

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM 10-Q**

(Mark One)

**QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Quarterly Period Ended September 30, 2015

OR

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number 1-3610

**ALCOA INC.**

(Exact name of registrant as specified in its charter)

**PENNSYLVANIA**  
(State of incorporation)

**25-0317820**  
(I.R.S. Employer  
Identification No.)

**390 Park Avenue, New York, New York**  
(Address of principal executive offices)

**10022-4608**  
(Zip code)

**Investor Relations**                    **212-836-2674**  
**Office of the Secretary**           **212-836-2732**  
(Registrant's telephone number including area code)

(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months, and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months. Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

As of October 16, 2015, 1,310,128,840 shares of common stock, par value \$1.00 per share, of the registrant were outstanding.

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**PART I – FINANCIAL INFORMATION**

**Item 1. Financial Statements.**

**Alcoa and subsidiaries**

**Statement of Consolidated Operations (unaudited)**

**(in millions, except per-share amounts)**

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Sales (I)	\$ 5,573	\$ 6,239	\$17,289	\$17,529
Cost of goods sold (exclusive of expenses below)	4,559	4,904	13,665	14,164
Selling, general administrative, and other expenses	261	243	717	724
Research and development expenses	55	57	178	158
Provision for depreciation, depletion, and amortization	318	347	958	1,036
Restructuring and other charges (D)	66	209	460	780
Interest expense	123	126	369	351
Other (income) expenses, net (H)	(15)	23	(27)	53
Total costs and expenses	5,367	5,909	16,320	17,266
Income before income taxes	206	330	969	263
Provision for income taxes (K)	100	199	401	200
Net income	106	131	568	63
Less: Net income (loss) attributable to noncontrolling interests	62	(18)	189	(46)
<b>NET INCOME ATTRIBUTABLE TO ALCOA</b>	<b>\$ 44</b>	<b>\$ 149</b>	<b>\$ 379</b>	<b>\$ 109</b>
<b>AMOUNTS ATTRIBUTABLE TO ALCOA COMMON SHAREHOLDERS (J):</b>				
Net income	\$ 26	\$ 149	\$ 327	\$ 108
Earnings per share:				
Basic	\$ 0.02	\$ 0.13	\$ 0.26	\$ 0.09
Diluted	\$ 0.02	\$ 0.12	\$ 0.26	\$ 0.09
Dividends paid per share	\$ 0.03	\$ 0.03	\$ 0.09	\$ 0.09

The accompanying notes are an integral part of the consolidated financial statements.

**Alcoa and subsidiaries**  
**Statement of Consolidated Comprehensive Loss (unaudited)**  
**(in millions)**

	<u>Alcoa</u>		<u>Noncontrolling Interests</u>		<u>Total</u>	
	<u>Third quarter ended September 30,</u>		<u>Third quarter ended September 30,</u>		<u>Third quarter ended September 30,</u>	
	<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>
Net income (loss)	\$ 44	\$ 149	\$ 62	\$ (18)	\$ 106	\$ 131
Other comprehensive loss, net of tax (C):						
Change in unrecognized net actuarial loss and prior service cost/benefit related to pension and other postretirement benefits	111	126	9	(4)	120	122
Foreign currency translation adjustments	(889)	(774)	(299)	(226)	(1,188)	(1,000)
Net change in unrealized gains on available-for-sale securities	(2)	(1)	—	—	(2)	(1)
Net change in unrecognized gains on cash flow hedges	214	(19)	1	5	215	(14)
Total Other comprehensive loss, net of tax	<u>(566)</u>	<u>(668)</u>	<u>(289)</u>	<u>(225)</u>	<u>(855)</u>	<u>(893)</u>
Comprehensive loss	<u>\$ (522)</u>	<u>\$ (519)</u>	<u>\$ (227)</u>	<u>\$ (243)</u>	<u>\$ (749)</u>	<u>\$ (762)</u>
	<u>Nine months ended September 30,</u>		<u>Nine months ended September 30,</u>		<u>Nine months ended September 30,</u>	
	<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>
Net income (loss)	\$ 379	\$ 109	\$ 189	\$ (46)	\$ 568	\$ 63
Other comprehensive loss, net of tax (C):						
Change in unrecognized net actuarial loss and prior service cost/benefit related to pension and other postretirement benefits	212	217	14	(3)	226	214
Foreign currency translation adjustments	(1,649)	(384)	(517)	(80)	(2,166)	(464)
Net change in unrealized gains on available-for-sale securities	(2)	—	—	—	(2)	—
Net change in unrecognized losses on cash flow hedges	584	(10)	(3)	(1)	581	(11)
Total Other comprehensive loss, net of tax	<u>(855)</u>	<u>(177)</u>	<u>(506)</u>	<u>(84)</u>	<u>(1,361)</u>	<u>(261)</u>
Comprehensive loss	<u>\$ (476)</u>	<u>\$ (68)</u>	<u>\$ (317)</u>	<u>\$ (130)</u>	<u>\$ (793)</u>	<u>\$ (198)</u>

The accompanying notes are an integral part of the consolidated financial statements.

**Alcoa and subsidiaries**  
**Consolidated Balance Sheet (unaudited)**  
**(in millions)**

	September 30, 2015	December 31, 2014
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 1,739	\$ 1,877
Receivables from customers, less allowances of \$12 in 2015 and \$14 in 2014 (L)	1,525	1,395
Other receivables (L)	669	733
Inventories (F)	3,559	3,082
Prepaid expenses and other current assets	1,100	1,182
Total current assets	<u>8,592</u>	<u>8,269</u>
Properties, plants, and equipment	33,237	35,517
Less: accumulated depreciation, depletion, and amortization	<u>18,485</u>	<u>19,091</u>
Properties, plants, and equipment, net	<u>14,752</u>	<u>16,426</u>
Goodwill (E)	5,443	5,247
Investments	1,647	1,944
Deferred income taxes	2,265	2,754
Other noncurrent assets (E & G)	3,888	2,759
Total assets	<u>\$ 36,587</u>	<u>\$ 37,399</u>
<b>LIABILITIES</b>		
Current liabilities:		
Short-term borrowings	\$ 50	\$ 54
Accounts payable, trade	2,734	3,152
Accrued compensation and retirement costs	825	937
Taxes, including income taxes	421	348
Other current liabilities	981	1,021
Long-term debt due within one year	136	29
Total current liabilities	<u>5,147</u>	<u>5,541</u>
Long-term debt, less amount due within one year	9,091	8,769
Accrued pension benefits	2,968	3,291
Accrued other postretirement benefits	2,110	2,155
Other noncurrent liabilities and deferred credits	2,580	2,849
Total liabilities	<u>21,896</u>	<u>22,605</u>
<b>CONTINGENCIES AND COMMITMENTS (G)</b>		
<b>EQUITY</b>		
Alcoa shareholders' equity:		
Preferred stock	55	55
Mandatory convertible preferred stock	3	3
Common stock (E)	1,391	1,304
Additional capital (E)	9,954	9,284
Retained earnings	9,553	9,379
Treasury stock, at cost	(2,830)	(3,042)
Accumulated other comprehensive loss (C)	(5,532)	(4,677)
Total Alcoa shareholders' equity	<u>12,594</u>	<u>12,306</u>
Noncontrolling interests	2,097	2,488
Total equity	<u>14,691</u>	<u>14,794</u>
Total liabilities and equity	<u>\$ 36,587</u>	<u>\$ 37,399</u>

The accompanying notes are an integral part of the consolidated financial statements.

