



Advancing each generation.



2nd Quarter Earnings Conference

July 11, 2016

UPDATE (10/27/16): The original version of this presentation transposed two headings on page 31. The correct headings appear herein.

Important Information

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 that reflect Alcoa’s 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 aluminum, supply/demand balances, and growth of the aerospace, automotive, and other end markets; statements regarding targeted financial results or operating performance; statements about Alcoa’s strategies, outlook, business and financial prospects; and statements regarding the separation transaction. Forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties, and changes in circumstances that are difficult to predict. Although Alcoa 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) uncertainties as to the timing of the separation and whether it will be completed; (b) the possibility that various closing conditions for the separation may not be satisfied; (c) the impact of the separation on the businesses of Alcoa; (d) the risk that the businesses will not be separated successfully or such separation may be more difficult, time-consuming or costly than expected, which could result in additional demands on Alcoa’s resources, systems, procedures and controls, disruption of its ongoing business and diversion of management’s attention from other business concerns; (e) 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, alumina, and other products, and fluctuations in indexed-based and spot prices for alumina; (f) deterioration in global economic and financial market conditions generally; (g) unfavorable changes in the markets served by Alcoa; (h) the impact of changes in foreign currency exchange rates on costs and results; (i) increases in energy costs; (j) the inability to achieve the level of revenue growth, cash generation, cost savings, improvement in profitability and margins, fiscal discipline, or strengthening of competitiveness and operations anticipated from restructuring programs and productivity improvement, cash sustainability, technology advancements (including, without limitation, advanced aluminum alloys, Alcoa Micromill, and other materials and processes), and other initiatives; (k) Alcoa’s inability to realize expected benefits, in each case as planned and by targeted completion dates, from acquisitions, divestitures, facility closures, curtailments, or expansions, or joint ventures; (l) political, economic, and regulatory risks in the countries in which Alcoa operates or sells products; (m) the outcome of contingencies, including legal proceedings, government or regulatory investigations, and environmental remediation; (n) the impact of cyber attacks and potential information technology or data security breaches; and (o) the other risk factors discussed in Alcoa’s Form 10-K for the year ended December 31, 2015, and other reports filed with the U.S. Securities and Exchange Commission (SEC). Alcoa 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 discussed 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. These non-GAAP financial measures supplement our GAAP disclosures and should not be considered an alternative to the GAAP measure. 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. Alcoa has not provided a reconciliation of any forward-looking non-GAAP financial measures to the most directly comparable GAAP financial measures, due primarily to variability and difficulty in making accurate forecasts and projections, as not all of the information necessary for a quantitative reconciliation is available to Alcoa without unreasonable effort. Any reference to historical EBITDA means adjusted EBITDA, for which we have provided calculations and reconciliations in the Appendix.



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Klaus Kleinfeld

Chairman and Chief Executive Officer

July 11, 2016

Alcoa Increasingly Agile; Results Continue to Improve

2Q 2016 Overview



ARCONIC

Innovation, engineered.

Arconic Segments (Value-Add)¹

- **Revenue of \$3.5 billion**, up 1 percent year-over-year, reflects:
 - 5 percent revenue increase related to acquisitions, mostly offset by a 4 percent revenue decline predominately from metal price impacts
 - **Record EPS revenue of \$1.5 billion, up 15 percent** year-over-year
- **After-tax operating income of \$294 million**, up 3 percent year-over-year
 - Global Rolled Products: \$68 million after-tax operating income; **record quarter for automotive sheet shipments, up 17 percent year-over-year**
 - Engineered Products and Solutions: **record after-tax operating income of \$180 million, up 9 percent year-over-year**
 - Transportation and Construction Solutions: \$46 million after-tax operating income, **up 5 percent year-over-year**
- Signed a **multi-year contract with Embraer valued at approximately \$470 million**
- **Opened state-of-the-art, 3D printing metal powder production facility** to develop and produce proprietary titanium, nickel and aluminum powders
- Achieved **\$176 million in productivity savings (\$360M YTD)**, on target to deliver \$650 million in 2016



Alcoa

Alcoa Corporation Segments (Upstream)¹

- **Total revenue of \$2.3 billion, up 7 percent** sequentially
 - Predominately due to 22 percent higher alumina prices, 2 percent higher aluminum pricing and organic growth, slightly offset by the impact of curtailed, divested, and closed operations
- **Third-party revenue of \$1.8 billion, up 9 percent** sequentially
- **After-tax operating income of \$150 million, up sequentially**, as improved pricing, productivity savings and the realized benefit of a more competitive portfolio lifted Alumina and Primary Metals segments profit
- Alcoa World Alumina and Chemicals **secured \$60 million of new third-party bauxite sales** over the next two years
- Reached **power agreement to improve competitiveness of Intalco smelter** in Washington State and curtailed Pt. Comfort, Texas refinery
- Achieved **\$199 million in productivity savings (\$379M YTD)**, on target to deliver \$550 million in 2016

Separation on Track

- **Filed Initial Form 10** on June 29, major milestone in Alcoa's pending separation
- **Separation on track** to be completed **2nd half of 2016**

¹) Arconic segments: Global Rolled Products (GRP), Engineered Products and Solutions and Transportation and Construction solutions. Alcoa Corporation segments: Alumina and Primary Metals. After the separation, Warrick and Saudi Arabia rolling mill operations (currently in GRP segment) will be in Alcoa Corporation. See appendix for EBITDA reconciliations



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William Oplinger

Executive Vice President and Chief Financial Officer

July 11, 2016

Income Statement Summary

\$ Millions, except aluminum prices and per-share amounts

	2Q15	1Q16	2Q16	Prior Year Change	Sequential Change
Realized Aluminum Price (\$/MT)	\$2,180	\$1,793	\$1,849	(\$331)	\$56
Revenue	\$5,897	\$4,947	\$5,295	(\$602)	\$348
Cost of Goods Sold	\$4,663	\$4,041	\$4,216	(\$447)	\$175
COGS % Revenue	79.1%	81.7%	79.6%	0.5 % pts	(2.1 % pts)
Selling, General Administrative, Other	\$224	\$260	\$286	\$62	\$26
SGA % Revenue	3.8%	5.3%	5.4%	1.6 % pts	0.1 % pts
Other Expenses (Income), Net	\$0	\$34	(\$37)	(\$37)	(\$71)
Restructuring and Other Charges	\$217	\$93	\$23	(\$194)	(\$70)
Effective Tax Rate	26.6%	73.2%	46.1%	19.5 % pts	(27.1 % pts)
EBITDA	\$942	\$604	\$754	(\$188)	\$150
Net Income (Loss)	\$140	\$16	\$135	(\$5)	\$119
Net Income (Loss) per Diluted Share	\$0.10	\$0.00	\$0.09	(\$0.01)	\$0.09
Adjusted Net Income excl. Special Items	\$250	\$108	\$213	(\$37)	\$105
Adjusted Net Income per Diluted Share excl. Special Items	\$0.19	\$0.07	\$0.15	(\$0.04)	\$0.08

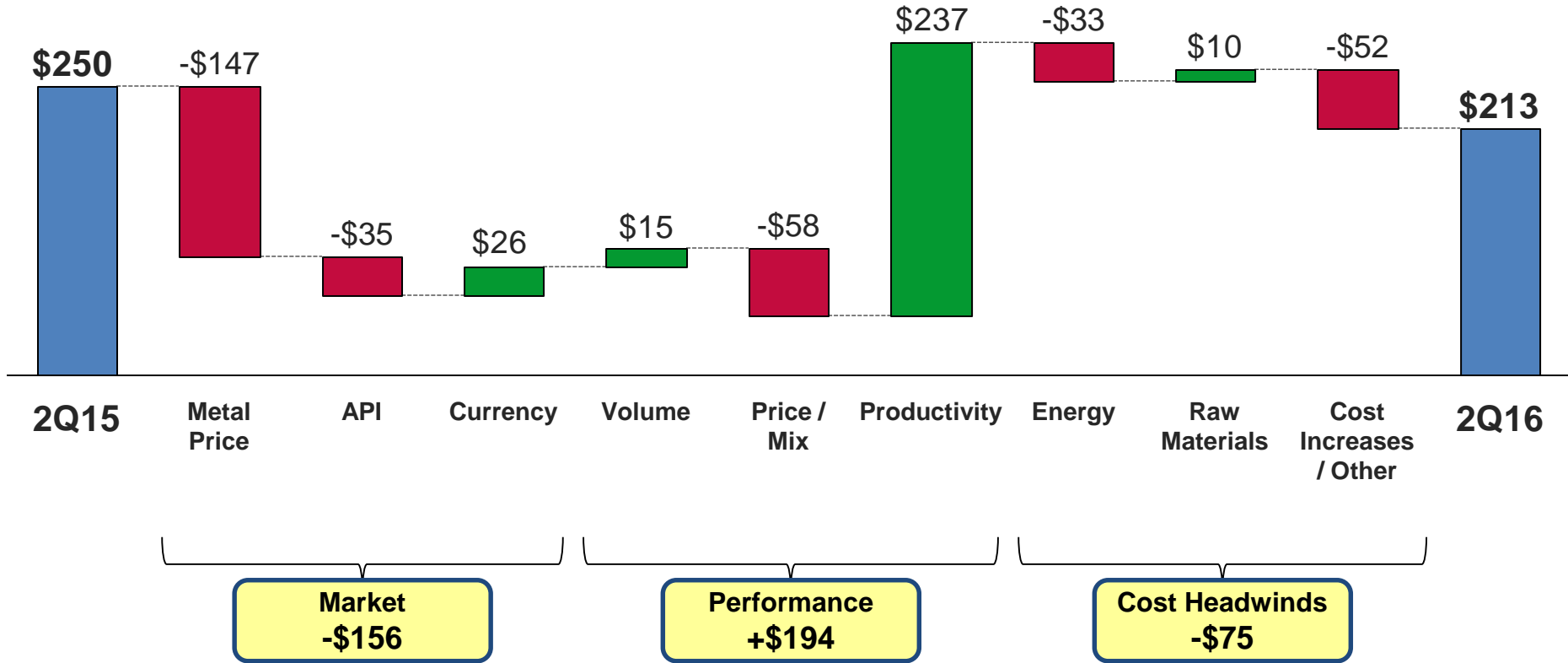
Special Items

\$ Millions, except per-share amounts

	2Q15	1Q16	2Q16	Income Statement Classification	Segment
Net Income	\$140	\$16	\$135		
Net Income per Diluted Share	\$0.10	\$0.00	\$0.09		
Tax Items	\$22	(\$12)	(\$44)	Income Taxes	Corporate
Portfolio Transaction Costs (including Separation Costs)	(\$5)	(\$17)	(\$37)	SG&A	Corporate
Restructuring-Related	(\$143)	(\$63)	(\$17)	Restructuring and Other Charges/COGS	Corporate
Mark-to-Market Energy Contracts	(\$3)	-	(\$3)	Other Expenses, Net	Corporate
Gain on Sale	\$19	-	\$11	Other Income, Net	Corporate
Supplier Arbitration Recovery	-	-	\$12	Other Income, Net	Corporate
Special Items	(\$110)	(\$92)	(\$78)		
Adjusted Net Income excl. Special Items	\$250	\$108	\$213		
Adjusted Net Income per Diluted Share excl. Special Items	\$0.19	\$0.07	\$0.15		

Strong Productivity Partially Offsets Lower Metal and Alumina Prices

Adjusted Net Income excluding Special Items (\$ Millions)



Note: Metal Price = LME + Regional Premium; Regional Premium previously reported in Price/Mix category
See appendix for Adjusted Income reconciliation

GRP: Productivity and Auto Uplift Offset Headwinds

2Q16 Actual and 3Q16 Outlook – Global Rolled Products

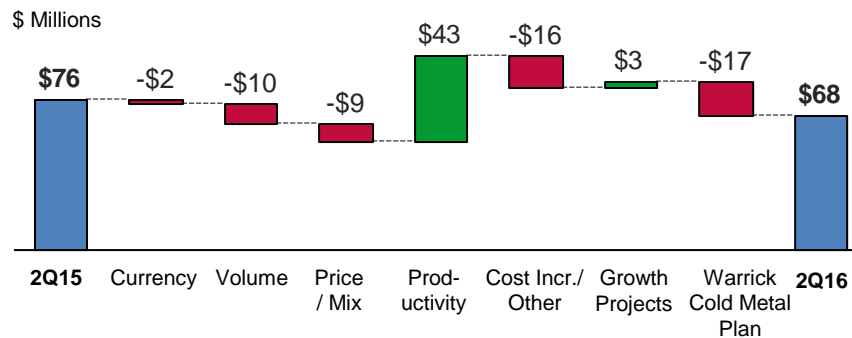
2nd Quarter ATOI Results

	2Q15	1Q16	2Q16
3 rd Party Revenue (\$ Millions)	1,668	1,397	1,550
3 rd Party Conversion Revenue (\$ Millions)	809	737	795
ATOI (\$ Millions)	76	68	68
EBITDA/MT (\$)	342	374 ¹	326 ¹

2nd Quarter Business Highlights

- **EBITDA/MT¹ up 11%** year-over-year excluding impact to secure alternative metal supply at Warrick (EBITDA \$27M, ATOI \$17M)
- **Strong productivity** more than offsets cost increases
- **Record quarter for auto sheet shipments; up 17%** year-over-year
- Lower demand from **Aero** due to new model transition and **reduced N.A. heavy duty truck** build rates
- **Pricing pressure** in **packaging** partially offset by favorable mix in commercial transportation

2nd Quarter ATOI Performance Bridge



3rd Quarter Year-over-Year Outlook

- **Auto sheet shipments** expected to be **up ~50%** with Tennessee Automotive continuing to ramp-up
- Ongoing **pricing pressure** in **packaging**
- Lower demand in aero from supply chain **inventory destocking** and **model transition** (weaker demand legacy platforms); **Commercial Transportation** from **reduced N.A. heavy duty truck** build rates
- **ATOI** is expected to be **up 5-10%** at current exchange rates **excluding \$15M impact to secure alternative metal supply at Warrick**

1. EBITDA/MT include impact from Warrick metal supply. Without that impact, EBITDA/MT is \$390 (1Q16) and \$380 (2Q16). See appendix for additional information and EBITDA reconciliation.

