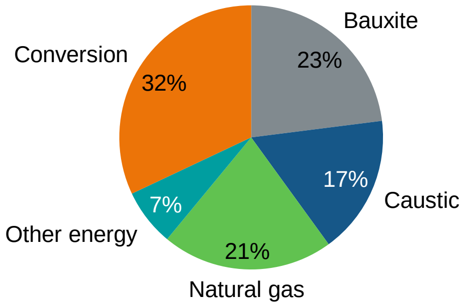




Composition of alumina and aluminum production costs

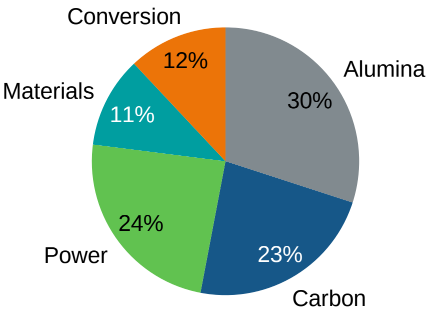
Alcoa 4Q22 production cash costs

Alumina refining



Input cost	Inventory flow	Pricing convention	FY23 annual cost sensitivity
Caustic soda	5 - 6 Months	Quarterly, Spot	$9M per $10/dmt
Natural gas	1 Month	Quarterly, 91% with CPI adjustment	$10M per $0.10/GJ
Fuel oil	1 - 2 Months	Prior Month	$2M per $1/barrel

Aluminum smelting



Input cost	Inventory flow	Pricing convention	FY23 annual cost sensitivity
Alumina	~2 Months	API on a 6 to 8 month average	$38M per $10/mt
Petroleum coke	1 - 2 Months	Quarterly	$7M per $10/mt
Coal tar pitch	1 - 2 Months	Quarterly	$2M per $10/mt

2023 Business information

Estimated annual Adjusted EBITDA sensitivities

$Millions Segment	LME + $100/mt	API + $10/mt	Midwest + $100/mt	Europe + $100/mt	Japan + $100/mt	AUD + 0.01 0.66[1]	BRL + 0.10 5.26[1]	CAD + 0.01 1.36[1]	EUR + 0.01 1.02[1]	ISK + 10 143.64[1]	NOK + 0.10 10.23[1]
Bauxite						(4)	3				
Alumina		103				(19)	5		(1)		
Aluminum	196	(42)	132	63	25	(3)	(1)	4	(1)	8	1
Total	196	61	132	63	25	(26)	7	4	(2)	8	1

Pricing conventions

Segment	Third party revenue
Bauxite	▪ Negotiated prices
Alumina	▪ ~95% of third-party smelter grade alumina priced on API/spot ▪ API based on prior month average of spot prices
Aluminum	▪ LME + regional premium + product premium ▪ Primary aluminum 15-day lag ▪ Brazilian hydroelectric sales at market prices

Regional premium breakdown

Regional premiums	% of 2023 Primary aluminum shipments
Midwest	~50%
Rotterdam Duty Paid	~40%
CIF Japan	~10%

1. Average 4Q22 exchange rates

Currency impacts on Adjusted EBITDA

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

Balance sheet revaluation impact

	AUD	BRL	CAD	EUR	ISK	NOK	Total
4Q21 revaluation	(0.9)	1.1	0.5	(1.8)	(1.2)	(1.7)	(4.0)
3/31/22 currencies	0.75	4.75	1.25	1.11	127.86	8.67	
1Q22 revaluation	(1.1)	(11.0)	(2.6)	(3.3)	(0.9)	(2.5)	(21.4)
1Q22 sequential impact	(0.2)	(12.1)	(3.1)	(1.5)	0.3	(0.7)	(17.4)
6/30/22 currencies	0.69	5.22	1.29	1.05	132.90	9.80	
2Q22 revaluation	18.4	14.8	(0.9)	(1.3)	(2.4)	(2.1)	26.5
2Q22 sequential impact	19.5	25.8	1.7	2.0	(1.5)	0.4	47.9
9/30/22 currencies	0.65	5.39	1.37	0.97	144.63	10.80	
3Q22 revaluation	1.4	3.7	2.1	(1.5)	(0.3)	(8.7)	(3.3)
3Q22 sequential impact	(17.0)	(11.1)	3.0	(0.2)	2.1	(6.6)	(29.8)
12/31/22 currencies	0.67	5.27	1.36	1.06	142.96	9.91	
4Q22 revaluation	(4.7)	2.0	(6.5)	5.5	7.7	10.4	14.4
4Q22 revaluation sequential impact	**(6.1)**	**(1.7)**	**(8.6)**	**7.0**	**8.0**	**19.1**	**17.7**