**Alcoa and subsidiaries**  
**Statement of Consolidated Cash Flows (unaudited)**  
**(in millions)**

	Nine months ended September 30,	
	2015	2014
<b>CASH FROM OPERATIONS</b>		
Net income	\$ 568	\$ 63
Adjustments to reconcile net income to cash from operations:		
Depreciation, depletion, and amortization	959	1,036
Deferred income taxes	(18)	2
Equity income, net of dividends	137	88
Restructuring and other charges (D)	460	780
Net gain from investing activities – asset sales (H)	(69)	(44)
Net periodic pension benefit cost (M)	365	321
Stock-based compensation	78	71
Excess tax benefits from stock-based payment arrangements	(9)	(7)
Other	(65)	67
Changes in assets and liabilities, excluding effects of acquisitions, divestitures, and foreign currency translation adjustments:		
(Increase) in receivables	(97)	(665)
(Increase) in inventories	(176)	(485)
Decrease (increase) in prepaid expenses and other current assets	31	(28)
(Decrease) increase in accounts payable, trade	(240)	83
(Decrease) in accrued expenses	(424)	(456)
Increase (decrease) in taxes, including income taxes	135	(51)
Pension contributions	(363)	(446)
(Increase) decrease in noncurrent assets (G)	(348)	5
(Decrease) in noncurrent liabilities	(207)	(118)
<b>CASH PROVIDED FROM OPERATIONS</b>	<b>717</b>	<b>216</b>
<b>FINANCING ACTIVITIES</b>		
Net change in short-term borrowings (original maturities of three months or less)	(6)	—
Net change in commercial paper	—	99
Additions to debt (original maturities greater than three months)	1,534	2,881
Debt issuance costs	(2)	(16)
Payments on debt (original maturities greater than three months)	(1,551)	(1,717)
Proceeds from exercise of employee stock options	26	128
Excess tax benefits from stock-based payment arrangements	9	7
Issuance of mandatory convertible preferred stock	—	1,213
Dividends paid to shareholders	(149)	(105)
Distributions to noncontrolling interests	(72)	(75)
Contributions from noncontrolling interests	—	44
Acquisitions of noncontrolling interests	—	(28)
<b>CASH (USED FOR) PROVIDED FROM FINANCING ACTIVITIES</b>	<b>(211)</b>	<b>2,431</b>
<b>INVESTING ACTIVITIES</b>		
Capital expenditures	(782)	(750)
Acquisitions, net of cash acquired (E)	97	—
Proceeds from the sale of assets and businesses (E)	112	6
Additions to investments	(86)	(137)
Sales of investments	40	49
Net change in restricted cash	(7)	—
Other	23	25
<b>CASH USED FOR INVESTING ACTIVITIES</b>	<b>(603)</b>	<b>(807)</b>
<b>EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS</b>		
	(41)	(5)
Net change in cash and cash equivalents	(138)	1,835
Cash and cash equivalents at beginning of year	1,877	1,437
<b>CASH AND CASH EQUIVALENTS AT END OF PERIOD</b>	<b>\$ 1,739</b>	<b>\$ 3,272</b>

The accompanying notes are an integral part of the consolidated financial statements.

**Alcoa and subsidiaries**  
**Statement of Changes in Consolidated Equity (unaudited)**  
(in millions, except per-share amounts)

	Alcoa Shareholders							Non-controlling interests	Total equity
	Preferred stock	Mandatory convertible preferred stock	Common stock	Additional capital	Retained earnings	Treasury stock	Accumulated other comprehensive loss		
<b>Balance at June 30, 2014</b>	\$ 55	\$ —	\$ 1,267	\$ 7,635	\$ 9,163	\$(3,275)	\$ (3,168)	\$ 3,029	\$14,706
Net income (loss)	—	—	—	—	149	—	—	(18)	131
Other comprehensive loss (C)	—	—	—	—	—	—	(668)	(225)	(893)
Cash dividends declared:									
Preferred-Class A @ \$0.9375 per share	—	—	—	—	—	—	—	—	—
Common @ \$0.03 per share	—	—	—	—	(36)	—	—	—	(36)
Stock-based compensation	—	—	—	22	—	—	—	—	22
Common stock issued: compensation plans	—	—	—	(110)	—	146	—	—	36
Issuance of mandatory convertible preferred stock	—	3	—	1,210	—	—	—	—	1,213
Distributions	—	—	—	—	—	—	—	(20)	(20)
Purchase of equity from noncontrolling interest	—	—	—	3	—	—	—	(31)	(28)
Other	—	—	—	—	—	—	—	4	4
<b>Balance at September 30, 2014</b>	<u>\$ 55</u>	<u>\$ 3</u>	<u>\$ 1,267</u>	<u>\$ 8,760</u>	<u>\$ 9,276</u>	<u>\$(3,129)</u>	<u>\$ (3,836)</u>	<u>\$ 2,739</u>	<u>\$15,135</u>
<b>Balance at June 30, 2015</b>	\$ 55	\$ 3	\$ 1,304	\$ 9,147	\$ 9,605	\$(2,834)	\$ (4,966)	\$ 2,324	\$14,638
Net income	—	—	—	—	44	—	—	62	106
Other comprehensive loss (C)	—	—	—	—	—	—	(566)	(289)	(855)
Cash dividends declared:									
Preferred-Class A @ \$1.875 per share	—	—	—	—	(1)	—	—	—	(1)
Preferred-Class B @ \$6.71875 per share	—	—	—	—	(16)	—	—	—	(16)
Common @ \$0.06 per share	—	—	—	—	(79)	—	—	—	(79)
Stock-based compensation	—	—	—	23	—	—	—	—	23
Common stock issued: compensation plans	—	—	—	1	—	4	—	—	5
Issuance of common stock (E)	—	—	87	783	—	—	—	—	870
Distributions	—	—	—	—	—	—	—	(1)	(1)
Other	—	—	—	—	—	—	—	1	1
<b>Balance at September 30, 2015</b>	<u>\$ 55</u>	<u>\$ 3</u>	<u>\$ 1,391</u>	<u>\$ 9,954</u>	<u>\$ 9,553</u>	<u>\$(2,830)</u>	<u>\$ (5,532)</u>	<u>\$ 2,097</u>	<u>\$14,691</u>

The accompanying notes are an integral part of the consolidated financial statements.

**Alcoa and subsidiaries**
**Statement of Changes in Consolidated Equity (unaudited), continued**

(in millions, except per-share amounts)

	Alcoa Shareholders							Non-controlling interests	Total Equity
	Preferred stock	Mandatory convertible preferred stock	Common stock	Additional capital	Retained earnings	Treasury stock	Accumulated other comprehensive loss		
<b>Balance at December 31, 2013</b>	\$ 55	\$ —	\$ 1,178	\$ 7,509	\$ 9,272	\$(3,762)	\$ (3,659)	\$ 2,929	\$13,522
Net income (loss)	—	—	—	—	109	—	—	(46)	63
Other comprehensive loss (C)	—	—	—	—	—	—	(177)	(84)	(261)
Cash dividends declared:									
Preferred-Class A @ \$2.8125 per share	—	—	—	—	(1)	—	—	—	(1)
Common @ \$0.09 per share	—	—	—	—	(104)	—	—	—	(104)
Stock-based compensation	—	—	—	71	—	—	—	—	71
Common stock issued: compensation plans	—	—	—	(519)	—	633	—	—	114
Issuance of mandatory convertible preferred stock	—	3	—	1,210	—	—	—	—	1,213
Issuance of common stock	—	—	89	486	—	—	—	—	575
Distributions	—	—	—	—	—	—	—	(75)	(75)
Contributions	—	—	—	—	—	—	—	44	44
Purchase of equity from noncontrolling interest	—	—	—	3	—	—	—	(31)	(28)
Other	—	—	—	—	—	—	—	2	2
<b>Balance at September 30, 2014</b>	<u>\$ 55</u>	<u>\$ 3</u>	<u>\$ 1,267</u>	<u>\$ 8,760</u>	<u>\$ 9,276</u>	<u>\$(3,129)</u>	<u>\$ (3,836)</u>	<u>\$ 2,739</u>	<u>\$15,135</u>
<b>Balance at December 31, 2014</b>	\$ 55	\$ 3	\$ 1,304	\$ 9,284	\$ 9,379	\$(3,042)	\$ (4,677)	\$ 2,488	\$14,794
Net income	—	—	—	—	379	—	—	189	568
Other comprehensive loss (C)	—	—	—	—	—	—	(855)	(506)	(1,361)
Cash dividends declared:									
Preferred-Class A @ \$3.75 per share	—	—	—	—	(2)	—	—	—	(2)
Preferred-Class B @ \$20.15625 per share	—	—	—	—	(50)	—	—	—	(50)
Common @ \$0.12 per share	—	—	—	—	(153)	—	—	—	(153)
Stock-based compensation	—	—	—	78	—	—	—	—	78
Common stock issued: compensation plans	—	—	—	(191)	—	212	—	—	21
Issuance of common stock (E)	—	—	87	783	—	—	—	—	870
Distributions	—	—	—	—	—	—	—	(72)	(72)
Other	—	—	—	—	—	—	—	(2)	(2)
<b>Balance at September 30, 2015</b>	<u>\$ 55</u>	<u>\$ 3</u>	<u>\$ 1,391</u>	<u>\$ 9,954</u>	<u>\$ 9,553</u>	<u>\$(2,830)</u>	<u>\$ (5,532)</u>	<u>\$ 2,097</u>	<u>\$14,691</u>

The accompanying notes are an integral part of the consolidated financial statements.