EPS: Strong Productivity and Benefits from Acquisitions

2Q16 Actual and 3Q16 Outlook – Engineered Products and Solutions

2nd Quarter ATOI Results

	2Q15	1Q16	2Q16
3 rd Party Revenue (\$ Millions)	1,279	1,449	1,465
ATOI (\$ Millions)	165	162	180
EBITDA Margin	23.5%	21.0%	22.5%

2nd Quarter Business Highlights

- **Record revenue; 15% growth y-o-y** primarily by **acquisitions**
- Growth partially offset by **pricing pressure**, supply chain **inventory destocking** and **model transition** (weaker demand legacy platforms)
- 2nd Quarter **ATOI up 9%** year-over-year
- Strong performance of the **ATEP** acquisition
- **EPS improves cost structure** with YTD >1,000 positions reduced or relocated to low-cost-locations, while strengthening growth areas

2nd Quarter ATOI Performance Bridge

\$ Millions



3rd Quarter Year-over-Year Outlook

- **Production of jet engines and new aircraft models will ramp up**
- **Increasing price pressure and accelerated airframe supply chain destocking**
- **Strong NA IGT growth**, while **Oil & Gas, European IGT and North America Commercial Transportation** markets continue to be **soft**
- **ATOI is expected to be up 5-10%** at current exchange rates

TCS: Productivity Offsets N.A. Heavy Truck and Brazil Weakness

2Q16 Actual and 3Q16 Outlook – Transportation and Construction Solutions

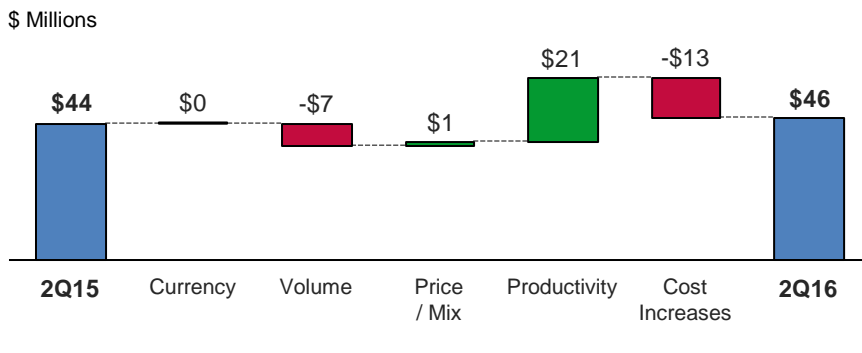
2nd Quarter ATOI Results

	2Q15	1Q16	2Q16
3 rd Party Revenue (\$ Millions)	492	429	467
ATOI (\$ Millions)	44	39	46
EBITDA Margin	14.4%	14.9%	16.3%

2nd Quarter Business Highlights

- **Revenue down 5%** year-over-year; attributable to the **N.A. Heavy Duty Truck and Brazilian** market pressures
- **Record EBITDA %** from **Strong Productivity** actions offsetting cost increases and revenue decline
- **N.A. Non-Residential Construction** steadily improving
- **N.A. Heavy Duty Truck** build rates continue to **decline**; Europe **continues to grow**

2nd Quarter ATOI Performance Bridge



3rd Quarter Year-over-Year Outlook

- **N.A. Non-Residential Construction** together with European market continue to drive top line growth
- **Continued N.A. Heavy Duty Truck deterioration**, partially offset by Europe and Asia Pacific
- **Productivity gains** throughout the business to continue
- **ATOI** is expected to be **up 1-3%** at current exchange rates

Alumina: Earnings Lifted by Pricing and Performance

2Q16 Actual and 3Q16 Outlook – Alumina

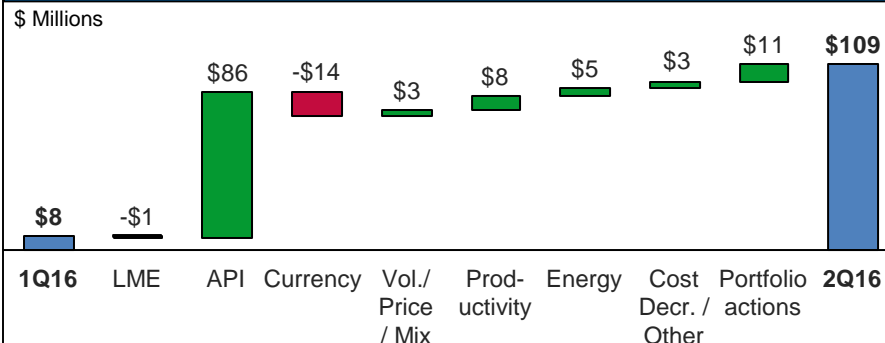
2nd Quarter ATOI Results

	2Q15	1Q16	2Q16
Production (kmt)	3,977	3,330	3,316
3 rd Party Shipments (kmt)	2,706	2,168	2,266
3 rd Party Revenue (\$ Millions)	924	545	694
3 rd Party Price (\$/MT)	337	249	304
ATOI (\$ Millions)	215	8	109

2nd Quarter Business Highlights

- **API pricing up 22% sequentially, down 26% year-over-year**
- **Production down vs. Q1** on Pt Comfort curtailment, partially offset by higher production in Sao Luis, Kwinana and San Ciprián
- **Productivity gains through strong cost control** and execution of curtailments
- **3rd party Bauxite sales** continue to **grow. Bauxite ATOI up \$13M sequentially**

2nd Quarter ATOI Performance Bridge



3rd Quarter Sequential Outlook

- **Production** to be **up 20 kmt** sequentially
- **~85%** of 3rd party shipments on API or spot pricing for 2016
- **API pricing follows 30-day lag; LME pricing follows 60-day lag**
- **ATOI to be up \$5M** excluding pricing and currency impacts

Primary Metals: Benefit from Pricing and Portfolio Actions

2Q16 Actual and 3Q16 Outlook – Primary Metals

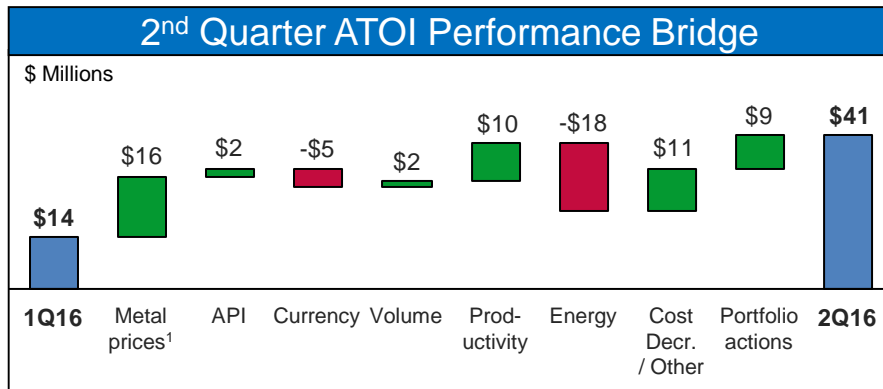
2nd Quarter ATOI Results

	2Q15	1Q16	2Q16
Production (kmt)	701	655	595
3 rd Party Shipments (kmt)	630	575	565
3 rd Party Revenue (\$ Millions)	1,534	1,123	1,119
3 rd Party Price (\$/MT)	2,180	1,793	1,849
ATOI (\$ Millions)	67	14	41

2nd Quarter Business Highlights

- **Realized price up 3%** sequentially
- **Production down 60 kmt** following Warrick closure
- Benefit from **productivity, lower carbon costs** and the **Warrick closure**
- **Alumina costs follow 90-day lag on API pricing**
- **Energy sales down** due to lower volumes in Brazil and US

2nd Quarter ATOI Performance Bridge



3rd Quarter Sequential Outlook

- **Production** expected to be **up** due to an additional day in the quarter
- **Pricing** to follow a **15-day lag** to LME
- **Alumina costs follow 90-day lag on API pricing, \$35-\$40** increase per aluminum ton
- **Productivity** will offset seasonally **higher energy prices**
- **ATOI to be flat** excluding pricing and currency impacts

¹Metal Price = LME + Regional Premium; Regional Premium previously reported in Price/Mix category

FCF at \$55M despite \$200M Australian Gas Prepayment

2Q15, 1Q16 and 2Q16 Cash Flow

(\$ Millions)	2Q15	1Q16	2Q16
Net Income before Noncontrolling Interests	\$207	\$11	\$178
Depreciation, Depletion and Amortization	\$320	\$309	\$313
Change in Working Capital	\$44	(\$469)	\$5
Pension Expense in Excess of Contributions	\$37	\$13	\$8
Australian Gas Prepayment	(\$300)	-	(\$200)
Other Adjustments	\$164	(\$294)	\$28
Cash from Operations	\$472	(\$430)	\$332
Dividends to Shareholders	(\$55)	(\$57)	(\$57)
Change in Debt	(\$38)	-	(\$11)
Net Distributions to Noncontrolling Interests	(\$42)	(\$50)	(\$34)
Other Financing Activities	\$2	-	\$2
Cash from Financing Activities	(\$133)	(\$107)	(\$100)
Capital Expenditures	(\$267)	(\$251)	(\$277)
Acquisitions/Divestitures/Asset Sales	\$67	\$222	\$327
Investment Sales	\$22	\$19	\$256
Other Investing Activities	(\$42)	\$9	\$5
Cash from Investing Activities	(\$220)	(\$1)	\$311
Free Cash Flow	\$205	(\$681)	\$55
Cash on Hand	\$1,311	\$1,384	\$1,929