Currency annual sensitivity and actual impact

	+0.01 AUD	+0.10 BRL	+0.01 CAD	+0.01 EUR	+ 10 ISK	+0.10 NOK	Total
2022 EBITDA sensitivity	**(27)**	**8**	**4**	**(2)**	**10**	**3**	
4Q21 currency avg.	0.73	5.58	1.26	1.14	129.94	8.73	
1Q22 currency avg.	0.72	5.25	1.27	1.12	128.18	8.85	
1Q22 currency impact	1.9	(5.0)	0.6	0.1	(0.4)	0.8	(2.0)
2Q22 currency avg.	0.72	4.90	1.27	1.07	130.25	9.38	
2Q22 currency impact	1.9	(5.1)	0.6	0.1	0.5	3.6	1.6
3Q22 currency avg.	0.68	5.24	1.30	1.01	138.48	9.95	
3Q22 currency impact	25.9	8.9	2.5	7.1	3.1	4.9	52.4
4Q22 currency avg.	0.66	5.26	1.36	1.02	143.64	10.23	
4Q22 currency impact	**17.8**	**0.3**	**4.9**	**(0.3)**	**1.3**	**1.9**	**25.9**
Total 4Q22 EBITDA currency impact[1]	**11.7**	**(1.4)**	**(3.7)**	**6.7**	**9.3**	**21.0**	**43.6**

Totals may not tie due to rounding

1. Total EBITDA currency impact includes balance sheet revaluation based on change in quarter end currency rates and income statement currency impacts based on change in quarterly average currency rates

Additional business considerations

Items expected to impact Adjusted EBITDA and Net income for 1Q23

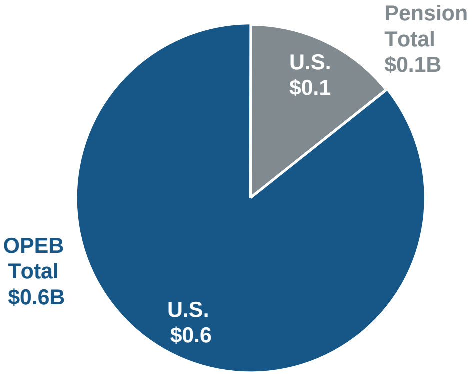
- Expected sequential impacts on Adjusted EBITDA excluding special items, excluding indexed sales prices or currency impacts:
  - In the Alumina segment, we expect the approximately $25 million higher costs from the Western Australia gas supply disruption to be offset by the non-recurrence of the Alumar ARO adjustment.
  - In the Aluminum segment, we expect alumina costs to be favorable by $15 million. We expect Norwegian smelter costs be favorable by $70 million from the non-recurrence of CO_2 credit reversals and lower energy costs. Additionally, we expect $15 million lower raw material costs and $15 million lower production costs.
  - Estimate intersegment profit elimination for every $10/mt decrease in API prices to be a $7 million to $9 million favorable impact based on comparison of the average API of the last two months of each quarter (API is based on average of prior month spot prices); consider intersegment eliminations as component of minority interest calculation.
  - Computed using quarter end exchange rates, 4Q22 Adjusted EBITDA included a favorable balance sheet revaluation impact of $14 million ($18 million favorable sequentially compared to 3Q22); impacts related to balance sheet revaluation are not incorporated into the currency sensitivities provided for Adjusted EBITDA.
- Below Adjusted EBITDA:
  - Other expense is expected to be unfavorable by ~$45 million sequentially on equity contributions to Elysis and lower Ma'aden equity income.
  - Based on recent pricing, the Company expects 1Q23 operational tax expense to approximate $5 to $15 million.