## Alcoa and subsidiaries

### Notes to the Consolidated Financial Statements (unaudited)

(dollars in millions, except per-share amounts)

**A. Basis of Presentation** – The interim Consolidated Financial Statements of Alcoa Inc. and its subsidiaries (“Alcoa” or the “Company”) are unaudited. These Consolidated Financial Statements include all adjustments, consisting of normal recurring adjustments, considered necessary by management to fairly state the Company’s results of operations, financial position, and cash flows. The results reported in these Consolidated Financial Statements are not necessarily indicative of the results that may be expected for the entire year. The 2014 year-end balance sheet data was derived from audited financial statements but does not include all disclosures required by accounting principles generally accepted in the United States of America (GAAP). This Form 10-Q report should be read in conjunction with Alcoa’s Annual Report on Form 10-K for the year ended December 31, 2014, which includes all disclosures required by GAAP. Certain amounts in previously issued financial statements were reclassified to conform to the current period presentation.

### **B. Recently Adopted and Recently Issued Accounting Guidance**

#### Adopted

On January 1, 2015, Alcoa adopted changes issued by the Financial Accounting Standards Board (FASB) to reporting discontinued operations and disclosures of disposals of components of an entity. These changes require a disposal of a component to meet a higher threshold in order to be reported as a discontinued operation in an entity’s financial statements. The threshold is defined as a strategic shift that has, or will have, a major effect on an entity’s operations and financial results such as a disposal of a major geographical area or a major line of business. Additionally, the following two criteria have been removed from consideration of whether a component meets the requirements for discontinued operations presentation: (i) the operations and cash flows of a disposal component have been or will be eliminated from the ongoing operations of an entity as a result of the disposal transaction, and (ii) an entity will not have any significant continuing involvement in the operations of the disposal component after the disposal transaction. Furthermore, equity method investments now may qualify for discontinued operations presentation. These changes also require expanded disclosures for all disposals of components of an entity, whether or not the threshold for reporting as a discontinued operation is met, related to profit or loss information and/or asset and liability information of the component. The adoption of these changes had no impact on the Consolidated Financial Statements. This guidance will need to be considered in the event Alcoa initiates a disposal of a component.

In September 2015, the FASB issued changes to the accounting for measurement-period adjustments related to business combinations. Currently, an acquiring entity is required to retrospectively adjust the balance sheet amounts of the acquiree recognized at the acquisition date with a corresponding adjustment to goodwill during the measurement period, as well as revise comparative information for prior periods presented within financial statements as needed, including revising income effects, such as depreciation and amortization, as a result of changes made to the balance sheet amounts of the acquiree. Such adjustments are required when new information is obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the measurement of the amounts initially recognized or would have resulted in the recognition of additional assets or liabilities. The measurement period is the period after the acquisition date during which the acquirer may adjust the balance sheet amounts recognized for a business combination (generally up to one year from the date of acquisition). The changes eliminate the requirement to make such retrospective adjustments, and, instead require the acquiring entity to record these adjustments in the reporting period they are determined. Additionally, the changes require the acquiring entity to present separately on the face of the income statement or disclose in the notes to the financial statements the portion of the amount recorded in current-period income by line item that would have been recorded in previous reporting periods if the adjustment to the balance sheet amounts had been recognized as of the acquisition date. These changes were to become effective for Alcoa on January 1, 2016; however, early adoption is permitted. As such, Alcoa elected to early adopt these changes upon issuance and applied the new requirements to two acquisitions (Firth Rixson and TITAL – see Note E) that are in the midst of their respective measurement period. At September 30, 2015, Alcoa recognized adjustments to the original balance sheet amounts of these two acquisitions, resulting in the recognition of amounts in current period income that would have been recorded in previous reporting periods had the adjustments to the balance sheet amounts been recognized as of the respective acquisition date. Such amounts recorded in current period income were not material to the Statement of Consolidated Operations for the third quarter and nine months ended September 30, 2015.

## Issued

In January 2015, the FASB issued changes to the presentation of extraordinary items. Such items are defined as transactions or events that are both unusual in nature and infrequent in occurrence, and, currently, are required to be presented separately in an entity's income statement, net of income tax, after income from continuing operations. The changes eliminate the concept of an extraordinary item and, therefore, the presentation of such items will no longer be required. Notwithstanding this change, an entity will still be required to present and disclose a transaction or event that is both unusual in nature and infrequent in occurrence in the notes to the financial statements. These changes become effective for Alcoa on January 1, 2016. Management has determined that the adoption of these changes will not have an impact on the Consolidated Financial Statements.

In February 2015, the FASB issued changes to the analysis that an entity must perform to determine whether it should consolidate certain types of legal entities. These changes (i) modify the evaluation of whether limited partnerships and similar legal entities are variable interest entities or voting interest entities, (ii) eliminate the presumption that a general partner should consolidate a limited partnership, (iii) affect the consolidation analysis of reporting entities that are involved with variable interest entities, particularly those that have fee arrangements and related party relationships, and (iv) provide a scope exception from consolidation guidance for reporting entities with interests in legal entities that are required to comply with or operate in accordance with requirements that are similar to those in Rule 2a-7 of the Investment Company Act of 1940 for registered money market funds. These changes become effective for Alcoa on January 1, 2016. Management is currently evaluating the potential impact of these changes on the Consolidated Financial Statements.

In April 2015, the FASB issued changes to the presentation of debt issuance costs. Currently, such costs are required to be presented as a noncurrent asset in an entity's balance sheet and amortized into interest expense over the term of the related debt instrument. The changes require that debt issuance costs be presented in an entity's balance sheet as a direct deduction from the carrying value of the related debt liability. The amortization of debt issuance costs remains unchanged. These changes become effective for Alcoa on January 1, 2016. In August 2015, the FASB issued an update to these changes based on an announcement of the staff of the U.S. Securities and Exchange Commission. This change provides an exception to the April 2015 FASB changes allowing debt issuance costs related to line-of-credit arrangements to continue to be presented as an asset regardless of whether there are any outstanding borrowings under such arrangement. This additional change also becomes effective for Alcoa on January 1, 2016. Management has determined that the adoption of all of these changes will result in a decrease of approximately \$60 to both Other noncurrent assets and Long-term debt, less amount due within one year on the accompanying Consolidated Balance Sheet.

In July 2015, the FASB issued changes to the subsequent measurement of inventory. Currently, an entity is required to measure its inventory at the lower of cost or market, whereby market can be replacement cost, net realizable value, or net realizable value less an approximately normal profit margin. The changes require that inventory be measured at the lower of cost and net realizable value, thereby eliminating the use of the other two market methodologies. Net realizable value is defined as the estimated selling prices in the ordinary course of business less reasonably predictable costs of completion, disposal, and transportation. These changes do not apply to inventories measured using LIFO (last-in, first-out) or the retail inventory method. Currently, Alcoa applies the net realizable value market option to measure non-LIFO inventories at the lower of cost or market. These changes become effective for Alcoa on January 1, 2017. Management has determined that the adoption of these changes will not have an impact on the Consolidated Financial Statements.

### C. Accumulated Other Comprehensive Loss

The following table details the activity of the four components that comprise Accumulated other comprehensive loss for both Alcoa's shareholders and noncontrolling interests:

	<u>Alcoa</u>		<u>Noncontrolling Interests</u>	
	<u>Third quarter ended</u>		<u>Third quarter ended</u>	
	<u>September 30,</u>	<u>September 30,</u>	<u>September 30,</u>	<u>September 30,</u>
	<u>2015</u>	<u>2014</u>	<u>2015</u>	<u>2014</u>
<b>Pension and other postretirement benefits (M)</b>				
Balance at beginning of period	\$(3,500)	\$(3,441)	\$ (59)	\$ (50)
Other comprehensive income (loss):				
Unrecognized net actuarial loss and prior service cost/benefit	46	96	10	(9)
Tax (expense) benefit	(10)	(33)	(1)	3
Total Other comprehensive income (loss) before reclassifications, net of tax	36	63	9	(6)
Amortization of net actuarial loss and prior service cost/benefit(1)	116	97	—	3
Tax expense(2)	(41)	(34)	—	(1)
Total amount reclassified from Accumulated other comprehensive loss, net of tax(8)	75	63	—	2
Total Other comprehensive income (loss)	111	126	9	(4)
Balance at end of period	\$(3,389)	\$(3,315)	\$ (50)	\$ (54)
<b>Foreign currency translation</b>				
Balance at beginning of period	\$(1,606)	\$ 569	\$ (569)	\$ 36
Other comprehensive loss(3)	(889)	(774)	(299)	(226)
Balance at end of period	\$(2,495)	\$ (205)	\$ (868)	\$ (190)
<b>Available-for-sale securities</b>				
Balance at beginning of period	\$ —	\$ 3	\$ —	\$ —
Other comprehensive (loss) income(4)	(2)	(1)	—	—
Balance at end of period	\$ (2)	\$ 2	\$ —	\$ —
<b>Cash flow hedges (N)</b>				
Balance at beginning of period	\$ 140	\$ (299)	\$ (6)	\$ (8)
Other comprehensive income (loss):				
Net change from periodic revaluations	288	(35)	1	7
Tax (expense) benefit	(79)	11	—	(2)
Total Other comprehensive income (loss) before reclassifications, net of tax	209	(24)	1	5
Net amount reclassified to earnings:				
Aluminum contracts(5)	3	7	—	—
Foreign exchange contracts(5)	2	(1)	—	—
Nickel contracts(6)	1	—	—	—
Sub-total	6	6	—	—
Tax expense(2)	(1)	(1)	—	—
Total amount reclassified from Accumulated other comprehensive income (loss), net of tax(8)	5	5	—	—
Total Other comprehensive income (loss)	214	(19)	1	5
Balance at end of period	\$ 354	\$ (318)	\$ (5)	\$ (3)

	<b>Alcoa</b>		<b>Noncontrolling Interests</b>	
	<b>Nine months ended September 30,</b>		<b>Nine months ended September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
<b>Pension and other postretirement benefits (M)</b>				
Balance at beginning of period	\$(3,601)	\$(3,532)	\$ (64)	\$ (51)
Other comprehensive income (loss):				
Unrecognized net actuarial loss and prior service cost/benefit	(30)	33	13	(9)
Tax benefit (expense)	18	(8)	(1)	3
Total Other comprehensive (loss) income before reclassifications, net of tax	(12)	25	12	(6)
Amortization of net actuarial loss and prior service cost/benefit(1)	345	296	4	5
Tax expense(2)	(121)	(104)	(2)	(2)
Total amount reclassified from Accumulated other comprehensive loss, net of tax(8)	224	192	2	3
Total Other comprehensive income (loss)	212	217	14	(3)
Balance at end of period	<u>\$(3,389)</u>	<u>\$(3,315)</u>	<u>\$ (50)</u>	<u>\$ (54)</u>
<b>Foreign currency translation</b>				
Balance at beginning of period	\$ (846)	\$ 179	\$ (351)	\$ (110)
Other comprehensive loss(3)	(1,649)	(384)	(517)	(80)
Balance at end of period	<u>\$(2,495)</u>	<u>\$ (205)</u>	<u>\$ (868)</u>	<u>\$ (190)</u>
<b>Available-for-sale securities</b>				
Balance at beginning of period	\$ —	\$ 2	\$ —	\$ —
Other comprehensive loss(4)	(2)	—	—	—
Balance at end of period	<u>\$ (2)</u>	<u>\$ 2</u>	<u>\$ —</u>	<u>\$ —</u>
<b>Cash flow hedges (N)</b>				
Balance at beginning of period	\$ (230)	\$ (308)	\$ (2)	\$ (2)
Other comprehensive income (loss):				
Net change from periodic revaluations	792	(31)	(4)	(2)
Tax (expense) benefit	(235)	7	1	1
Total Other comprehensive income (loss) before reclassifications, net of tax	557	(24)	(3)	(1)
Net amount reclassified to earnings:				
Aluminum contracts(5)	26	18	—	—
Energy contracts(6)	4	—	—	—
Foreign exchange contracts(5)	3	(2)	—	—
Interest rate contracts(7)	1	1	—	—
Nickel contracts(6)	1	—	—	—
Sub-total	35	17	—	—
Tax expense(2)	(8)	(3)	—	—
Total amount reclassified from Accumulated other comprehensive loss, net of tax(8)	27	14	—	—
Total Other comprehensive income (loss)	584	(10)	(3)	(1)
Balance at end of period	<u>\$ 354</u>	<u>\$ (318)</u>	<u>\$ (5)</u>	<u>\$ (3)</u>

- (1) These amounts were included in the computation of net periodic benefit cost for pension and other postretirement benefits (see Note M).
- (2) These amounts were included in Provision for income taxes on the accompanying Statement of Consolidated Operations.
- (3) In all periods presented, there were no tax impacts related to rate changes and no amounts were reclassified to earnings.
- (4) In all periods presented, unrealized and realized gains and losses related to these securities were immaterial. Realized gains and losses were included in Other (income) expenses, net on the accompanying Statement of Consolidated Operations.
- (5) These amounts were included in Sales on the accompanying Statement of Consolidated Operations.
- (6) These amounts were included in Cost of goods sold on the accompanying Statement of Consolidated Operations.
- (7) These amounts were included in Interest expense on the accompanying Statement of Consolidated Operations.
- (8) A positive amount indicates a corresponding charge to earnings and a negative amount indicates a corresponding benefit to earnings. These amounts were reflected on the accompanying Statement of Consolidated Operations in the line items indicated in footnotes 1 through 7.

**D. Restructuring and Other Charges** – In the third quarter and nine-month period of 2015, Alcoa recorded Restructuring and other charges of \$66 (\$30 after-tax and noncontrolling interest) and \$460 (\$329 after-tax and noncontrolling interest), respectively.

Restructuring and other charges in the 2015 third quarter included \$42 (\$20 after-tax and noncontrolling interest) for charges related to the decision to curtail the remaining capacity (887,000 metric-tons-per-year) at the refinery in Suriname; \$33 (\$29 after-tax) for layoff costs, including the separation of approximately 370 employees (355 in the Transportation and Construction Solutions segment and a combined 15 in three other segments and Corporate); an \$18 (\$13 after-tax) gain on the sale of land related to one of the rolling mills in Australia that was permanently closed in December 2014; \$11 (\$5 after-tax and noncontrolling interest) for exit costs related to the decision to permanently shut down and demolish a power station (see below); a net charge of \$2 (a net credit of \$9 after-tax and noncontrolling interest) for other miscellaneous items; and \$4 (\$2 after-tax and noncontrolling interest) for the reversal of a few layoff reserves related to prior periods.

In the 2015 nine-month period, Restructuring and other charges included \$190 (\$120 after-tax and noncontrolling interest) for exit costs related to decisions to permanently shut down and demolish a smelter and a power station (see below); \$161 (\$151 after-tax and noncontrolling interest) related to the March 2015 divestiture of a rolling mill in Russia and post-closing adjustments associated with three December 2014 divestitures (see Note E); \$80 (\$43 after-tax and noncontrolling interest) for the separation of approximately 800 employees (680 in the Primary Metals segment and 120 in the Alumina segment), supplier contract-related costs, and other charges associated with the decisions to curtail the remaining capacity at both the refinery in Suriname (1,330,000 metric-tons-per-year) and the São Luís smelter (74,000 metric-tons-per-year); \$62 (\$50 after-tax and noncontrolling interest) for layoff costs, including the separation of approximately 970 employees (410 in the Transportation and Construction Solutions segment, 275 in the Engineered Products and Solutions segment, 165 in the Primary Metals segment, 70 in the Global Rolled Products segment, and 50 in Corporate); the previously mentioned \$18 (\$13 after-tax) gain on a land sale; a net credit of \$3 (\$13 after-tax and noncontrolling interest) for other miscellaneous items; and \$12 (\$9 after-tax and noncontrolling interest) for the reversal of a number of small layoff reserves related to prior periods.

In the second quarter of 2015, management approved the permanent shutdown and demolition of the Poços de Caldas smelter (capacity of 96,000 metric-tons-per-year) in Brazil and the Anglesea power station (includes the closure of a related coal mine) in Australia. The entire capacity at Poços de Caldas had been temporarily idled since May 2014 and the Anglesea power station was shut down at the end of August 2015. Demolition and remediation activities related to the Poços de Caldas smelter and the Anglesea power station will begin in late 2015 and are expected to be completed by the end of 2026 and 2020, respectively.