Over \$1.2 Billion expected to be Generated by Asset Sales in 2016

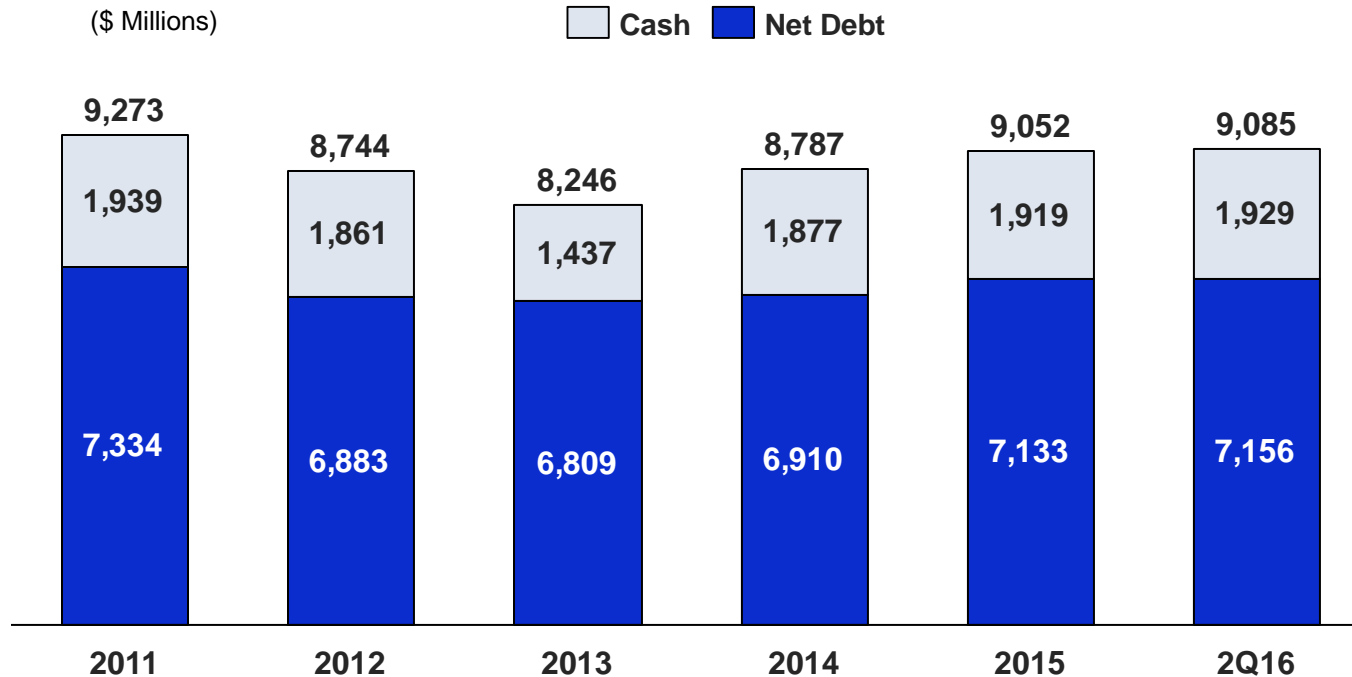
2016 Expected Asset Sales

		Cash Proceeds	Closing
DBNG Pipeline	<ul style="list-style-type: none"> ▪ Sell all of Alcoa of Australia's¹ 20% minority interest in the Australia Dampier to Bunbury Natural Gas Pipeline 	\$145M	2Q16
Remmele	<ul style="list-style-type: none"> ▪ A \$70M² contract manufacturer of medical devices, ▪ Acquired in 2015 as part of RTI transaction 	\$102M	2Q16
Company Owned Life Insurance	<ul style="list-style-type: none"> ▪ Redemption of company-owned life insurance ▪ A portion sold in 1Q (\$234M), with a second portion in 2Q (\$223M) 	\$457M	1Q & 2Q 2016
Captive Insurance Co. Assets	<ul style="list-style-type: none"> ▪ Sell portion of investments held by Three Rivers Insurance co. ▪ Received regulatory approval in 2Q16 for sale 	\$111M	2Q16
Total Cash Proceeds – Year-to-Date:		\$815M	
Additional Asset Sales in 2016	<ul style="list-style-type: none"> ▪ Intalco Wharf / Property Sale ▪ Yadkin Hydroelectric Project ▪ Former Eastalco Smelter Property 	~\$400M	2H16
Total Cash Proceeds expected in 2016:		> \$1.2 Billion	

¹Alcoa of Australia is owned 60% by Alcoa Inc. and 40% by Alumina Limited. ²Represents full year 2015 Pro forma revenue

Strong liquidity, with Cash on hand at \$1.9 Billion

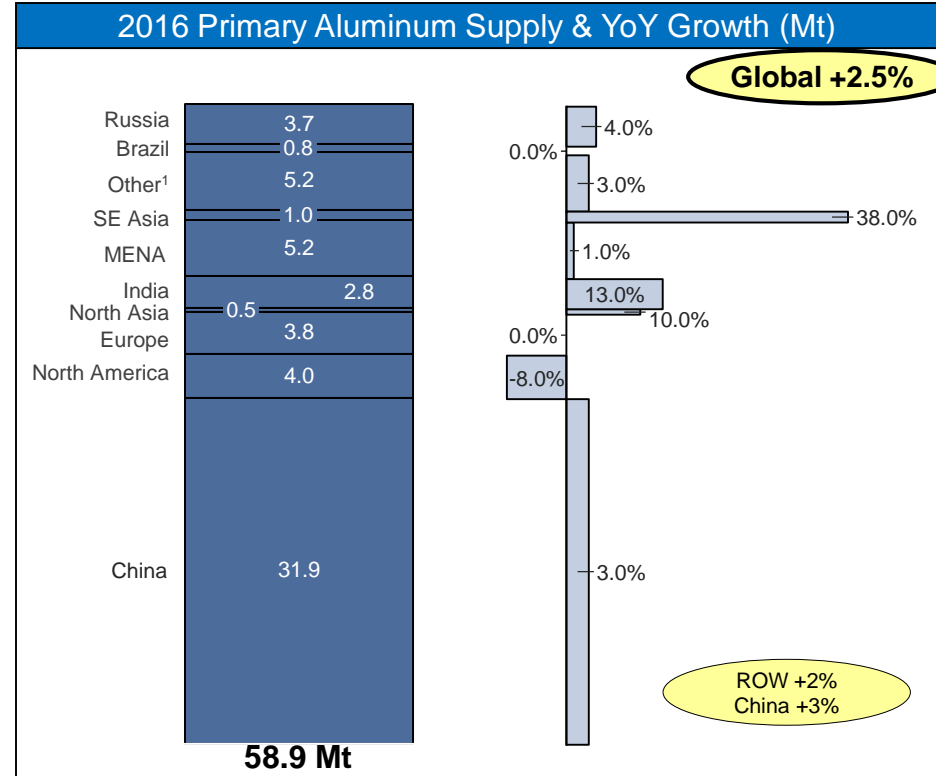
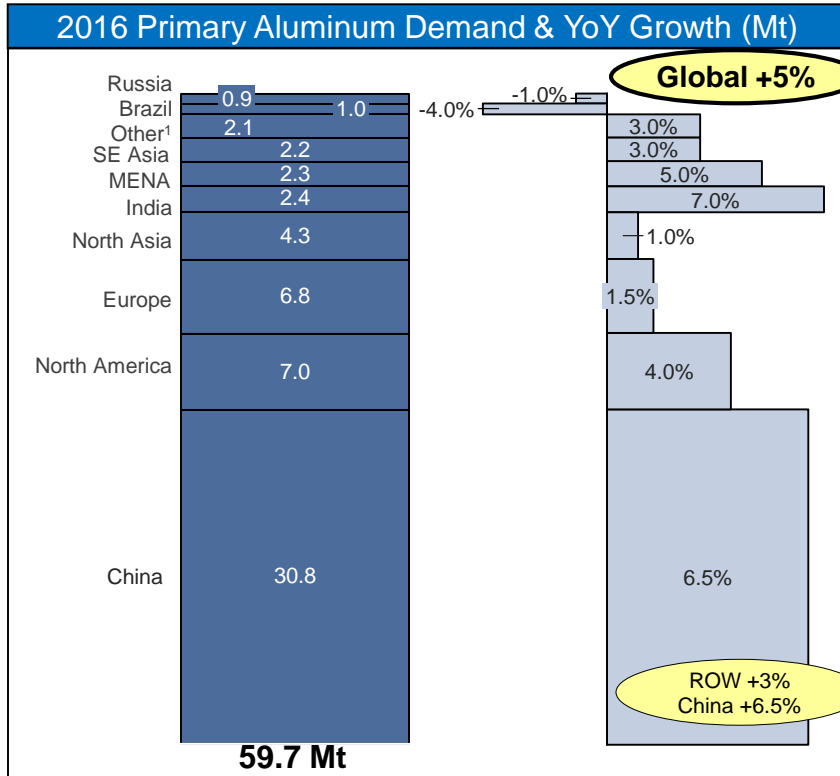
Debt, Net Debt



Note: Debt amounts for 2011 – 2015 have been updated to reflect the adoption of FASB guidance (effective January 1, 2016) requiring presentation of debt issuance costs as a reduction to debt rather than as a noncurrent asset.

Demand Growth at 5% While Supply Only Grows at 2.5% in 2016

Primary aluminum demand and supply by region

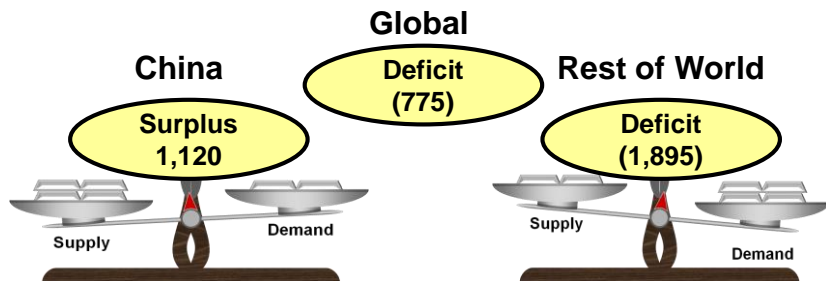


Aluminum Market Remains in Deficit at 775 kmt

Aluminum fundamentals overview

Continue to see global deficit in 2016

2016E Aluminum Balance (kmt)

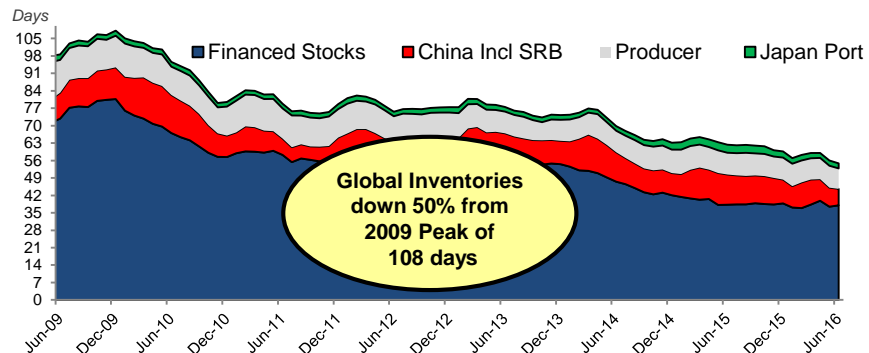


China

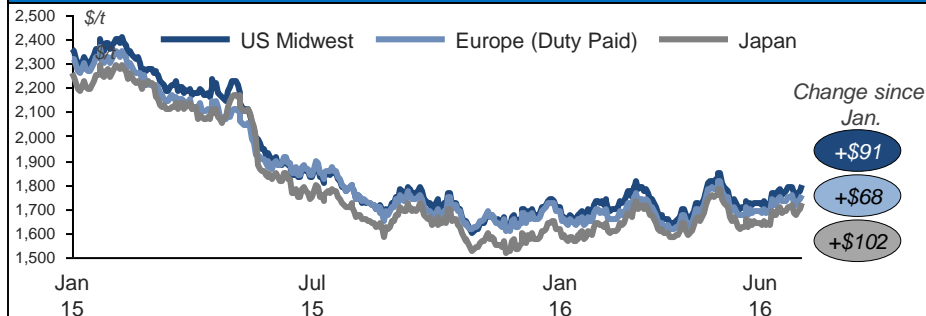
Rest of World

30,235	Prod. at Beginning Run Rate	26,670
1,985	Additions/Creep	1,000
(360)	Restarts/(Curtailments)	(565)
40	Imports/(Exports)	(40)
31,900	Total Supply	27,065
<u>(30,780)</u>	Demand	<u>(28,960)</u>
1,120	Net Balance	(1,895)

Global Inventories at 54 days; -7 days YoY



Total price stabilizing (\$/t)

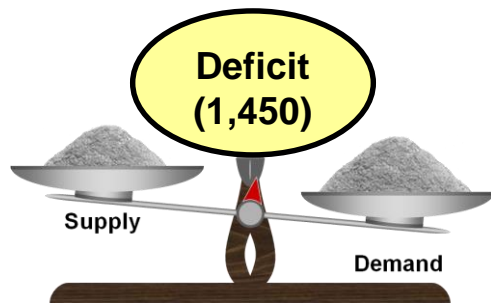


Alumina Market Remains in Deficit at 1.5 Mmt

Alumina fundamentals overview

Continue to see large deficit for 2016

2016E Alumina Balance (kmt)

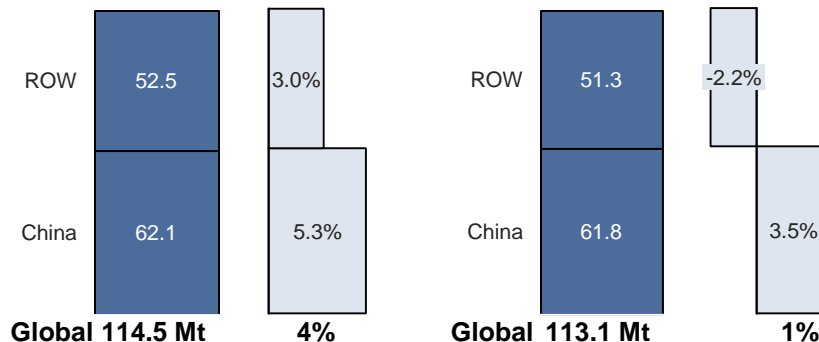


	China	Rest of World
Prod. at Beg. Run Rate (Dec 2015)	55,685	55,210
Additions/Creep	5,150	1,365
Restarts/(Curtailments)	(2,520)	(1,785)
Imports/(Exports)	3,500	(3,500)
Total Supply	61,815	51,290
Demand	(62,090)	(52,465)
Net Balance	(275)	(1,175)

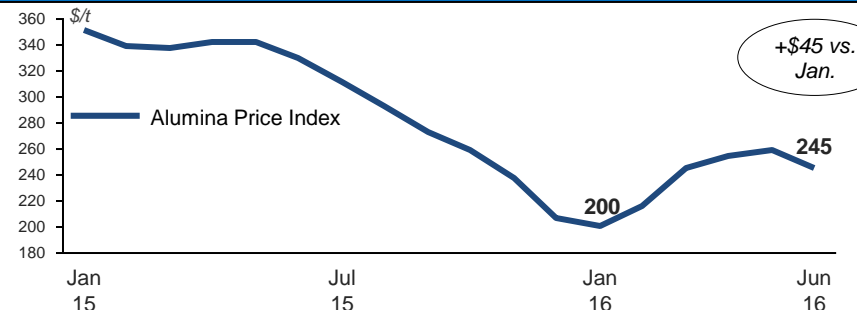
Demand growth at 4% while supply only grows at 1% in 2016

Demand & YoY Growth (Mt)

Supply & YoY Growth (Mt)



Price has maintained recovery since Q1 lows (\$/t)





Advancing each generation.