- Beyond 1Q23, the Company is reducing the available alumina grade at the Huntly mine to provide additional time for an extended mining approvals process; we expect lower Alumina Segment Adjusted EBITDA of approximately $55 million per quarter in comparison to 4Q22, after excluding $35 million of nonrecurrence of the Alumar refinery ARO adjustment and certain other non-recurring expenses, starting in 2Q23 and continuing through 4Q23.

Pension and OPEB summary

Net pension and OPEB liability and financial impacts

Net liability as of December 31, 2022[1]



Estimated GAAP pension funding status as of December 31, 2022

- U.S. greater than 90%
- Worldwide greater than 95%

U.S. pension contributions currently not tax deductible

Estimated financial impacts, $M

Expense impact	2023
Segment pension	$10
Segment OPEB	5
Corporate pension & OPEB	-
Total adj. EBITDA impact	**15**
Non-operating	15
Special items (curtailment/settlement)	-
Total expense impact	**$30**

Cash flow impact	2023
Minimum required pension funding[2]	$20
OPEB payments	55
Total cash impact	**$75**

1. In 4Q21, the asset allocation for the U.S. pension plans transitioned to a 90% hedge of U.S. Treasury interest rate risk for the U.S. gross pension liability, limiting the net exposure to changes in pension discount rates.
2. U.S. minimum required pension cash funding for 2023 is $0 as it is Alcoa's intention to use prefunding balance.

Investments summary

Investments listing and income statement location

Investee	Country	Nature of investment[4]	Ownership interest	Carrying value as of December 31, 2022	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				*$731M*	*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%		
Pechiney Reynolds Quebec, Inc.[3]	Canada	Aluminum smelter	50.0%		
Subtotal other				*$412M*	*Cost of goods sold*
Total investments				**$1,143M**	

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 (Ma'aden) and 25.1% by Alcoa Corporation.
2. Halco Mining, Inc. owns 100% of Boké Investment Company, which owns 51% of Compagnie des Bauxites de Guinée (CBG).
3. Pechiney Reynolds Quebec, Inc. owns a 50.1% interest in the Bécancour smelter in Quebec, Canada thereby entitling Alcoa Corporation to a 25.05% interest in the smelter. Through two wholly-owned Canadian subsidiaries, Alcoa Corporation also owns 49.9% of the Bécancour smelter.
4. Each of the investees either owns the facility listed or has an ownership interest in an entity that owns the facility listed.
5. A portion or all of each of these ownership interests are held by majority-owned subsidiaries that are part of AWAC.

Alcoa sustainability goals

Alcoa strategic long-term sustainability goals, baseline and progress

Goal	Description	2015 Baseline	2021 Progress
Safety	Zero fatalities and serious injuries (life-threatening, life-altering injury or illness)	5 fatal or serious injuries/illnesses	0 fatal or serious injury/illness
Diversity and inclusion	Attain an inclusive 'everyone culture' that reflects the diversity of the communities in which we operate	N/A	17.2% global women
Mine rehabilitation	Maintain a corporate-wide running 5-year average ratio of 1:1 or better for active mining disturbance (excluding long-term infrastructure) to mine rehabilitation	N/A	0.82:1
Bauxite residue	From a 2015 baseline, reduce bauxite residue land requirements per metric ton of alumina produced by 15% by 2030	53.2 m2/kmt Ala	14.8% reduction
Waste	From a 2015 baseline, reduce landfilled waste 15% by 2025 and 25% by 2030. Baseline restated to reflect divestiture of Warrick Rolling.	131.7 mt	36.0% reduction
Water	From a 2015 baseline, reduce the intensity of our total water use from Alcoa-defined water-scarce locations by 5% by 2025 and 10% by 2030	3.37 m3/mt	0.8% reduction
Greenhouse gas emissions	Align our greenhouse gas (direct + indirect) emissions reduction targets with the 2ºC decarbonization path by reducing greenhouse gas intensity by 30% by 2025, and 50% by 2030 from a 2015 baseline	7.10 mt CO_2e/mt	23.9% reduction
Sustainable value chain	By 2022, implement a social management system at all locations, including the definition of performance metrics and long-term goals to be accomplished by 2025 and 2030	N/A	Launched SP360 – Alcoa Social Management System in 2021