The decision on the Poços de Caldas smelter was due to management's conclusion that the smelter was no longer competitive as a result of challenging global market conditions for primary aluminum, which led to the initial curtailment, that have not dissipated and higher costs. For the Anglesea power station, the decision was made because a sale process did not result in a sale and there would have been imminent operating costs and financial constraints related to this site in the remainder of 2015 and beyond, including significant costs to source coal from available resources, necessary maintenance costs, and a depressed outlook for forward electricity prices. The Anglesea power station previously supplied approximately 40 percent of the power needs for the Point Henry smelter, which was closed in August 2014.

In the 2015 nine-month period, costs related to the shutdown actions included asset impairments of \$86, representing the write-off of the remaining book value of all related properties, plants, and equipment; \$22 (\$11 in the 2015 third quarter) for the layoff of approximately 90 employees (Primary Metals segment), including \$11 in pension costs (see Note M); and \$82 in other exit costs. Additionally in the 2015 nine-month period, remaining inventories, mostly operating supplies and raw materials, were written down to their net realizable value, resulting in a charge of \$4 (\$2 after-tax and noncontrolling interest), which was recorded in Cost of goods sold on the accompanying Statement of Consolidated Operations. The other exit costs of \$82 represent \$45 in asset retirement obligations and \$29 in environmental remediation, both of which were triggered by the decisions to permanently shut down and demolish the aforementioned structures in Brazil and Australia (includes the rehabilitation of a related coal mine), and \$8 in other related costs, including supplier and customer contract-related costs.

In the third quarter and nine-month period of 2014, Alcoa recorded Restructuring and other charges of \$209 (\$175 after-tax and noncontrolling interest) and \$780 (\$503 after-tax and noncontrolling interest), respectively.

Restructuring and other charges in the 2014 third quarter included \$220 (\$186 after-tax and noncontrolling interest) for exit costs related to decisions to permanently shut down and demolish two smelters and two rolling mills (see below); \$5 (\$4 after-tax) for a gain on the sale of assets related to a previously shutdown location; a charge of \$4 (\$2 after-tax and noncontrolling interest) for other miscellaneous items; and \$10 (\$9 after-tax and noncontrolling interest) for the reversal of a number of layoff reserves related to prior periods, including those associated with a smelter in Italy due to changes in facts and circumstances (see below).

In the 2014 nine-month period, Restructuring and other charges included \$663 (\$426 after-tax and noncontrolling interest) for exit costs related to decisions to permanently shut down and demolish three smelters and two rolling mills (see below); \$67 (\$44 after-tax and noncontrolling interest) for the temporary curtailment of two smelters and a related production slowdown at one refinery (see below); \$33 (\$26 after-tax) for asset impairments related to prior capitalized costs for a modernization project at a smelter in Canada that is no longer being pursued; \$18 (\$11 after-tax and noncontrolling interest) for layoff costs, including the separation of approximately 245 employees (65 in the Engineered Products and Solutions segment, 50 in the Transportation and Construction Solutions segment, 30 in the Global Rolled Products segment, 10 in the Alumina and Primary Metals segments combined, and 90 in Corporate); a charge of \$16 (\$9 after-tax and noncontrolling interest) for other miscellaneous items; and \$17 (\$13 after-tax and noncontrolling interest) for the reversal of a number of layoff reserves related to prior periods, including those associated with a smelter in Italy due to changes in facts and circumstances (see below).

In the 2014 first quarter, management approved the permanent shutdown and demolition of the remaining capacity (84,000 metric-tons-per-year) at the Massena East smelter in New York and the full capacity (190,000 metric-tons-per-year) at the Point Henry smelter in Australia. The capacity at Massena East was fully shut down by the end March 2014 and the Point Henry smelter was fully shut down in August 2014. Demolition and remediation activities related to both the Massena East and Point Henry smelters began in late 2014 and are expected to be completed by the end of 2020 and 2018, respectively.

The decisions on the Massena East and Point Henry smelters were part of a 15-month review of 460,000 metric tons of smelting capacity initiated by management in May 2013 for possible curtailment. Through this review, management determined that the remaining capacity of the Massena East smelter was no longer competitive and the Point Henry smelter had no prospect of becoming financially viable. Management also initiated the temporary curtailment of the remaining capacity (62,000 metric-tons-per-year) at the Poços de Caldas smelter and additional capacity (85,000 metric-tons-per-year) at the São Luís smelter, both in Brazil. These curtailments were completed by the end of May 2014. As a result of these curtailments, 200,000 metric-tons-per-year of production at the Poços de Caldas refinery was reduced by the end of June 2014.

Also in the 2014 first quarter, management approved the permanent shutdown of Alcoa's two rolling mills in Australia, Point Henry and Yennora. This decision was made due to the significant impact of excess can sheet capacity in both Australia and Asia. The two rolling mills had a combined can sheet capacity of 200,000 metric-tons-per-year and were closed at the end of 2014. Demolition and remediation activities related to the two rolling mills began in mid 2015 and are expected to be completed by the end of 2018.

In the 2014 third quarter, management approved the permanent shutdown and demolition of the capacity (150,000 metric-tons-per-year) at the Portovesme smelter in Italy, which had been idle since November 2012. This decision was made because the fundamental reasons that made the Portovesme smelter uncompetitive remain unchanged, including the lack of a viable long-term power solution. Demolition and remediation activities related to the Portovesme smelter will begin in 2016 (delayed due to discussions with the Italian government and other stakeholders) and are expected to be completed by the end of 2020.

In the third quarter and nine-month period of 2014, costs related to the shutdown and curtailment actions included \$60 and \$197, respectively, for the layoff of approximately 1,780 employees (1,200 in the Primary Metals segment, 470 in the Global Rolled Products segment, 80 in the Alumina segment, and 30 in Corporate), including \$18 in pension costs (see Note M); accelerated depreciation of \$40 and \$190, respectively, related to the three facilities in Australia as they continued to operate during 2014 (the smelter operated for one month in the 2014 third quarter); asset impairments of \$74 and \$165, respectively, representing the write-off of the remaining book value of all related properties, plants, and equipment; and \$45 and \$178, respectively, in other exit costs (see below). Additionally in the third quarter and nine-month period of 2014, remaining inventories, mostly operating supplies and raw materials, were written down to their net realizable value, resulting in a charge of \$33 (\$27 after-tax and noncontrolling interest) and \$67 (\$47 after-tax and noncontrolling interest), respectively, which was recorded in Cost of goods sold on the accompanying Statement of Consolidated Operations. The other exit costs in the 2014 third quarter and nine-month period represent \$40 and \$95, respectively, in asset retirement obligations and \$4 and \$42, respectively, in environmental remediation, both of which were triggered by the decisions to permanently shut down and demolish the aforementioned structures in the United States, Australia, and Italy, and \$1 and \$41, respectively, in other related costs, including supplier and customer contract-related costs.

Alcoa does not include Restructuring and other charges in the results of its reportable segments. The pretax impact of allocating such charges to segment results would have been as follows:

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Alumina	\$ 38	\$ 1	\$ 55	\$ 8
Primary Metals	11	193	209	608
Global Rolled Products	(17)	13	119	126
Engineered Products and Solutions	22	—	33	1
Transportation and Construction Solutions	3	—	6	3
Segment total	57	207	422	746
Corporate	9	2	38	34
Total restructuring and other charges	\$ 66	\$ 209	\$ 460	\$ 780

As of September 30, 2015, approximately 1,240 of the 1,860 employees associated with 2015 restructuring programs, approximately 2,500 of the 2,870 employees (previously 2,910 – updated to reflect employees accepting other positions within Alcoa and natural attrition) associated with 2014 restructuring programs, and approximately 1,480 of the 1,530 employees associated with 2013 restructuring programs were separated. Most of the remaining separations for the 2015 restructuring programs and all of the remaining separations for the 2014 and 2013 restructuring programs are expected to be completed by the end of 2015.

In the 2015 third quarter and nine-month period, cash payments of \$19 and \$34, respectively, were made against the layoff reserves related to the 2015 restructuring programs, \$4 and \$60, respectively, were made against the layoff reserves related to the 2014 restructuring programs, and \$1 and \$6, respectively, were made against the layoff reserves related to the 2013 restructuring programs.