Klaus Kleinfeld

Chairman and Chief Executive Officer

July 11, 2016

Aerospace 2H '16 Improves; Engines Outpace Airframes

Alcoa Current Assessment of Aerospace Market

Market

Growth⁽¹⁾

Global Commentary

Aerospace⁽¹⁾



2016 FY



2016 2H
vs. 1H16



>6%

2017



>10%

- **Transition year 2016 includes strong 2H**
 - 1H Large Commercial Aircraft (LCA) deliveries down -1% YoY
 - 2016 FY flat to +3%: Careful ramp-up of new models, lower orders for legacy models
 - Strong June deliveries: 2nd best month on record. Positive outlook: 2H16 +6% (vs.1H16)
- **Double-digit growth** projected in **2017 (>10%)**
- **Robust Commercial Jet Order Book: >9 Years** of Production (at 2015 delivery rates)
- **Solid Airline Fundamentals⁽²⁾**: Airline profitability at an **all time high** (\$39B net profit for 2016)
- **Low LCA cancellations 1H: 0.6% of order book**

Airframe Components

(e.g., fasteners, extrusions, forgings, castings, sheet & plate)



- **Reduced** production rate of **legacy** widebody aircraft (e.g., 747-8 production down >50% YoY)
- Part **standardization** and **supply chain optimization**: e.g. distributor consolidation, stock level reduction at OEMs
- **Near-term** demand filled through **de-stocking**

**De-stocking
absorbs demand**

Jet Engine Components

(e.g., fan and turbine blades, rings, discs, shafts, structural castings)



**Ramp-ups
accelerating
demand**

- **New engine launches** with multiple new technology and product introductions and supply chain **ramp-up challenges**
- **Legacy** engine spares and replacements **remain strong**
- Demand leading to **new orders**

Continued Growth in Automotive; HDT- N.A. Further Decline, Europe Strength

Alcoa End Markets: Current Assessment of 2016 vs. 2015

End Market

2016 Growth

Global and Regional Commentary

Automotive



1% to 4%
Global
production
growth



N.A.

1% to 4%



- **Production Up: +2.6%YTD**_{May'16} (7.4M units); Truck up **+8.5% YTD**_{May'16}
- **Healthy Sales: Up +1.3%YTD**_{June'16}, **FY 2015 U.S. sales (17.4M)** new peak since (17.3M) recorded in 2000, Light Truck share reaches **60.0%** (ref. 52.0% June 2014 YTD)
- **Sustained Demand: US vehicles 12+ years old made up 100.4M vehicles out of the 258M in operation**¹.
- **Stable Inventory: 66 days**_{June'16} (industry target is 60-65 days) up **7 days MoM** and up **6 days YoY**
- **Incentives Up: +12.5%YoY** (\$3,237/unit)_{June'16}; **ATP² up +2.0% YoY**_{June'16} (\$33,652 vs. \$32,997)

E.U.

2% to 4%



- **Rising Production: +4.1%YTD**_{May'16}, **West up +6.1%YTD**(88% share), **offsets East**, down **-8.5%YTD** (12% share)
- **Strong Registrations: +9.9%YTD**_{May'16}; **Exports forecast to increase +4.8% in 2016** (+1.9% in 2015)_{Apr'16}

China

3% to 5%



- **Strong Production: +5.2%YTD**_{May'16} and **+4.2%YoY**_(May'16 vs. May'15)
- **Sales +6.5%YTD**_{May'16} and **+9.3%YoY**_(May'16 vs. May'15) driven by surge in SUV/CUV³ demand, up **34.7% YoY**_{May'16}
- **Growth driven by recovering consumer sentiment and tax-incentive on small-engine Light Vehicles**

Heavy Duty Truck and Trailer



-4% to -1%
Global
production
decline



N.A.

-26% to -28%



- **Declining Production: Down 22.0%**_{May'16 YTD} at 107.0k trucks vs. 137.1k YTD_{May'15}
- **Weak Orders: Down 35.4% YoY** (Preliminary June '16 vs. June '15), and **down 39.6% YTD**
- **High Inventory: Standing at 64.5k; 27% higher** than the 10-year historical avg. of 47.4k
- **Falling Orderbook: At 108.9k, down 35.4% YoY**_(May'16 vs. May'15), and **down 5.7% month-over-month**. However, still above its **historical avg. of 101k**

E.U.

3% to 5%



- **Strength in WEU: Production up 2.4% YoY**_(May'16 vs. May'15) and **up 9.4% YTD**_{May'16}
- **Registrations in WEU up 18.4% YTD**_{May'16} and **Orders in WEU up 5.0% YTD**_{May'16}
- **Decline in EEU: Production down 16.6% YTD**_{Apr'16} from Russia and Turkey weakness

China

2% to 4%



- **Strong Sales: Up 25.4% YoY**_(May'16 vs. May'15), and **up 14.1% YTD**_{May'16}
- **Increasing Production: Up 25.8% YoY**_(May'16 vs. May'15), and **up 10.0% YTD**_{May'16}

Packaging Stable, Commercial B&C and Global Airfoil Markets Grow

Alcoa End Markets: Current Assessment of 2016 vs. 2015

End Market

2016 Growth

Global and Regional Commentary

Packaging



↑
1% to 3%
Global sales
growth

N.A.
-1% to 0%
E.U.
1% to 2%
China
5% to 8%



- **Demand decline:** Weakness (-1% to -2%) in **Carbonated Soft Drinks (CSD)**
- **Moderate growth in Beer Segment** (+1% to +2%) to partially offset CSD
- **Growth** led by modest growth (1% to 2%) in **Western Europe**, partially offset by downward pressure in **Eastern Europe** (primarily declines in Russia)
- **Growth** led by aluminum can penetration from glass in beer segment

Building and Construction



↑
4% to 6%
Global sales
growth

N.A.
4% to 5%
E.U.
-1% to +1%
China
3% to 5%



- **Non-Residential Contracts Awarded: Up +1.3%** in May (mean of 12-month rolling avg.)
- **Architectural Billings Index Positive:** In May'16 it was 53.1. Positive reading (above 50) for 24 out of the last 26 months
- **Housing Starts up 10.6% in 2015** (vs. 2014); it grew 11.5% YTD May'16 (vs. YTD May'15)
- **Flat to slight growth** as E.U. economies stabilize, growth outlook varies by country
- **Moderate growth expected** in 2016 at 3%-5%, compared to 5% in 2015 and 8% in 2014

Industrial Gas Turbines



↑
2% to 4%
Global airfoil
market growth

- Market moving towards **higher value-add product** as customers develop new, **high efficiency turbines with advanced technology**
- New heavy duty **gas turbine units ordered +4.3%** in 1Q16 (versus prior five Q1's)
- **U.S. (60 Hz) gas-fired generation +6.9% April-YTD** (y/y) driving demand for **spares and component upgrades** on existing turbines
- 1Q16 **OECD electricity demand down 1.2% YoY** and still 1.4% below 2008 levels



ARCONIC

Innovation, engineered.

Future Arconic: Groups on Track to Meet 2016 Goals

2Q16 Arconic Performance and 2016 Goals

3rd Party Revenue(\$B)
EBITDA (% , \$/MT)

GRP

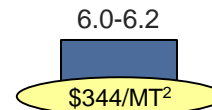
2Q 2016 Highlights

- EBITDA/MT of **\$380, up 11% YoY** excluding impact to secure alternative metal supply at Warrick (\$27M)
- Strong productivity** more than offsets cost increases
- Record quarter for Auto sheet shipments; up 17% year-over-year**

3Q 2016 Outlook¹

- ATOI **up 5-10% YoY**
excluding \$15M impact to secure alternative metal supply at Warrick

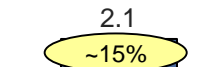
2016 Goal



TCS

- Revenue down 5%** year-over-year; attributable to the **N.A. Heavy Duty Truck and Brazilian** market pressures
- Record EBITDA %** from **Strong Productivity** actions offsetting cost increases and revenue decline

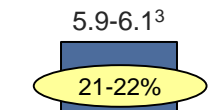
- ATOI **up 1-3% YoY**



EPS

- Record revenue; 15% growth y-o-y** primarily driven by **acquisitions**
- Growth partially offset by **pricing pressure**, supply chain **inventory destocking** and **model transition** (weaker demand legacy platforms)

- ATOI **up 5-10% YoY**

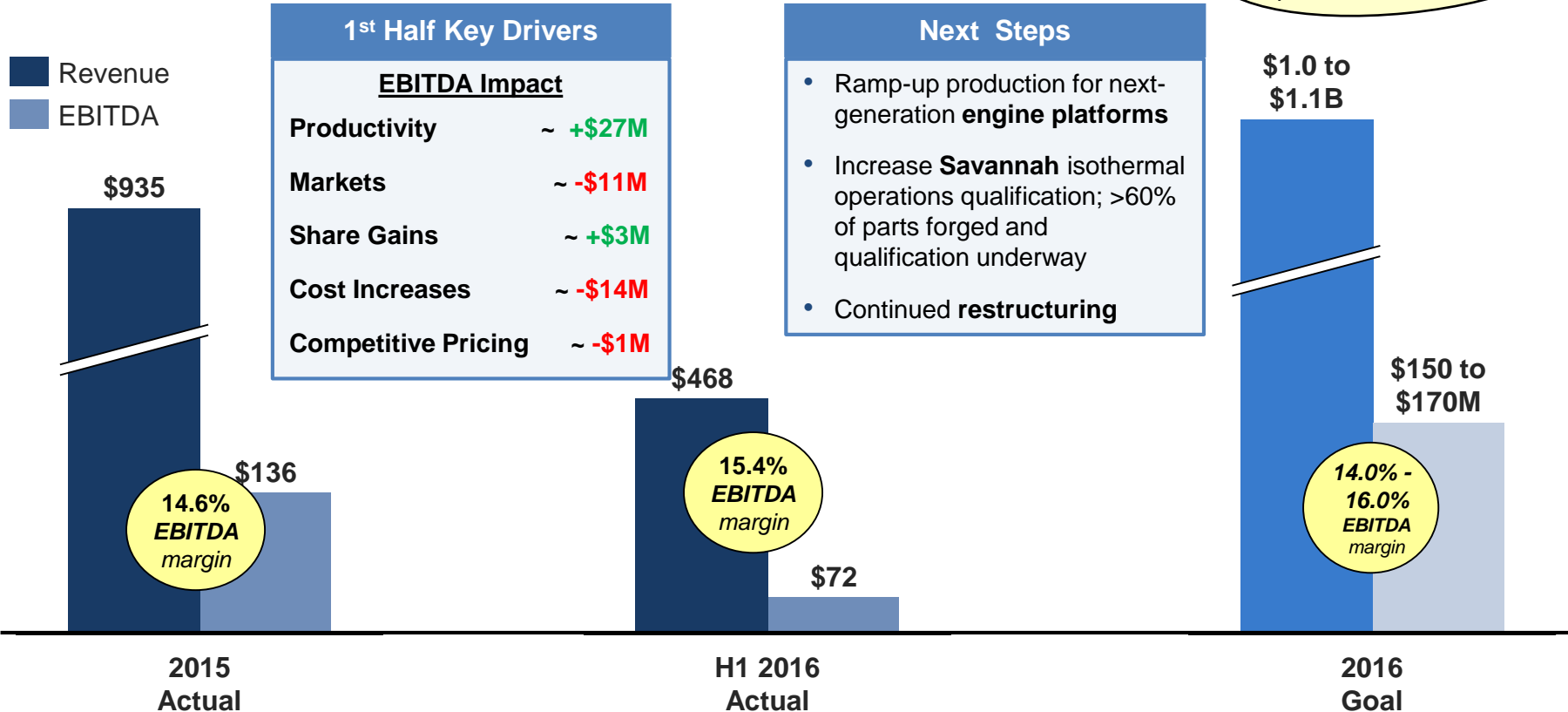


1) At current exchange rates 2) Excludes Warrick CMP impact 3) 2016 EPS Goal adjusted for sale of Remmele Medical
See appendix for EBITDA reconciliations