Source: 2021 Sustainability Report

Production and capacity information

Alcoa Corporation annual consolidated amounts as of December 31, 2022

Bauxite production, Mdmt

Mine	Country	2022 Production
Darling Range	Australia	31.4
Juruti	Brazil	4.9
Poços de Caldas	Brazil	0.4
Trombetas (MRN)	Brazil	0.5
Boké (CBG)	Guinea	3.6
Al Ba'itha[1]	Saudi Arabia	1.3
Total		**42.1**

Alumina refining, kmt

Facility	Country	Capacity	Curtailed
Kwinana	Australia	2,190	-
Pinjarra	Australia	4,700	-
Wagerup	Australia	2,879	-
Poços de Caldas	Brazil	390	214
São Luís (Alumar)	Brazil	2,084	-
San Ciprián	Spain	1,600	800
Total		**13,843**	**1,014**
Ras Al Khair[1]	*Saudi Arabia*	*452*	-

Aluminum smelting, kmt

Facility	Country	Capacity	Curtailed
Portland	Australia	197	11
São Luís (Alumar)[2]	Brazil	268	157
Baie Comeau	Canada	314	-
Bécancour	Canada	350	-
Deschambault	Canada	287	-
Fjarðaál	Iceland	351	-
Lista	Norway	95	31
Mosjøen	Norway	200	-
San Ciprián[3]	Spain	228	228
Intalco	U.S.	279	279
Massena West	U.S.	130	-
Warrick	U.S.	269	162
Total		**2,968**	**868**
Ras Al Khair[1]	*Saudi Arabia*	*202*	-

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 September 20, 2021, the Company announced plans to restart its 60% share of the Alumar smelter in São Luís, Brazil, equivalent to 268,000 metric tons per year (mtpy) of aluminum capacity. Production began in the second quarter of 2022.
3. On December 29, 2021, the Company announced a two-year curtailment of the San Ciprián smelter's 228,000 metric tons of annual capacity, and a commitment by the Company to begin the restart of the smelter in January 2024. In January 2022, the smelter curtailment was completed.

Valuation framework

Valuation framework key considerations

			Description	FY22 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	$82M
	+	Alumina		$701M
	+	Aluminum	Economic value using market multiple of: i. Smelters, casthouses, and energy assets ii. Smelters and casthouses restart optionality	$1,492M
	-	Non-segment expenses (income)	Economic value using market multiple of: i. Net corporate expenses and Transformation	$51M
	=	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 $0.6B ($0.7B, >95% Alcoa; U.S. contributions not tax deductible), environmental & ARO liabilities of $0.8B ($1.1B, ~75% Alcoa)	
	+	Cash & equity investments[1]	Cash position of $1.3B ($1.4B, ~90% Alcoa) plus carrying value of investments in the Ma´aden joint venture and ELYSIS of $0.6B ($0.7B, ~85% Alcoa)	
	=	Equity value		

1. Dollar amounts reflect Alcoa Corporation's consolidated balance sheet values as of December 31, 2022. The "Alcoa" percentages exclude amounts attributable to Alcoa Corporation's partner in the AWAC JV.

Adjusted EBITDA reconciliation

Millions	4Q21	FY21	1Q22	2Q22	3Q22	4Q22	FY22
Net (loss) income attributable to Alcoa	**$(392)**	**$429**	**$469**	**$549**	**$(746)**	**$(374)**	**$(102)**
Add:							
Net income (loss) attributable to noncontrolling interest	23	141	84	125	(23)	(25)	161
Provision for income taxes	298	629	210	234	40	180	664
Other (income) expense, net	(298)	(445)	(14)	(206)	35	46	(139)
Interest expense	28	195	25	30	25	26	106
Restructuring and other charges, net	1,055	1,128	125	(75)	652	(6)	696
Depreciation, depletion and amortization	165	664	160	161	149	147	617
Adjusted EBITDA	**879**	**2,741**	**1,059**	**818**	**132**	**(6)**	**2,003**
Special items before tax and noncontrolling interest	17	22	13	95	78	35	221
Adjusted EBITDA excl. special items	**$896**	**$2,763**	**$1,072**	**$913**	**$210**	**$29**	**$2,224**

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.