Activity and reserve balances for restructuring charges were as follows:

	Layoff costs	Other exit costs	Total
Reserve balances at December 31, 2013	\$ 96	\$ 42	\$ 138
<b>2014:</b>			
Cash payments	(191)	(22)	(213)
Restructuring charges	259	194	453
Other*	(66)	(180)	(246)
Reserve balances at December 31, 2014	98	34	132
<b>2015:</b>			
Cash payments	(100)	(9)	(109)
Restructuring charges	111	89	200
Other*	(52)	(90)	(142)
Reserve balances at September 30, 2015	\$ 57	\$ 24	\$ 81

\* Other includes reversals of previously recorded restructuring charges and the effects of foreign currency translation. In the 2015 nine-month period, Other for layoff costs also included a reclassification of \$28 in pension and other postretirement benefits costs, as this obligation was included in Alcoa's separate liability for pension and other postretirement benefit obligations (see Note M). Additionally in the 2015 nine-month period, Other for other exit costs also included a reclassification of the following restructuring charges: \$45 in asset retirement and \$29 in environmental obligations, as these liabilities were included in Alcoa's separate reserves for asset retirement obligations and environmental remediation (see Note G). In 2014, Other for layoff costs also included a reclassification of \$26 in pension costs, as this obligation was included in Alcoa's separate liability for pension obligations. Additionally in 2014, Other for other exit costs also included a reclassification of the following restructuring charges: \$95 in asset retirement and \$47 in environmental obligations, as these liabilities were included in Alcoa's separate reserves for asset retirement obligations and environmental remediation.

The remaining reserves are expected to be paid in cash during the remainder of 2015, with the exception of approximately \$50 to \$55, which is expected to be paid over the next several years for special separation benefit payments, ongoing site remediation work, and lease termination costs.

**E. Acquisitions and Divestitures** – In November 2014, Alcoa completed the acquisition of an aerospace jet engine components company, Firth Rixson, for \$2,995 plus \$130 in contingent consideration. The preliminary allocation of the purchase price at that time resulted in total assets of \$3,470, including \$1,898 in goodwill and \$398 in intangibles, and \$475 in total liabilities, including the \$130 of contingent

consideration. In the 2015 nine-month period, Alcoa updated the estimated beginning balances of certain assets acquired, including a decrease to properties, plants, and equipment of \$166, an increase to intangible assets of \$393, and a decrease to goodwill of \$94. These changes were based, in part, on management's review of information from a completed third-party valuation. The intangible assets of \$791 consist primarily of customer relationships and contracts, backlog, qualifications, and technology. These amounts, which will be finalized in the fourth quarter of 2015, are subject to change upon further review by management.

In March 2015, Alcoa completed the acquisition of an aerospace structural castings company, TITAL, for \$204 (€188) in cash (an additional \$1 (€1) was paid in the 2015 third quarter to settle working capital in accordance with the purchase agreement). This transaction is no longer subject to post-closing adjustments. TITAL, a privately held company with approximately 650 employees based in Germany, produces aluminum and titanium investment casting products for the aerospace and defense end markets. The purpose of this acquisition is to capture increasing demand for advanced jet engine components made of titanium, establish titanium-casting capabilities in Europe, and expand existing aluminum casting capacity. The assets, including the associated goodwill, and liabilities of this business were included within Alcoa's Engineered Products and Solutions segment since the date of acquisition. Based on the preliminary allocation of the purchase price, goodwill of \$123 was recorded for this transaction, none of which is estimated to be deductible for income tax purposes. The final allocation of the purchase price will be based on management's best estimates, including a valuation of the assets acquired and liabilities assumed, which may result in the identification of other intangible assets, and other studies related to potential environmental and contingent liabilities.

Also in March 2015, Alcoa signed a definitive agreement to acquire RTI International Metals, Inc. (RTI), a U.S. company that was publicly traded on the New York Stock Exchange under the ticker symbol "RTI." On July 23, 2015, after satisfying all customary closing conditions and receiving the required regulatory and RTI shareholder approvals, Alcoa completed the acquisition of RTI. Alcoa purchased all outstanding shares of RTI common stock in a stock-for-stock transaction valued at \$870 (based on the \$9.96 per share July 23, 2015 closing price of Alcoa's common stock). Each issued and outstanding share of RTI common stock prior to the completion of the transaction was converted into the right to receive 2.8315 shares of Alcoa common stock. In total, Alcoa issued 87,397,414 shares of its common stock to consummate this transaction, which was not reflected in the accompanying Statement of Consolidated Cash Flows as it represents a noncash financing activity. The exchange ratio was the quotient of a \$41 per RTI common share acquisition price and the \$14.48 per share March 6, 2015 closing price of Alcoa's common stock. In addition to the transaction price, Alcoa also paid \$25 (\$19 after-tax) in professional fees and costs related to this acquisition. This amount was recorded in Selling, general administrative, and other expenses on the accompanying Statement of Consolidated Operations.

RTI is a global supplier of titanium and specialty metal products and services for the commercial aerospace, defense, energy, and medical device end markets. The purpose of this acquisition is to expand Alcoa's range of titanium offerings and add advanced technologies and materials, primarily related to the aerospace end market. In 2014, RTI generated net sales of \$794 and had approximately 2,600 employees. The operating results and assets and liabilities of RTI were included within Alcoa's Engineered Products and Solutions segment since the date of acquisition. Third-party sales and after-tax operating income (Alcoa's primary segment performance measure – see Note I) of RTI from the acquisition date through September 30, 2015 were \$127 and \$(7), respectively.

The following table represents the preliminary allocation of the purchase price by major asset acquired and liability assumed, as well as the amount of goodwill recognized:

<b>Assets:</b>	
Cash and cash equivalents	\$ 302
Receivables from customers	103
Inventories	538
Other current assets	68
Properties, plants, and equipment, net	436
Goodwill	209
Other noncurrent assets	91
Total assets	<u>\$1,747</u>
<b>Liabilities:</b>	
Accounts payable	\$ 90
Long-term debt due within one year	115
Other current liabilities	93
Long-term debt	440
Other noncurrent liabilities	139
Total liabilities	<u>\$ 877</u>



The amounts in the table above are subject to change upon completion of a third-party valuation of the assets acquired and liabilities assumed. This valuation is expected to be completed in 2016.

As reflected in the table above, Alcoa recognized goodwill of \$209, which represents the earnings growth potential of RTI, Alcoa's ability to expand its titanium capabilities in the aerospace market, and expected synergies from combining the operations of the two companies. This goodwill will be allocated to a new Alcoa reporting unit associated with the Engineered Products and Solutions segment, Alcoa Titanium and Engineered Products, which consists solely of the acquired RTI business. None of this goodwill is deductible for income tax purposes.

The other noncurrent assets in the table above include an estimate for intangible assets of \$73, most of which were included in Alcoa's other intangibles class. The specific identification and weighted-average amortization period for these intangible assets is dependent on the final valuation.

As part of this acquisition, Alcoa also assumed the obligation to repay two tranches of convertible debt; one tranche is due on December 1, 2015 and the other tranche is due in 2019. Alcoa may elect to settle these convertible notes either in cash or shares of common stock (up to 37,009,898 shares combined).

In the 2015 nine-month period, Alcoa completed the divestiture of an operation in Russia (see below) and had post-closing adjustments, as provided for in the respective purchase agreements, related to three divestitures completed in December 2014. The divestiture and post-closing adjustments combined resulted in net cash received of \$30 and a net loss of \$161 (\$151 after-tax and noncontrolling interest), which was recorded in Restructuring and other charges (see Note D) on the accompanying Statement of Consolidated Operations. One of these four divestitures remains subject to certain post-closing adjustments as defined in the respective purchase agreement.

In March 2015, Alcoa completed the sale of a rolling mill located in Belaya Kalitva, Russia to a wholly-owned subsidiary of Stupino Titanium Company. While owned by Alcoa, the operating results and assets and liabilities of the rolling mill were included in the Global Rolled Products segment. The rolling mill generated sales of approximately \$130 in 2014 and, at the time of divestiture, had approximately 1,870 employees.

## F. Inventories

	September 30, 2015	December 31, 2014
Finished goods	\$ 850	\$ 768
Work-in-process	1,233	1,035
Bauxite and alumina	493	578
Purchased raw materials	790	508
Operating supplies	193	193
	<u>\$ 3,559</u>	<u>\$ 3,082</u>

At September 30, 2015 and December 31, 2014, the total amount of inventories valued on a LIFO basis was \$1,507 and \$1,514, respectively. If valued on an average-cost basis, total inventories would have been \$625 and \$767 higher at September 30, 2015 and December 31, 2014, respectively.