Firth Rixson On Track to 2016 Target

Synergies of \$47M¹ tracking well ahead of YE 2016 target of \$51M

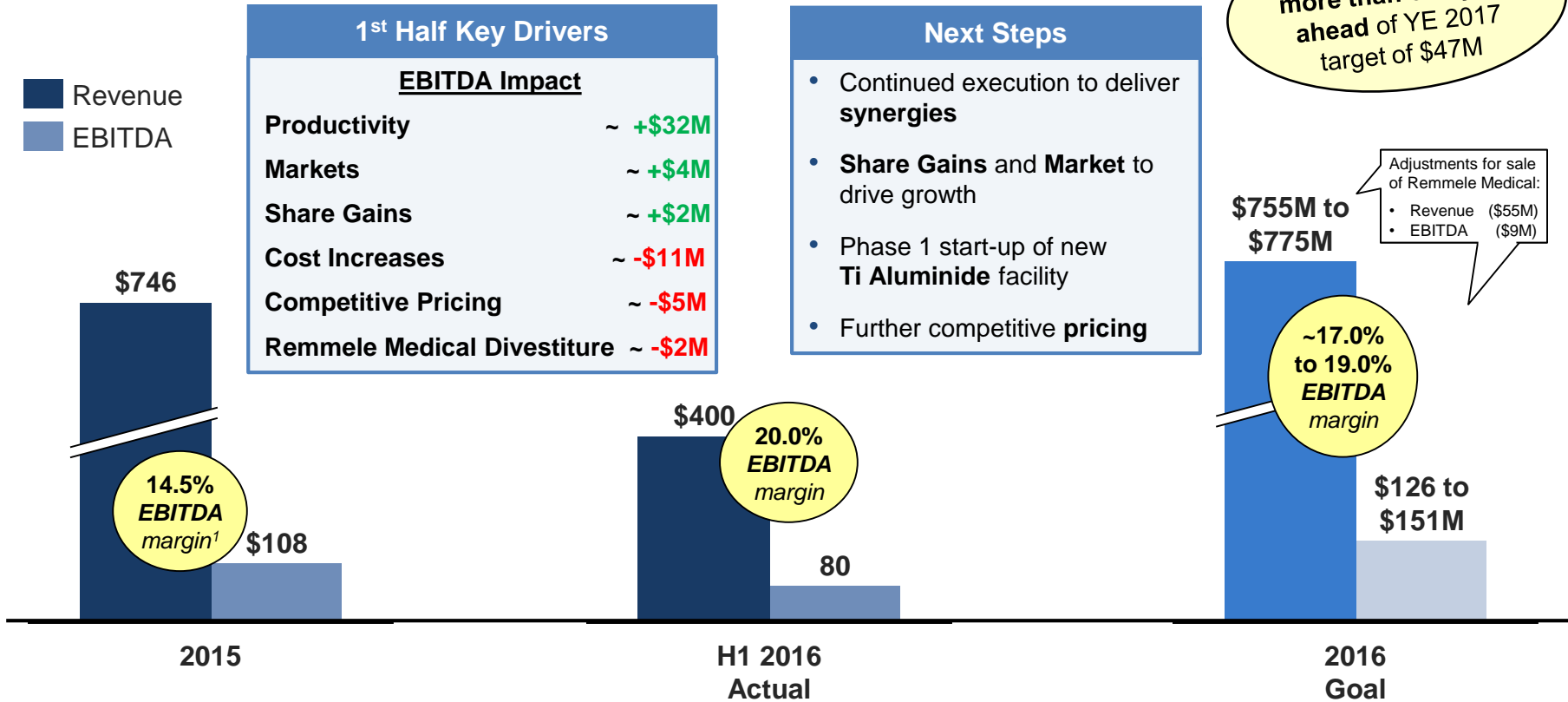
2015-2016 Firth Rixson Revenue (\$M) and EBITDA (\$M,%) Overview



1) Cumulative gross synergies since date of acquisition
See appendix for EBITDA reconciliations

ATEP (RTI) Delivering Ahead of Integration Plan; On Track to Target

2015-2016 ATEP Revenue (\$M) and EBITDA (\$M,%) Overview



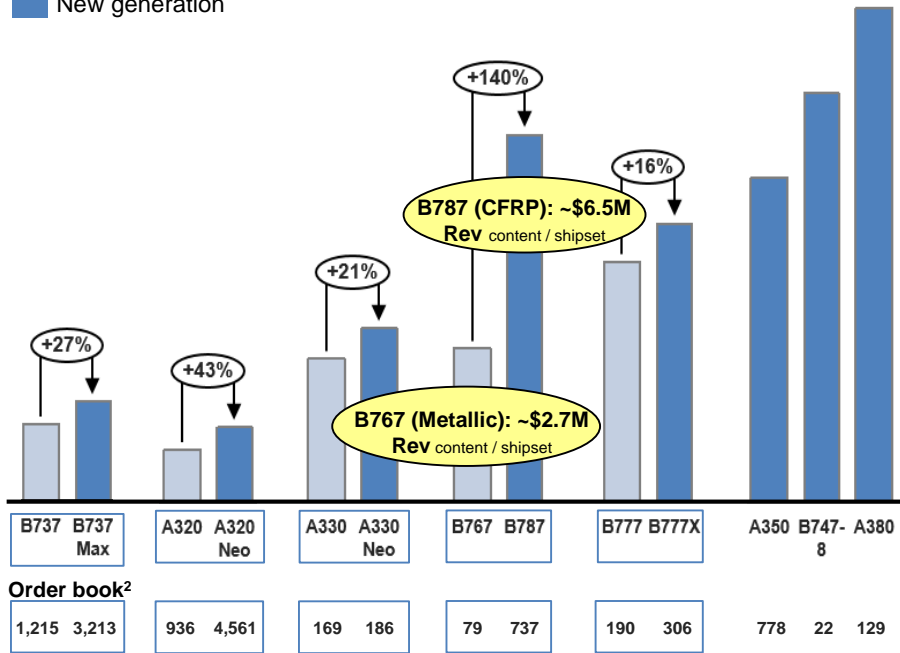
1) ATEP (RTI) results include both pre-acquisition and post-acquisition periods and exclude transaction-related costs and the impact of purchase accounting 2) Gross synergies cumulated since date of acquisition.

Arconic Well Positioned on Next Generation Structures and Engines

Indexed Revenue by Major Programs¹

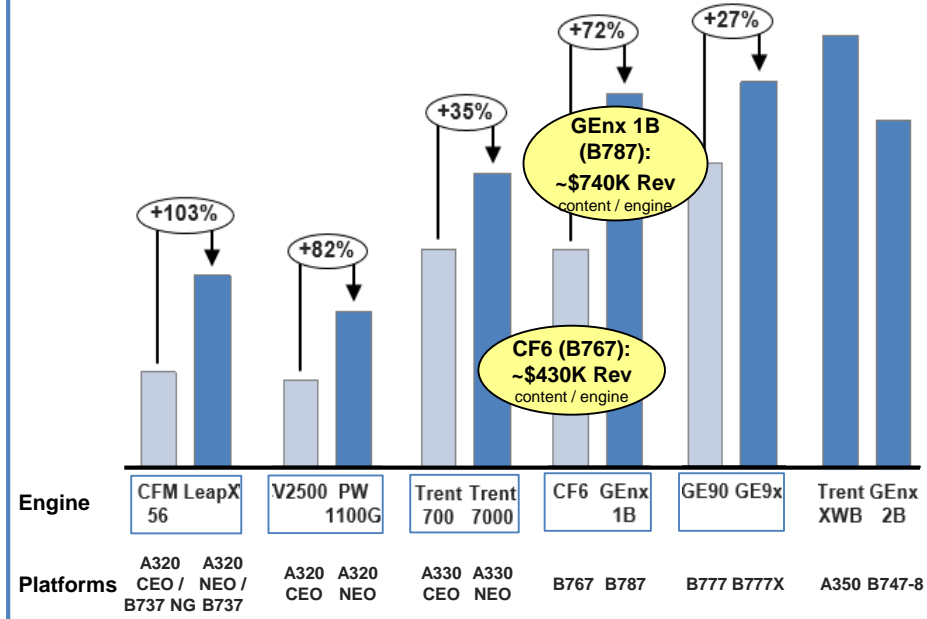
Revenue per Aircraft (indexed to B737 NG)

Current generation
New generation



Revenue per Jet Engine (Indexed to CFM56)

Current generation
New generation



1) Includes Firth Rixson, RTI and Tital content. CFRP = Carbon Fiber Reinforced Polymer

2) Source: Boeing and Airbus – as of May 31, 2016.

Leading Additive Manufacturing in Aerospace

Next generation multi-material solutions: Advancing 3D-printing materials and processes

Multi-Materials Leadership

Metal Powder Expansion

Metal Powder Plant
Open July 2016

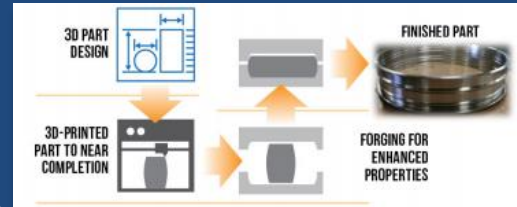


- **Ti, Ni and Al powders** optimized for 3D printing aerospace components
- Advancing **feedstock, processes, product design, and qualification**
- Builds on **>100 Years of Alloy development**
 - **Over 90%** of all the aluminum **alloys that have flown** have been **invented by Alcoa**

Exclusive Advanced Processes

Combining Traditional and Additive Technology

Alcoa Ampliforge™



- Ampliforge™ **finishes 3D-printed components using a traditional process** to enhance properties, reduce material input
- Developing additive manufacturing process to **add features to traditionally manufactured near net shapes**, such as rolled rings

Commercialized 3D-Printed Components



- **Supply agreement with Airbus for 3D-printed titanium fuselage and engine pylon components**
 - Advancing additive manufacturing **from interior/cabin to structural component applications**
- First deliveries to Airbus in 3Q 2016**
- Agreement draws on **new technologies** gained through **RTI acquisition and organic expansions**

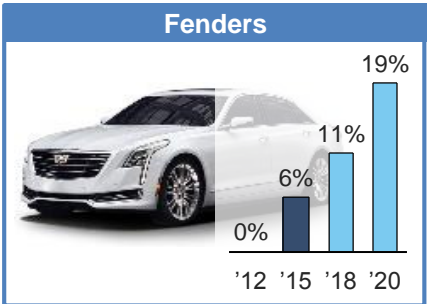
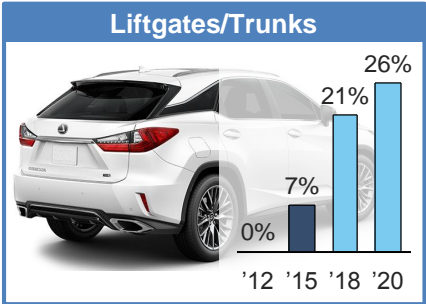
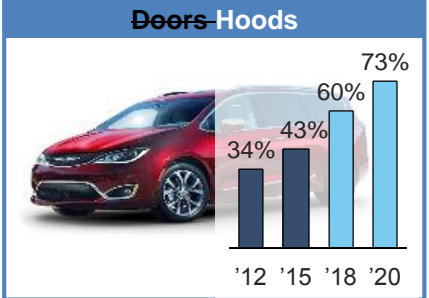
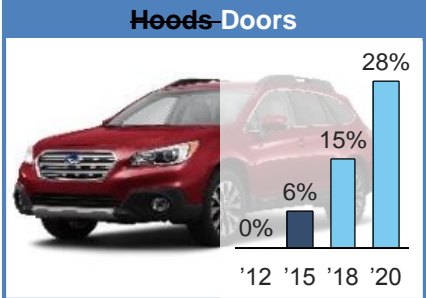
GRP Benefits from Increasing Aluminization of NA Auto Platforms

UPDATE (10/27/16):
 The original version of this slide inadvertently transposed the headings related to automotive hoods and doors. The correct headings appear on this version of the slide.

NA automotive sheet: Increasing Aluminization of OEM platforms

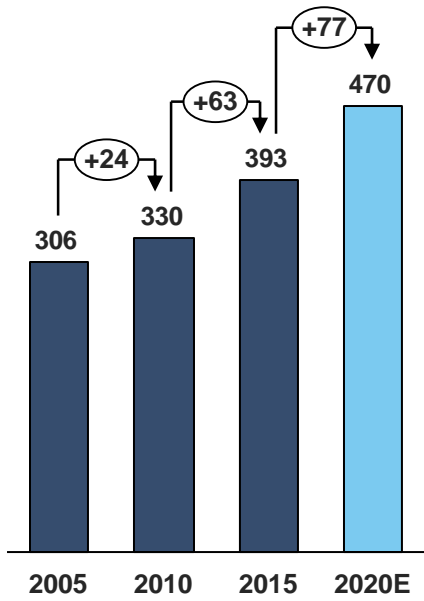
Al usage is increasing across platforms...