Adj. net income (loss) attributable to Alcoa reconciliation

Millions	FY17	FY18	FY19	FY20	FY21	FY22
Net income (loss) attributable to Alcoa	**$279**	**$250**	**$(1,125)**	**$(170)**	**$429**	**$(102)**
Special items:						
Restructuring and other charges, net	309	527	1,031	104	1,128	696
Other special items	(9)	39	50	(103)	(301)	58
Discrete tax items and interim tax impacts	93	2	11	(26)	101	216
Tax impact on special items	(24)	(89)	(32)	(13)	6	4
Noncontrolling interest impact	(23)	(31)	(119)	(7)	(66)	18
Subtotal	**346**	**448**	**941**	**(45)**	**868**	**992**
Adjusted net income (loss) attributable to Alcoa	**$625**	**$698**	**$(184)**	**$(215)**	**$1,297**	**$890**

Adjusted net income (loss) attributable to Alcoa Corporation is a non-GAAP financial measure. Management believes this measure is meaningful to investors because management reviews the operating results of Alcoa Corporation excluding the impacts of restructuring and other charges, various tax items, and other special items (collectively, "special items"). There can be no assurances that additional special items will not occur in future periods. To compensate for this limitation, management believes it is appropriate to consider both Net income (loss) attributable to Alcoa Corporation determined under GAAP as well as Adjusted net income (loss) attributable to Alcoa Corporation.

Free cash flow reconciliation

Millions	4Q21	FY21	1Q22	2Q22	3Q22	4Q22	FY22
Cash provided from operations	$565	$920	$34	$536	$134	$118	$822
Capital expenditures	(153)	(390)	(74)	(107)	(128)	(171)	(480)
Free cash flow	**412**	**530**	**(40)**	**429**	**6**	**(53)**	**342**
Contributions from noncontrolling interest	13	21	46	37	67	64	214
Distributions to noncontrolling interest	(38)	(215)	(162)	(83)	(74)	(60)	(379)
Free cash flow less net distributions to noncontrolling interest	**$387**	**$336**	**$(156)**	**$383**	**$(1)**	**$(49)**	**$177**

Free cash flow and Free cash flow less net distributions to noncontrolling interest are non-GAAP financial measures. Management believes that these measures are meaningful to investors because management reviews cash flows generated from operations after taking into consideration capital expenditures and net distributions to noncontrolling interest. Capital expenditures are necessary to maintain and expand Alcoa Corporation's asset base and are expected to generate future cash flows from operations, while net distributions to noncontrolling interest are necessary to fulfill our obligations to our joint venture partners. It is important to note that Free cash flow and Free cash flow less net distributions to noncontrolling interest do not represent the residual cash flows available for discretionary expenditures since other non-discretionary expenditures, such as mandatory debt service requirements, are not deducted from the measure.

Net debt reconciliation

	FY16			FY17			FY18			FY19			FY20			FY21			FY22		
Millions	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.
Short-term borrowings	$1	$-	$1	$8	$-	$8	$-	$-	$-	$-	$-	$-	$77	$31	$46	$75	$30	$45	$-	$-	$-
Long-term debt due within one year	21	-	21	16	-	16	1	-	1	1	-	1	2	-	2	1	-	1	1	-	1
Long-term debt, less amount due within one year	1,424	1	1,423	1,388	7	1,381	1,801	34	1,767	1,799	31	1,768	2,463	-	2,463	1,726	-	1,726	1,806	32	1,774
Total debt	1,446	1	1,445	1,412	7	1,405	1,802	34	1,768	1,800	31	1,769	2,542	31	2,511	1,802	30	1,772	1,807	32	1,775
Less: Cash and cash equivalents	853	100	753	1,358	252	1,106	1,113	296	817	879	167	712	1,607	176	1,431	1,814	177	1,637	1,363	94	1,269
Net debt (net cash)	**593**	**(99)**	**692**	**54**	**(245)**	**299**	**689**	**(262)**	**951**	**921**	**(136)**	**1,057**	**935**	**(145)**	**1,080**	**(12)**	**(147)**	**135**	**444**	**(62)**	**506**
Plus: Net pension	1,818	14	1,804	2,280	(1)	2,281	1,354	5	1,349	1,482	18	1,464	1,503	28	1,475	263	(7)	270	122	(7)	129
Plus: OPEB Liability	1,286	30	1,256	1,218	27	1,191	973	23	950	848	22	826	892[1]	24	868[1]	710	22	688	536	16	520
Adjusted net debt	**$3,697**	**($55)**	**$3,752**	**$3,552**	**($219)**	**$3,771**	**$3,016**	**($234)**	**$3,250**	**$3,251**	**($96)**	**$3,347**	**$3,330**	**($93)**	**$3,423**	**$961**	**$(132)**	**$1,093**	**$1,102**	**$(53)**	**$1,155**