## G. Contingencies and Commitments

### Contingencies

#### Litigation

On June 5, 2015, Alcoa World Alumina LLC ("AWA") and St. Croix Alumina, L.L.C. ("SCA") filed a complaint in Delaware Chancery Court for a declaratory judgment and injunctive relief to resolve a dispute between Alcoa and Glencore Ltd. ("Glencore") with respect to claimed obligations under a 1995 asset purchase agreement between Alcoa and Glencore. The dispute arose from

Glencore's demand that Alcoa indemnify it for liabilities it may have to pay to Lockheed Martin ("Lockheed") related to the St. Croix alumina refinery. Lockheed had earlier filed suit against Glencore in federal court in New York seeking indemnity for liabilities it had incurred and would incur to the U.S. Virgin Islands to remediate certain properties at the refinery property and claimed that Glencore was required by an earlier, 1989 purchase agreement to indemnify it. Glencore had demanded that Alcoa indemnify and defend it in the Lockheed case and threatened to claim over against Alcoa in the New York action despite exclusive jurisdiction for resolution of disputes under the 1995 purchase agreement being in Delaware. After Glencore conceded that it was not seeking to add Alcoa to the New York action, AWA and SCA dismissed their complaint in the Chancery Court case and on August 6, 2015 filed a complaint for declaratory judgment in Delaware Superior Court. AWA and SCA filed a motion for judgment on the pleadings on September 16, 2015. If AWA's and SCA's motion is granted, it will be determined that Alcoa is not liable to Glencore for any Glencore liabilities arising out of its contractual indemnity of Lockheed in the 1989 agreement. Glencore answered AWA's and SCA's complaint and asserted counterclaims on August 27, 2015, and on October 2, 2015 filed its own motion for judgment on the pleadings. Should Glencore's motion for judgment be upheld, Alcoa could be required to defend against Lockheed's claims in the action that Lockheed brought against Glencore, as to which Glencore seeks indemnification from Alcoa, estimated to be up to \$76, which represents the high end of the range of reasonably possible loss associated with this matter of \$0 to \$76. Further briefing on the motions will continue through October 23, 2015. At this time, the Company is unable to reasonably predict an outcome for this matter.

Before 2002, Alcoa purchased power in Italy in the regulated energy market and received a drawback of a portion of the price of power under a special tariff in an amount calculated in accordance with a published resolution of the Italian Energy Authority, Energy Authority Resolution n. 204/1999 ("204/1999"). In 2001, the Energy Authority published another resolution, which clarified that the drawback would be calculated in the same manner, and in the same amount, in either the regulated or unregulated market. At the beginning of 2002, Alcoa left the regulated energy market to purchase energy in the unregulated market. Subsequently, in 2004, the Energy Authority introduced regulation no. 148/2004 which set forth a different method for calculating the special tariff that would result in a different drawback for the regulated and unregulated markets. Alcoa challenged the new regulation in the Administrative Court of Milan and received a favorable judgment in 2006. Following this ruling, Alcoa continued to receive the power price drawback in accordance with the original calculation method, through 2009, when the European Commission declared all such special tariffs to be impermissible "state aid." In 2010, the Energy Authority appealed the 2006 ruling to the Consiglio di Stato (final court of appeal). On December 2, 2011, the Consiglio di Stato ruled in favor of the Energy Authority and against Alcoa, thus presenting the opportunity for the energy regulators to seek reimbursement from Alcoa of an amount equal to the difference between the actual drawback amounts received over the relevant time period, and the drawback as it would have been calculated in accordance with regulation 148/2004. On February 23, 2012, Alcoa filed its appeal of the decision of the Consiglio di Stato (this appeal was subsequently withdrawn in March 2013). On March 26, 2012, Alcoa received a letter from the agency (Cassa Conguaglio per il Settore Elettrico (CCSE)) responsible for making and collecting payments on behalf of the Energy Authority demanding payment in the amount of approximately \$110 (€85), including interest. By letter dated April 5, 2012, Alcoa informed CCSE that it disputes the payment demand of CCSE since (i) CCSE was not authorized by the Consiglio di Stato decisions to seek payment of any amount, (ii) the decision of the Consiglio di Stato has been appealed (see above), and (iii) in any event, no interest should be payable. On April 29, 2012, Law No. 44 of 2012 ("44/2012") came into effect, changing the method to calculate the drawback. On February 21, 2013, Alcoa received a revised request letter from CCSE demanding Alcoa's subsidiary, Alcoa Trasformazioni S.r.l., make a payment in the amount of \$97 (€76), including interest, which reflects a revised calculation methodology by CCSE and represents the high end of the range of reasonably possible loss associated with this matter of \$0 to \$97 (€76). Alcoa has rejected that demand and has formally challenged it through an appeal before the Administrative Court on April 5, 2013. The Administrative Court scheduled a hearing for December 19, 2013, which was subsequently postponed until April 17, 2014, and further postponed until June 19, 2014. On this date, the Administrative Court listened to Alcoa's oral argument, and on September 2, 2014, rendered its decision. The Administrative Court declared the payment request of CCSE and the Energy Authority to Alcoa to be unsubstantiated based on the 148/2004 resolution with respect to the January 19, 2007 through November 19, 2009 timeframe. On December 18, 2014, the CCSE and the Energy Authority appealed the Administrative Court's September 2, 2014 decision; however, a date for the hearing has not been scheduled. At this time, the Company is unable to reasonably predict an outcome for this matter.

#### European Commission Matters

In July 2006, the European Commission (EC) announced that it had opened an investigation to establish whether an extension of the regulated electricity tariff granted by Italy to some energy-intensive industries complied with European Union (EU) state aid rules. The Italian power tariff extended the tariff that was in force until December 31, 2005 through November 19, 2009 (Alcoa had been incurring higher power costs at its smelters in Italy subsequent to the tariff end date through the end of 2012). The extension was originally through 2010, but the date was changed by legislation adopted by the Italian Parliament effective on August 15, 2009. Prior to expiration of the tariff in 2005, Alcoa had been operating in Italy for more than 10 years under a power supply structure approved by the EC in 1996. That measure provided a competitive power supply to the primary aluminum industry and was not considered state aid from the Italian Government. The EC's announcement expressed concerns about whether Italy's extension of the tariff beyond 2005 was compatible with EU legislation and potentially distorted competition in the European market of primary aluminum, where energy is an important part of the production costs.

On November 19, 2009, the EC announced a decision in this matter stating that the extension of the tariff by Italy constituted unlawful state aid, in part, and, therefore, the Italian Government is to recover a portion of the benefit Alcoa received since January 2006 (including interest). The amount of this recovery was to be based on a calculation prepared by the Italian Government (see below). In late 2009, after discussions with legal counsel and reviewing the bases on which the EC decided, including the different considerations cited in the EC decision regarding Alcoa's two smelters in Italy, Alcoa recorded a charge of \$250 (€173), which included \$20 (€14) to write off a receivable from the Italian Government for amounts due under the now expired tariff structure and \$230 (€159) to establish a reserve. On April 19, 2010, Alcoa filed an appeal of this decision with the General Court of the EU (see below). Prior to 2012, Alcoa was involved in other legal proceedings related to this matter that separately sought the annulment of the EC's July 2006 decision to open an investigation alleging that such decision did not follow the applicable procedural rules and requested injunctive relief to suspend the effectiveness of the EC's November 19, 2009 decision. However, the decisions by the General Court, and subsequent appeals to the European Court of Justice, resulted in the denial of these remedies.

In June 2012, Alcoa received formal notification from the Italian Government with a calculated recovery amount of \$375 (€303); this amount was reduced by \$65 (€53) for amounts owed by the Italian Government to Alcoa, resulting in a net payment request of \$310 (€250). In a notice published in the Official Journal of the European Union on September 22, 2012, the EC announced that it had filed an action against the Italian Government on July 18, 2012 to compel it to collect the recovery amount (on October 17, 2013, the European Court of Justice ordered Italy to so collect). On September 27, 2012, Alcoa received a request for payment in full of the \$310 (€250) by October 31, 2012. Following discussions with the Italian Government regarding the timing of such payment, Alcoa paid the requested amount in five quarterly installments of \$69 (€50) beginning in October 2012 through December 2013. Notwithstanding the payments made, Alcoa's estimate of the most probable loss of the ultimate outcome of this matter and the low end of the range of reasonably possible loss, which is \$178 (€159) to \$340 (€303), remains the \$178 (€159) recorded in 2009 (the U.S. dollar amount reflects the effects of foreign currency movements since 2009). Alcoa no longer has a reserve for this matter; instead, Alcoa has a noncurrent asset reflecting the excess of the total of the five payments made to the Italian Government over the reserve recorded in 2009. At September 30, 2015, the noncurrent asset was \$103 (€91) (this does not include the \$59 (€53) for amounts owed by the Italian Government to Alcoa mentioned above).