Aluminum penetration rates for closures



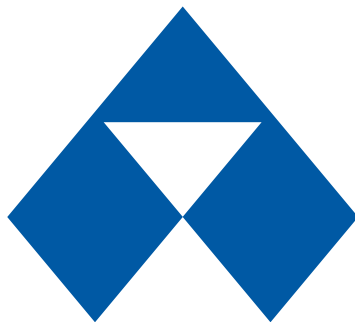
...driving consistent Al penetration growth

Pounds per vehicle



Additional Micromill market potential:
 Incremental 250 lbs / vehicle¹

1) Alcoa Analysis
 Source: Ducker Worldwide 2015 North American Light Vehicle Aluminum Content Study, June 2014 and AAP Marketing

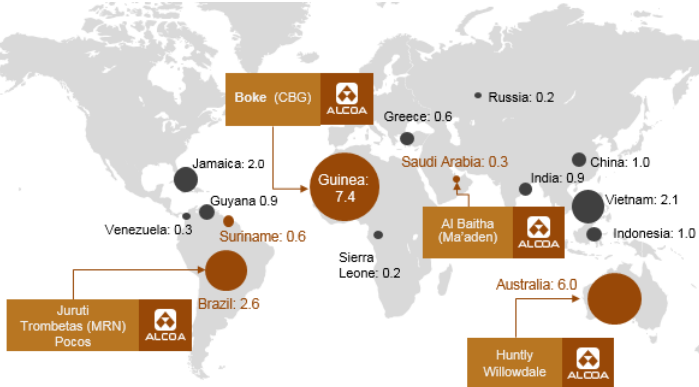


Alcoa

7% CAGR¹ in bauxite demand; bright future for Alcoa Bauxite business

Alcoa mines well positioned with bauxite reserves

Global bauxite reserves in billions of mt and Alcoa bauxite mines

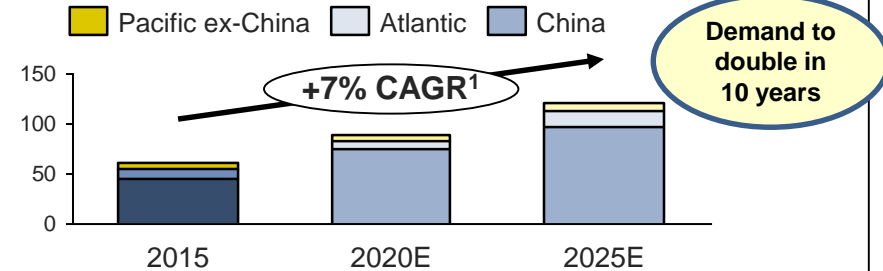


- Country bauxite reserves
- Country bauxite reserves where Alcoa has mines

- #1 bauxite miner, 45.3 Mmt production in 2015
- Consistent and reliable bauxite supplier
- Next to major markets, with space to grow
- Technical refining knowledge to provide multi-product solutions to customers

Bauxite grows strongly, driven by Chinese demand

Global 3rd party bauxite consumption in billions of mt



Strong start for Alcoa Bauxite business

- \$60M contracts in 2Q; total 3rd party bauxite sales \$410M (2016-17)
- First Western Australia bauxite trial cargo shipped to China
- Brazilian Juruti mine exporting ~1 million tons to China in 2016

ATOI up \$13M Q2 vs. Q1



1) CAGR = Compounded Annual Growth Rate
Source: GPP Strategy and Alcoa Mining

Our Team has Generated \$739M in Productivity and a Record 18K+ Ideas

Alcoa Degrees of Implementation Ideas and Gross Productivity Program through Q2 2016

Productivity

Procurement Savings

Overhead Reductions

Process Productivity

- Optimize flow paths utilizing Mega Kaizens
 - Reduce product lead times
 - Improved quality

~15,850
Action Sheets

Growth

Existing Customers

New Regions / Segments

New Customers

- Penetrate Competitive products
 - Expand distributor base
 - Automotive Light Weighting

~1,800
Action Sheets

Asset Mgmt

Capex Savings

Receivables & Payables

Inventory Reductions

- Automate inventory replenishment (MinMax)
 - Consignment inventory programs

~575
Action Sheets

2016 1H Productivity Tracking Ahead of Targets

2016 Productivity (\$ Millions)

Future Arconic

\$650M

Business Programs

\$182M

Procurement

\$147M

Overhead

\$31M

\$360M
=55%

Future Alcoa Corporation

\$550M

Business Programs

\$59M

Procurement

\$297M

Overhead

\$23M

\$379M
=69%

Executing Separation – On Course for Second Half of 2016

Separation Approximate Timeline and Path to Completion

4Q 2015

- Launched the **Separation Program Office**
- Announced the **Executive Management Teams**
- Confirmed **U.S. Domicile** for Both Companies
- Launched New Business **Improvement Programs** for 2016
 - Arconic to Deliver \$650M
 - Alcoa Corporation to Deliver \$600M
 - Above Includes Overhead Reductions Across Alcoa (\$100M¹ in 2016, \$225M over two years)

1st Half 2016

- Launched **New Value-Add Name and Brand** and **Refreshed Alcoa Brand**
- Initial Form 10 Filing** - e.g.,
 - 3-Year Carve-Out Financials
 - Form of Separation and Legal Structure
 - Intended Debt Structure
 - Allocation of Assets and Liabilities
 - Governance Elements
- Separate Supplier/Partner Contracts**

2nd Half 2016

- Form 10 Effectiveness** and **Final Board Approval**
- Complete **Separation of IT Systems** and Infrastructure
- Complete **Financing**
- Begin Trading** as Two Companies

1) \$50M of \$100M to be realized in 2016 comes from Arconic, remaining \$50M from Alcoa Corporation.

On Track to Separate into Two Strong Companies

Alcoa Increasingly Agile; Results Continue to Improve

Arconic Gearing for Profitable Growth; Significant Aero, Auto Traction

**Alcoa Corporation Realizing Benefit of More Competitive Portfolio and
Leading Bauxite Position**

Strengthening Both Companies: \$1.9B Cash on Hand

On Track for Completing Separation 2nd Half of 2016

Matthew Garth

Vice President, Investor Relations and FP&A

Alcoa

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New York, NY 10022-4608

Telephone: (212) 836-2674

Email: matthew.garth@alcoa.com

www.alcoa.com

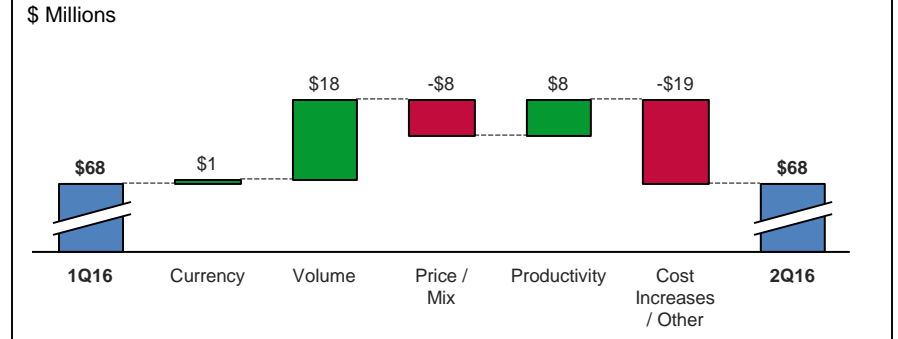
APPENDIX

Value Add Segment Bridges – 2Q16

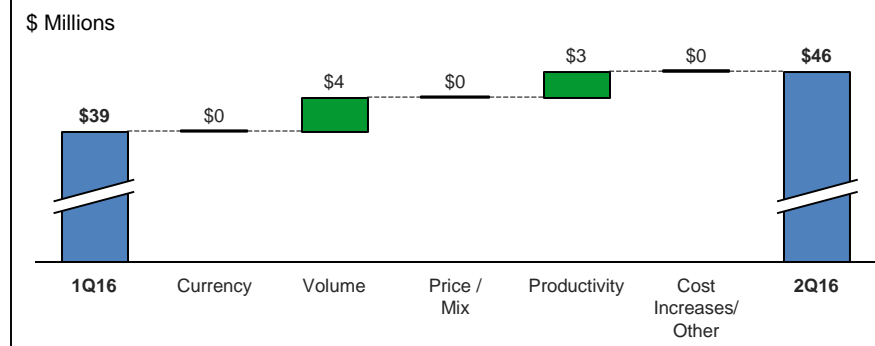
EPS Sequential Quarter Bridge



GRP Sequential Quarter Bridge

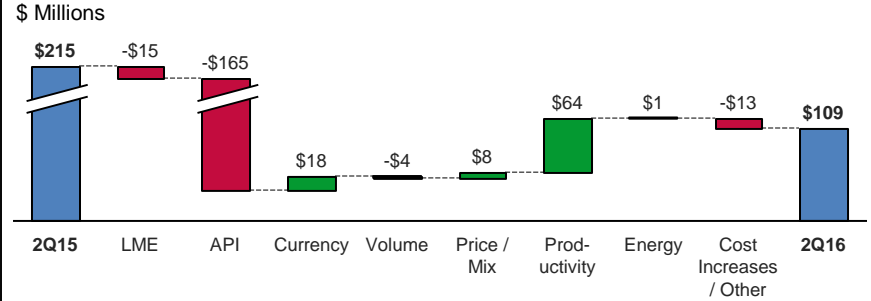


TCS Sequential Quarter Bridge

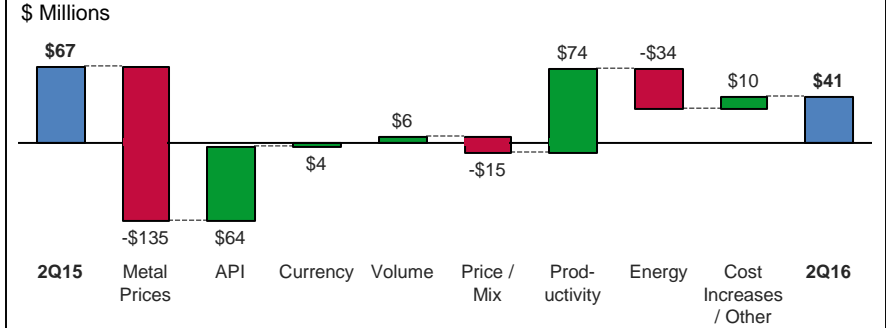


Upstream Segment Bridges – 2Q16

Alumina Year-over-Year Bridge

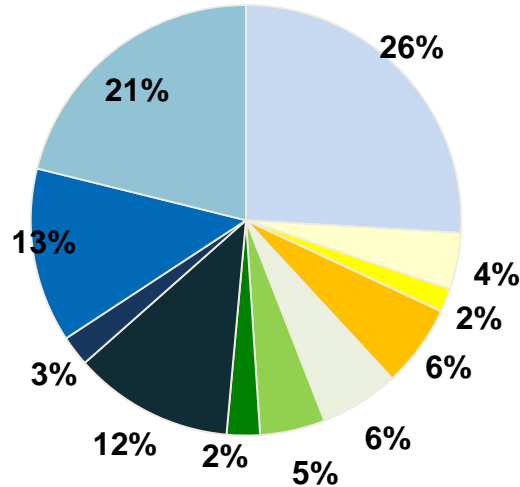


Primary Metals Year-over-Year Bridge



Revenue Change by Market – 2Q16

2Q16 Third-Party Revenue



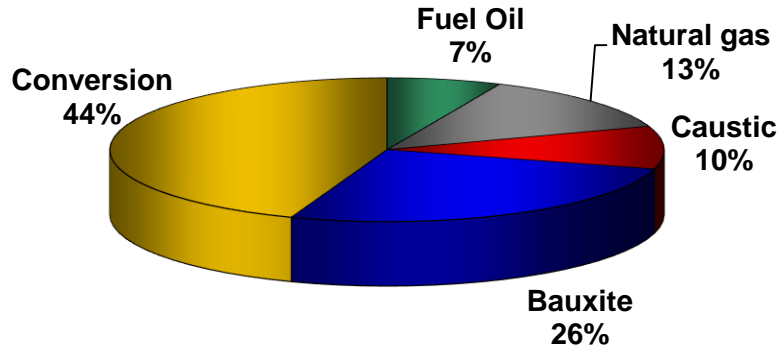
Sequential Change

Year-Over-Year Change

Aerospace	3%	9%
Automotive	3%	6%
Brazing	3%	(12%)
B&C	13%	3%
Comm. Transport	2%	(21%)
Industrial Products	2%	(15%)
IGT	7%	42%
Packaging	20%	(1%)
Distribution/Other	(3%)	14%
Alumina	27%	(25%)
Primary Metals	0%	(27%)

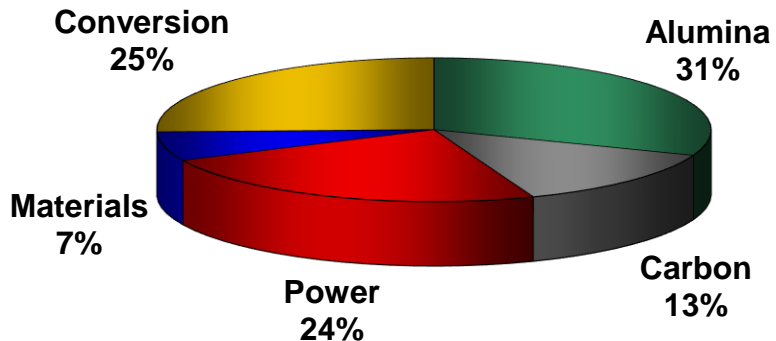
Composition of Upstream Production Costs

Refining Cost Structure



Input Cost	Inventory flow	Pricing convention	Annual ATOI Sensitivity
Fuel oil	1 – 2 months	Prior month	\$2m per \$1/bbl
Natural gas ¹	N/A	N/A	N/A
Caustic soda	3 - 6 months	Spot & semi-annual	\$6m per \$10/DMT