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. When cash exceeds total debt, the measure is expressed as net cash.

Adjusted net debt and proportional adjusted net debt are also non-GAAP financial measures. Management believes that these additional measures are meaningful to investors because management also assesses Alcoa Corporation's leverage position after considering available cash that could be used to repay outstanding debt and net pension/OPEB liability, net of the portion of those items attributable to noncontrolling interest (NCI).

1. Includes OPEB liabilities of approximately $83 million related to the Warrick rolling mill sale which was a negotiated estimate used at December 31, 2020 and subsequently trued up in 2021. Recorded in Liabilities held for sale.

Days working capital reconciliation

Millions	4Q21	1Q22	2Q22	3Q22	4Q22
Receivables from customers	$757	$952	$898	$749	$778
Add: Inventories	1,956	2,495	2,556	2,400	2,427
Less: Accounts payable, trade	1,674	1,645	1,752	1,590	1,757
DWC working capital	$1,039	$1,802	$1,702	$1,559	$1,448
Sales	$3,340	$3,293	$3,644	$2,851	$2,663
Number of days in the quarter	92	90	91	92	92
Days working capital[1]	**29**	**49**	**43**	**50**	**50**

Days working capital is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management uses its working capital position to assess Alcoa Corporation's efficiency in liquidity management.

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

Annalized Return on Equity (ROE)

ROE Reconciliation and calculation information as of December 31, 2022

Millions	2021	2022
Numerator:		
Net income (loss) attributable to Alcoa Corporation	$429	$(102)
Add: Special items[1]	868	992
ROE Adjusted Net income YTD	**$1,297**	**$890**
Denominator[2]:		
Total assets	$14,648	$15,341
Less: Total Liabilities	9,139	8,588
Less: Noncontrolling Interest	1,617	1,585
Shareholders' Equity	**$3,892**	**$5,168**
ROE	**33.3%**	**17.2%**

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

$$\text{2021 YTD ROE \%} = \frac{(\$429 + \$868)}{(\$14{,}648 - \$9{,}139 - \$1{,}617)} \times 100 = 33.3\%$$

$$\text{2022 YTD ROE \%} = \frac{(\$(102) + \$992)}{(\$15{,}341 - \$8{,}588 - \$1{,}585)} \times 100 = 17.2\%$$

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

Glossary of terms

Abbreviations listed in alphanumeric order

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

Abbreviation	Description
FOB WA	Freight on board Western Australia
FY##	Twelve months ending December 31
GAAP	Accounting principles generally accepted in the United States of America
GJ	Gigajoule
GWh	Gigawatt hour
ISK	Icelandic krona
JV	Joint venture
kmt/kdmt	Thousand metric tonnes/Thousand dry metric tonnes
LME	London Metal Exchange
LTM	Last twelve months
M	Million
Mdmt	Million dry metric tons
Mmt	Million metric tons
mt	Metric ton
NCI	Noncontrolling interest
NI	Net income
NOK	Norwegian krone
OPEB	Other postretirement employee benefits
PBT	Profit before taxes
Prop.	Proportional
R&D	Research and development
RoW	Rest of world
SEC	Securities and Exchange Commission
SG&A	Selling, general administrative and other
SHFE	Shanghai Futures Exchange
TBD	To be determined
U.S.	United States of America
USD	United States dollar
YTD, YoY	Year to date, year over year

Alcoa