Smelting Cost Structure



Input Cost	Inventory flow	Pricing convention	Annual ATOI Sensitivity
Coke	1 - 2 months	Spot, quarterly & semi-annual	\$5m per \$10/MT
Alumina	~2 months	30 days lag API	\$30m per \$10/MT
Pitch	1 - 2 months	Spot, quarterly & semi-annual	\$1m per \$10/MT

¹Natural gas information related to Point Comfort will no longer apply as we are curtailing the plant. Australia is priced on a rolling 16 quarter average

Special Items

	Pre-tax, Before NCI		After-tax, After NCI		Income Statement Classification	Segment
	1Q16	2Q16	1Q16	2Q16		
\$ Millions, except per-share amounts						
Income from Continuing Operations	\$41	\$330	\$16	\$135		
Income per Diluted Share	-	-	\$0.00	\$0.09		
Tax Items	-	-	(\$12)	(\$44)	Income Taxes	Corporate
Portfolio Transaction Costs	(\$18)	(\$45)	(\$17)	(\$37)	SG&A	Corporate
Restructuring-Related	(\$96)	(\$26)	(\$63)	(\$17)	Restructuring and Other Charges/COGS	Corporate
Mark-to-Market Energy Contracts	-	(\$6)	-	(\$3)	Other Expenses, Net	Corporate
Gain on Sale	-	\$27	-	\$11	Other Income, Net	Corporate
Supplier Arbitration Recovery	-	\$14	-	\$12	Other Income, Net	Corporate
Special Items	(\$114)	(\$36)	(\$92)	(\$78)		
Adjusted Net Income from Continuing Ops excl. Special Items	\$155	\$366	\$108	\$213		
Adjusted Net Income per Diluted Share excl. Special Items	-	-	\$0.07	\$0.15		

Alcoa Upstream Capacity Closed, Sold and Idled

Smelting Capacity

Closed/sold since December 2007

Facility	Year	kmt
Baie Comeau	2008	53
Eastalco	2010	195
Badin	2010	60
Tennessee	2011	215
Rockdale	2011	76
Baie Comeau	2013	105
Fusina	2013	44
Massena East	2013	41
Massena East	2014	84
Point Henry	2014	190
Portovesme	2014	150
Mt. Holly (sale)	2014	115
Pocos	2015	96
Warrick	2016	269
Total		1,693

Idled

Facility	Year	kmt
Portland	2008	30
Rockdale	2008	191
Aviles	2012	32
La Coruna	2012	24
Sao Luis	2013	97
Sao Luis	2014	97
Sao Luis	2015	74
Wenatchee	2015	184
Total		729

Refining Capacity

Closed/sold since December 2007

Facility	Year	kmt
Jamalco (sale)	2014	779
Total		779

Idled

Facility	Year	kmt
Point Comfort	2008	340
Suriname	2009	870
Suriname	2015	1,337
Point Comfort	2016	1,508
Total		4,055

Reconciliation of ATOI to Consolidated Net Income (Loss) Attributable to Alcoa

(in millions)	1Q15	2Q15	3Q15	4Q15	2015	1Q16	2Q16
Total segment ATOI ⁽¹⁾	\$656	\$567	\$410	\$273	\$1,906	\$291	\$444
Unallocated amounts (net of tax):							
Impact of LIFO	7	36	50	43	136	4	(10)
Metal price lag	(23)	(39)	(48)	(23)	(133)	1	7
Interest expense	(80)	(80)	(80)	(84)	(324)	(83)	(84)
Noncontrolling interests	(60)	(67)	(62)	64	(125)	5	(43)
Corporate expense	(62)	(65)	(72)	(67)	(266)	(55)	(77)
Impairment of goodwill	–	–	–	(25)	(25)	–	–
Restructuring and other charges	(161)	(159)	(48)	(575)	(943)	(61)	(15)
Other	(82)	(53)	(106)	(307)	(548)	(86)	(87)
Consolidated net income (loss) attributable to Alcoa	\$195	\$140	\$44	\$(701)	\$(322)	\$16	\$135

⁽¹⁾ Total segment ATOI is the summation of the respective ATOI of Alcoa's five reportable segments, which represent the two components of the Company, an Upstream business and a Value-Add business. Upstream is composed of the Alumina and Primary Metals segments and Value-Add is composed of the Global Rolled Products, Engineered Products and Solutions, and Transportation and Construction Solutions segments. As such, in all periods presented, ATOI of the Upstream business is equivalent to the summation of the respective ATOI of the Alumina and Primary Metals segments, and, likewise, ATOI of the Value-Add business is equivalent to the summation of the respective ATOI of the Global Rolled Products, Engineered Products and Solutions, and Transportation and Construction Solutions segments.

On September 28, 2015, Alcoa announced that its Board of Directors approved a plan to separate into two standalone, publicly-traded companies. One such company will be named Alcoa Corporation and will include Upstream. Additionally, the future Alcoa Corporation will include the Warrick, IN rolling operations and the equity interest in the rolling mill at the joint venture in Saudi Arabia, both of which are currently part of the Global Rolled Products segment of Alcoa Inc. The other such company will be named Arconic and will include Value-Add, except for the Warrick, IN rolling operations and the equity interest in the rolling mill at the joint venture in Saudi Arabia.

Reconciliation of Adjusted Income

(in millions, except per-share amounts)	Income			Diluted EPS ⁽⁵⁾		
	Quarter ended			Quarter ended		
	June 30, 2015	March 31, 2016	June 30, 2016	June 30, 2015	March 31, 2016	June 30, 2016
Net income attributable to Alcoa	\$140	\$16	\$135	\$0.10	\$0.00	\$0.09
Special items ⁽¹⁾ :						
Restructuring and other charges	217	93	23			
Discrete tax items ⁽²⁾	(4)	4	(5)			
Other special items ⁽³⁾	(31)	31	62			
Tax impact ⁽⁴⁾	(52)	(34)	(7)			
Noncontrolling interests impact ⁽⁴⁾	(20)	(2)	5			
Net income attributable to Alcoa – as adjusted	\$250	\$108	\$213	0.19	0.07	0.15

Net income attributable to Alcoa – as adjusted is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management reviews the operating results of Alcoa excluding the impacts of restructuring and other charges, discrete 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 that it is appropriate to consider both Net income attributable to Alcoa determined under GAAP as well as Net income attributable to Alcoa – as adjusted.

⁽¹⁾ In the second quarter of 2016, management changed the manner in which special items are presented in Alcoa’s reconciliation of Adjusted Income. This change resulted in special items being presented on a pretax basis and the related tax and noncontrolling interests impacts on special items being aggregated into separate respective line items. The special items for all prior periods presented were updated to conform to the current period presentation.

⁽²⁾ Discrete tax items include the following:

- for the quarter ended June 30, 2015, a net benefit for a number of small items;
- for the quarter ended March 31, 2016, a net charge for a number of small items; and
- for the quarter ended June 30, 2016, a benefit for one item.

Reconciliation of Adjusted Income, continued

⁽³⁾ Other special items include the following:

- for the quarter ended June 30, 2015, a gain on the sale of land in the United States (\$29), a favorable tax impact related to the interim period treatment of operational losses in certain foreign jurisdictions for which no tax benefit was recognized (\$21), costs associated with the then-planned acquisition of RTI International Metals (\$6), a net unfavorable change in certain mark-to-market energy derivative contracts (\$5), an unfavorable tax impact resulting from the difference between Alcoa's consolidated estimated annual effective tax rate and the statutory rates applicable to special items (\$4), and a write-down of inventory related to the permanent closure of both a smelter in Brazil and a power station in Australia (\$4);
- for the quarter ended March 31, 2016, costs associated with the planned separation of Alcoa (\$18), an unfavorable tax impact resulting from the difference between Alcoa's consolidated estimated annual effective tax rate and the statutory rates applicable to special items (\$8), a write-down of inventory related to the permanent closure of a smelter in the United States (\$3), and an unfavorable tax impact related to the interim period treatment of operational losses in certain foreign jurisdictions for which no tax benefit was recognized (\$2); and
- for the quarter ended June 30, 2016, an unfavorable tax impact resulting from the difference between Alcoa's consolidated estimated annual effective tax rate and the statutory rates applicable to special items (\$60), costs associated with the planned separation of Alcoa (\$45), a gain on the sale of an equity investment in a natural gas pipeline in Australia (\$27), a benefit for an arbitration recovery related to a 2010 fire at the Iceland smelter (\$14), a favorable tax impact related to the interim period treatment of operational losses in certain foreign jurisdictions for which no tax benefit was recognized (\$11), a net unfavorable change in certain mark-to-market energy derivative contracts (\$6), and a write-down of inventory related to two previously curtailed facilities (\$3).

⁽⁴⁾ The tax impact on special items is based on the applicable statutory rates whereby the difference between such rates and Alcoa's consolidated estimated annual effective tax rate is itself a special item (see footnote 3 above). The noncontrolling interests impact on special items represents Alcoa's partners' share of certain special items.

⁽⁵⁾ The average number of shares applicable to diluted EPS for Net income attributable to Alcoa common shareholders excludes certain share equivalents as their effect was anti-dilutive. However, certain of these share equivalents may become dilutive in the EPS calculation applicable to Net income attributable to Alcoa common shareholders – as adjusted due to a larger and/or positive numerator. Specifically:

- for the quarter ended June 30, 2015, no additional share equivalents were dilutive based on Net income attributable to Alcoa common shareholders – as adjusted, resulting in a diluted average number of shares of 1,236,918,280;
- for the quarter ended March 31, 2016, share equivalents associated with outstanding employee stock options and awards were dilutive based on Net income attributable to Alcoa common shareholders – as adjusted, resulting in a diluted average number of shares of 1,324,558,308; and
- for the quarter ended June 30, 2016, no additional share equivalents were dilutive based on Net income attributable to Alcoa common shareholders – as adjusted, resulting in a diluted average number of shares of 1,356,158,542.

Reconciliation of Alcoa Adjusted EBITDA

(\$ in millions)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2Q15	1Q16	2Q16
Net income (loss) attributable to Alcoa	\$1,233	\$2,248	\$2,564	\$(74)	\$(1,151)	\$254	\$611	\$191	\$(2,285)	\$268	\$(322)	\$140	\$16	\$135
Add:														
Net income (loss) attributable to noncontrolling interests	259	436	365	221	61	138	194	(29)	41	(91)	125	67	(5)	43
Cumulative effect of accounting changes	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Loss (income) from discontinued operations	50	(22)	250	303	166	8	3	–	–	–	–	–	–	–
Provision (benefit) for income taxes	464	853	1,623	342	(574)	148	255	162	428	320	445	75	30	152
Other (income) expenses, net	(478)	(236)	(1,920)	(59)	(161)	5	(87)	(341)	(25)	47	2	–	34	(37)
Interest expense	339	384	401	407	470	494	524	490	453	473	498	124	127	129
Restructuring and other charges	266	507	268	939	237	207	281	172	782	1,168	1,195	217	93	23
Impairment of goodwill	–	–	–	–	–	–	–	–	1,731	–	25	–	–	–
Provision for depreciation, depletion, and amortization	1,227	1,252	1,244	1,234	1,311	1,450	1,479	1,460	1,421	1,371	1,280	319	309	309
Adjusted EBITDA	\$3,362	\$5,422	\$4,795	\$3,313	\$359	\$2,704	\$3,260	\$2,105	\$2,546	\$3,556	\$3,248	\$942	\$604	\$754
Sales	\$24,149	\$28,950	\$29,280	\$26,901	\$18,439	\$21,013	\$24,951	\$23,700	\$23,032	\$23,906	\$22,534	\$5,897	\$4,947	\$5,295
Adjusted EBITDA Margin	13.9%	18.7%	16.4%	12.3%	1.9%	12.9%	13.1%	8.9%	11.1%	14.9%	14.4%	16.0%	12.2%	14.2%

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) 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'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.

Reconciliation of Alumina Adjusted EBITDA

(\$ in millions, except per metric ton amounts)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2Q15	1Q16	2Q16
After-tax operating income (ATOI)	\$682	\$1,050	\$956	\$727	\$112	\$301	\$607	\$90	\$259	\$370	\$746	\$215	\$8	\$109
Add:														
Depreciation, depletion, and amortization	172	192	267	268	292	406	444	455	426	387	296	77	63	66
Equity loss (income)	–	2	(1)	(7)	(8)	(10)	(25)	(5)	4	29	41	11	14	7
Income taxes	246	428	340	277	(22)	60	179	(27)	66	153	300	87	5	40
Other	(8)	(6)	2	(26)	(92)	(5)	(44)	(8)	(6)	(28)	1	–	–	(7)
Adjusted EBITDA	<u>\$1,092</u>	<u>\$1,666</u>	<u>\$1,564</u>	<u>\$1,239</u>	<u>\$282</u>	<u>\$752</u>	<u>\$1,161</u>	<u>\$505</u>	<u>\$749</u>	<u>\$911</u>	<u>\$1,384</u>	<u>\$390</u>	<u>\$90</u>	<u>\$215</u>
Production (thousand metric tons) (kmt)	14,598	15,128	15,084	15,256	14,265	15,922	16,486	16,342	16,618	16,606	15,720	3,977	3,330	3,316
Adjusted EBITDA / Production (\$ per metric ton)	\$75	\$110	\$104	\$81	\$20	\$47	\$70	\$31	\$45	\$55	\$88	\$98	\$27	\$65

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) 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. The Other line in the table above includes gains/losses on asset sales and other non-operating items. 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'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.

Reconciliation of Primary Metals Adjusted EBITDA

(\$ in millions, except per metric ton amounts)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2Q15	1Q16	2Q16
After-tax operating income (ATOI)	\$822	\$1,760	\$1,445	\$931	\$(612)	\$488	\$481	\$309	\$(20)	\$594	\$155	\$67	\$14	\$41
Add:														
Depreciation, depletion, and amortization	368	395	410	503	560	571	556	532	526	494	429	109	102	101
Equity loss (income)	12	(82)	(57)	(2)	26	(1)	7	27	51	34	12	5	(4)	–
Income taxes	307	726	542	172	(365)	96	92	106	(74)	203	(28)	6	(16)	–
Other	(96)	(13)	(27)	(32)	(176)	(7)	2	(422)	(8)	(6)	(2)	–	(1)	1
Adjusted EBITDA	<u>\$1,413</u>	<u>\$2,786</u>	<u>\$2,313</u>	<u>\$1,572</u>	<u>\$(567)</u>	<u>\$1,147</u>	<u>\$1,138</u>	<u>\$552</u>	<u>\$475</u>	<u>\$1,319</u>	<u>\$566</u>	<u>\$187</u>	<u>\$95</u>	<u>\$143</u>
Production (thousand metric tons) (kmt)	3,554	3,552	3,693	4,007	3,564	3,586	3,775	3,742	3,550	3,125	2,811	701	655	595
Adjusted EBITDA / Production (\$ per metric ton)	\$398	\$784	\$626	\$392	\$(159)	\$320	\$301	\$148	\$134	\$422	\$201	\$267	\$145	\$240

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) 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. The Other line in the table above includes gains/losses on asset sales and other non-operating items. 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'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.

Reconciliation of Upstream⁽¹⁾ Adjusted EBITDA

(in millions)	2008	2009	2010	2011	2012	2013	2014	2015	2Q15	1Q16	2Q16
After-tax operating income (ATOI)	\$1,658	\$(500)	\$789	\$1,088	\$399	\$239	\$964	\$901	\$282	\$22	\$150
Add:											
Depreciation, depletion, and amortization	771	852	977	1,000	987	952	881	725	186	165	167
Equity (income) loss	(9)	18	(11)	(18)	22	55	63	53	16	10	7
Income taxes	449	(387)	156	271	79	(8)	356	272	93	(11)	40
Other	(58)	(268)	(12)	(42)	(430)	(14)	(34)	(1)	–	(1)	(6)
Adjusted EBITDA	<u>\$2,811</u>	<u>\$(285)</u>	<u>\$1,899</u>	<u>\$2,299</u>	<u>\$1,057</u>	<u>\$1,224</u>	<u>\$2,230</u>	<u>\$1,950</u>	<u>\$577</u>	<u>\$185</u>	<u>\$358</u>

- (1) Upstream is composed of the Alumina and Primary Metals segments. On September 28, 2015, Alcoa announced that its Board of Directors approved a plan to separate into two standalone, publicly-traded companies. One such company will be named Alcoa Corporation and will include Upstream. Additionally, the future Alcoa Corporation will include the Warrick, IN rolling operations and the equity interest in the rolling mill at the joint venture in Saudi Arabia, both of which are currently part of the Global Rolled Products segment of Alcoa Inc. See ATOI Reconciliation for a reconciliation of Alcoa Inc.'s total segment ATOI, which includes the Upstream ATOI presented in the table above, to its consolidated net income.

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) 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. The Other line in the table above includes gains/losses on asset sales and other non-operating items. 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'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.

Reconciliation of Global Rolled Products Adjusted EBITDA

(\$ in millions, except per metric ton amounts)	2005	2006	2007	2008	2009	2010 ⁽¹⁾	2011 ⁽¹⁾	2012 ⁽¹⁾	2013	2014	2015	2Q15	1Q16	2Q16
After-tax operating income (ATOI)	\$278	\$233	\$178	\$(3)	\$(49)	\$220	\$266	\$358	\$292	\$245	\$244	\$76	\$68	\$68
Add:														
Depreciation, depletion, and amortization	220	223	227	216	227	238	237	229	226	235	227	56	56	55
Equity loss	–	2	–	–	–	–	3	6	13	27	32	7	11	10
Income taxes	121	58	92	35	48	92	104	167	123	89	109	25	34	28
Other	1	20	1	6	(2)	1	1	(2)	–	(1)	(1)	–	(1)	1
Adjusted EBITDA	\$620	\$536	\$498	\$254	\$224	\$551	\$611	\$758	\$654	\$595	\$611	\$164	\$168	\$162
Total shipments (thousand metric tons) (kmt)	2,250	2,376	2,482	2,361	1,888	1,755	1,866	1,943	1,989	2,056	1,836	479	449	497
Adjusted EBITDA / Total shipments (\$ per metric ton)	\$276	\$226	\$201	\$108	\$119	\$314	\$327	\$390	\$329	\$289	\$333	\$342	\$374	\$326

⁽¹⁾ The average Adjusted EBITDA per metric ton of these three years equals \$344 and represents the average historical high for the Global Rolled Products segment. Alcoa has a 2016 target to meet or exceed this average historical high.

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) 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. The Other line in the table above includes gains/losses on asset sales and other non-operating items. 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'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.

Reconciliation of Engineered Products and Solutions Adjusted EBITDA

(\$ in millions)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2Q15	1Q16	2Q16
After-tax operating income (ATOI)	\$183	\$237	\$351	\$465	\$321	\$355	\$436	\$484	\$569	\$579	\$595	\$165	\$162	\$180
Add:														
Depreciation, depletion, and amortization	114	111	114	118	118	114	120	122	124	137	233	54	65	62
Income taxes	86	128	186	225	159	182	224	248	286	298	282	81	78	87
Other	(12)	2	2	2	2	-	-	-	-	-	-	1	-	-
Adjusted EBITDA	\$371	\$478	\$653	\$810	\$600	\$651	\$780	\$854	\$979	\$1,014	\$1,110	\$301	\$305	\$329
Third-party sales	\$2,966	\$3,406	\$3,821	\$4,215	\$3,355	\$3,225	\$3,716	\$3,863	\$4,054	\$4,217	\$5,342	\$1,279	\$1,449	\$1,465
Adjusted EBITDA Margin	12.5%	14.0%	17.1%	19.2%	17.9%	20.2%	21.0%	22.1%	24.1%	24.0%	20.8%	23.5%	21.0%	22.5%

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) 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. The Other line in the table above includes gains/losses on asset sales and other non-operating items. 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'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.

Reconciliation of Transportation and Construction Solutions Adjusted EBITDA

(\$ in millions)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2Q15	1Q16	2Q16
After-tax operating income (ATOI)	\$94	\$129	\$94	\$82	\$5	\$73	\$109	\$126	\$167	\$180	\$166	\$44	\$39	\$46
Add:														
Depreciation, depletion, and amortization	50	45	55	53	65	48	45	42	42	42	43	11	11	12
Equity loss (income)	–	6	–	–	(2)	(2)	(1)	–	–	–	–	–	–	–
Income taxes	30	27	7	–	(21)	18	38	49	67	69	63	17	14	18
Other	1	(4)	(10)	–	–	–	(1)	(9)	(2)	–	(1)	(1)	–	–
Adjusted EBITDA	\$175	\$203	\$146	\$135	\$47	\$137	\$190	\$208	\$274	\$291	\$271	\$71	\$64	\$76
Third-party sales	\$1,954	\$2,204	\$2,249	\$2,270	\$1,537	\$1,656	\$1,936	\$1,914	\$1,951	\$2,021	\$1,882	\$492	\$429	\$467
Adjusted EBITDA Margin	9.0%	9.2%	6.5%	5.9%	3.1%	8.3%	9.8%	10.9%	14.0%	14.4%	14.4%	14.4%	14.9%	16.3%

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) 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. The Other line in the table above includes gains/losses on asset sales and other non-operating items. 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'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.

Reconciliation of Value-Add⁽¹⁾ Adjusted EBITDA

(\$ in millions)	2008	2009	2010	2011	2012	2013	2014	2015	2Q15	1Q16	2Q16
After-tax operating income (ATOI)	\$544	\$277	\$648	\$811	\$968	\$1,028	\$1,004	\$1,005	\$285	\$269	\$294
Add:											
Depreciation, depletion, and amortization	387	410	400	402	393	392	414	503	121	132	129
Equity (income) loss	–	(2)	(2)	2	6	13	27	32	7	11	10
Income taxes	260	186	292	366	464	476	456	454	123	126	133
Other	8	–	1	–	(11)	(2)	(1)	(2)	–	(1)	1
Adjusted EBITDA	\$1,199	\$871	\$1,339	\$1,581	\$1,820	\$1,907	\$1,900	\$1,992	\$536	\$537	\$567
Third-party sales	\$15,451	\$10,961	\$11,158	\$13,294	\$13,155	\$13,111	\$13,589	\$13,462	\$3,439	\$3,275	\$3,482
Adjusted EBITDA Margin	7.8%	7.9%	12.0%	11.9%	13.8%	14.5%	14.0%	14.8%	15.6%	16.4%	16.3%

⁽¹⁾ Value Add is composed of the Global Rolled Products, Engineered Products and Solutions, and Transportation and Construction Solutions segments. On September 28, 2015, Alcoa announced that its Board of Directors approved a plan to separate into two standalone, publicly-traded companies. One such company will be named Arconic and will include Value-Add, except for the Warrick, IN rolling operations and the equity interest in the rolling mill at the joint venture in Saudi Arabia, both of which are currently part of the Global Rolled Products segment of Alcoa Inc. and will be included in the other company, Alcoa Corporation. See ATOI Reconciliation for a reconciliation of Alcoa Inc.'s total segment ATOI, which includes the Value-Add ATOI presented in the table above, to its consolidated net income.

Alcoa's definition of Adjusted EBITDA (Earnings before interest, taxes, depreciation, and amortization) 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. The Other line in the table above includes gains/losses on asset sales and other non-operating items. 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'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.

Reconciliation of Free Cash Flow

(in millions)	Year ended					Quarter ended		
	December 31, 2011	December 31, 2012	December 31, 2013	December 31, 2014	December 31, 2015	June 30, 2015	March 31, 2016	June 30, 2016
Cash from operations	\$2,193	\$1,497	\$1,578	\$1,674	\$1,582	\$472	\$(430)	\$332
Capital expenditures	(1,287)	(1,261)	(1,193)	(1,219)	(1,180)	(267)	(251)	(277)
Free cash flow	\$906	\$236	\$385	\$455	\$402	\$205	\$(681)	\$55

Free Cash Flow is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management reviews cash flows generated from operations after taking into consideration capital expenditures due to the fact that these expenditures are considered necessary to maintain and expand Alcoa's asset base and are expected to generate future cash flows from operations. It is important to note that Free Cash Flow does not represent the residual cash flow available for discretionary expenditures since other non-discretionary expenditures, such as mandatory debt service requirements, are not deducted from the measure.

Reconciliation of Net Debt

(in millions)

	December 31,				March 31,	June 30,
	2011 ⁽¹⁾	2012 ⁽¹⁾	2013 ⁽¹⁾	2014 ⁽¹⁾	2015 ⁽¹⁾	2016
Short-term borrowings	\$62	\$53	\$57	\$54	\$38	\$33
Commercial paper	224	–	–	–	–	–
Long-term debt due within one year	445	465	655	29	21	772
Long-term debt, less amount due within one year	8,542	8,226	7,534	8,704	8,993	8,257
Total debt	9,273	8,744	8,246	8,787	9,052	9,069
Less: Cash and cash equivalents	1,939	1,861	1,437	1,877	1,919	1,384
Net debt	\$7,334	\$6,883	\$6,809	\$6,910	\$7,133	\$7,685

⁽¹⁾ In the first quarter of 2016, Alcoa adopted changes issued by the Financial Accounting Standards Board to the presentation of debt issuance costs, which require such costs to be classified as a direct deduction from the carrying value of the related debt liability on an entity's balance sheet. As such, all debt issuance costs were classified as a contra liability in the Long-term debt, less amount due within one year line item for all 2016 periods presented in the table above. These changes are required to be applied on a retrospective basis; therefore, all periods prior to 2016 presented in the table above were updated to conform to the presentation of the 2016 periods. As a result, \$98, \$85, \$73, \$65, and \$51 of debt issuance costs were reflected as deductions in the Long-term debt, less amount due within one year line item for 2011, 2012, 2013, 2014, and 2015, respectively, presented in the table above.

Net debt is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management assesses Alcoa's leverage position after factoring in available cash that could be used to repay outstanding debt.