On October 16, 2014, Alcoa received notice from the General Court of the EU that its April 19, 2010 appeal of the EC's November 19, 2009 decision was denied. On December 27, 2014, Alcoa filed an appeal of the General Court's October 16, 2014 ruling to the European Court of Justice. Following submission of the EC's response to the appeal, on June 10, 2015, Alcoa filed a request for an oral hearing before the European Court of Justice. No decision on that request has been received. A final decision by the European Court of Justice in this matter could take a year or more.

As a result of the EC's November 19, 2009 decision, management had contemplated ceasing operations at its Italian smelters due to uneconomical power costs. In February 2010, management agreed to continue to operate its smelters in Italy for up to six months while a long-term solution to address increased power costs could be negotiated. Over a portion of this time, a long-term solution was not able to be reached related to the Fusina smelter, therefore, in May 2010, Alcoa and the Italian Government agreed to a temporary idling of the Fusina smelter. As of September 30, 2010, the Fusina smelter was fully curtailed (44,000 metric-tons-per-year). For the Portovesme smelter, Alcoa executed a new power agreement effective September 1, 2010 through December 31, 2012, replacing the short-term, market-based power contract that was in effect since early 2010. This new agreement along with interruptibility rights (i.e. compensation for power interruptions when grids are overloaded) granted to Alcoa for the Portovesme smelter provided additional time to negotiate a long-term solution (the EC had previously determined that the interruptibility rights were not considered state aid).

At the end of 2011, as part of a restructuring of Alcoa's global smelting system, management decided to curtail operations at the Portovesme smelter during 2012 due to the uncertain prospects for viable, long-term power, along with rising raw materials costs and falling global aluminum prices (mid-2011 to late 2011). As of December 31, 2012, the Portovesme smelter was fully curtailed (150,000 metric-tons-per-year).

In June 2013 and August 2014, Alcoa decided to permanently shut down and demolish the Fusina and Portovesme smelters, respectively, due to persistent uneconomical conditions.

## Environmental Matters

Alcoa participates in environmental assessments and cleanups at more than 100 locations. These include owned or operating facilities and adjoining properties, previously owned or operating facilities and adjoining properties, and waste sites, including Superfund (Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)) sites.

A liability is recorded for environmental remediation when a cleanup program becomes probable and the costs can be reasonably estimated. As assessments and cleanups proceed, the liability is adjusted based on progress made in determining the extent of remedial actions and related costs. The liability can change substantially due to factors such as the nature and extent of contamination, changes in remedial requirements, and technological changes, among others.

Alcoa's remediation reserve balance was \$558 and \$543 at September 30, 2015 and December 31, 2014 (of which \$63 and \$70 was classified as a current liability), respectively, and reflects the most probable costs to remediate identified environmental conditions for which costs can be reasonably estimated.

In the 2015 third quarter and nine-month period, the remediation reserve was increased by \$3 and \$56, respectively. The change in the third quarter of 2015 was due to a charge of \$1 related to the Mosjøen location (see below) and a net charge of \$2 associated with a number of other sites. In the 2015 nine-month period, the change was due to a charge of \$29 related to the planned demolition of the Poços de Caldas smelter and the Anglesea power station (see Note D), a charge of \$12 related to the Mosjøen location (see below), a charge of \$7 related to the Portovesme location (see below), and a net charge of \$8 associated with a number of other sites. The changes to the remediation reserve in the 2015 third quarter and nine-month period, except for the charge of \$29, were recorded in Cost of goods sold on the accompanying Statement of Consolidated Operations.

Payments related to remediation expenses applied against the reserve were \$14 and \$30 in the third quarter and nine-month period, respectively. These amounts include expenditures currently mandated, as well as those not required by any regulatory authority or third party. In the 2015 third quarter and nine-month period, the change in the reserve also reflects a decrease of \$10 and \$16, respectively, due to the effects of foreign currency translation and an increase of \$5 related to the acquisition of Firth Rixson (see Note E).

Included in annual operating expenses are the recurring costs of managing hazardous substances and environmental programs. These costs are estimated to be approximately 2% of cost of goods sold.

The following discussion provides details regarding the current status of certain significant reserves related to current or former Alcoa sites.

**Massena West, NY**—Alcoa has an ongoing remediation project related to the Grasse River, which is adjacent to Alcoa's Massena plant site. Many years ago, it was determined that sediments and fish in the river contain varying levels of polychlorinated biphenyls (PCBs). The project, which was selected by the U.S. Environmental Protection Agency (EPA) in a Record of Decision (ROD) issued in April 2013, is aimed at capping PCB contaminated sediments with concentration in excess of one part per million in the main channel of the river and dredging PCB contaminated sediments in the near-shore areas where total PCBs exceed one part per million. At September 30, 2015 and December 31, 2014, the reserve balance associated with this matter was \$235 and \$239, respectively. Alcoa is in the planning and design phase, which is expected to take approximately three years from mid-2013, followed by the actual remediation fieldwork that is expected to take approximately four years. The majority of the project funding is expected to be spent between 2016 and 2020.

**Sherwin, TX**—In connection with the sale of the Sherwin alumina refinery, which was required to be divested as part of the Reynolds merger in 2000, Alcoa agreed to retain responsibility for the remediation of the then existing environmental conditions, as well as a pro rata share of the final closure of the active bauxite residue waste disposal areas (known as the Copano facility). Alcoa's share of the closure costs is proportional to the total period of operation of the active waste disposal areas. At September 30, 2015 and December 31, 2014, the reserve balance associated with Sherwin was \$31 and \$32, respectively. Approximately half of the project funding is expected to be spent through 2019. The remainder is not expected to be spent in the foreseeable future as it is dependent upon the operating life of the active waste disposal areas.

**East St. Louis, IL**—Alcoa has an ongoing remediation project related to an area used for the disposal of bauxite residue from former alumina refining operations. The project, which was selected by the EPA in a ROD issued in July 2012, is aimed at implementing a soil cover over the affected area. On November 1, 2013, the U.S. Department of Justice lodged a consent decree on behalf of the EPA for Alcoa to conduct the work outlined in the ROD. This consent decree was entered as final in February 2014 by the U.S. Department of Justice. As a result, Alcoa began construction in March 2014; this project is expected to be completed by the end of 2015 (Alcoa has a second project in East St. Louis that is separate from the matter presented herein on which Alcoa is expecting an EPA decision in 2016—any resulting liability is not expected to be material). At September 30, 2015 and December 31, 2014, the reserve balance associated with this matter was \$11 and \$15, respectively.

**Fusina and Portovesme, Italy**—In 1996, Alcoa acquired the Fusina smelter and rolling operations and the Portovesme smelter, both of which are owned by Alcoa's subsidiary Alcoa Trasformazioni S.r.l. ("Trasformazioni"), from Alumix, an entity owned by the Italian Government. At the time of the acquisition, Alumix indemnified Alcoa for pre-existing environmental contamination at the sites. In 2004, the Italian Ministry of Environment and Protection of Land and Sea (MOE) issued orders to Trasformazioni and Alumix for the development of a clean-up plan related to soil contamination in excess of allowable limits under legislative decree and to institute emergency actions and pay natural resource damages. Trasformazioni appealed the orders and filed suit against Alumix, among others, seeking indemnification for these liabilities under the provisions of the acquisition agreement. In 2009, Ligestra S.r.l. ("Ligestra"), Alumix's successor, and Trasformazioni agreed to a stay of the court proceedings while investigations were conducted and negotiations advanced towards a possible settlement.

In December 2009, Trasformazioni and Ligestra reached an initial agreement for settlement of the liabilities related to Fusina while negotiations continued related to Portovesme (see below). The agreement outlined an allocation of payments to the MOE for emergency action and natural resource damages and the scope and costs for a proposed soil remediation project, which was formally presented to the MOE in mid-2010. The agreement was contingent upon final acceptance of the remediation project by the MOE. As a result of entering into this agreement, Alcoa increased the reserve by \$12 in 2009 for Fusina. Based on comments received from the MOE and local and regional environmental authorities, Trasformazioni submitted a revised remediation plan in the first half of 2012; however, such revisions did not require any change to the existing reserve. In October 2013, the MOE approved the project submitted by Alcoa, resulting in no adjustment to the reserve.

In January 2014, in anticipation of Alcoa reaching a final administrative agreement with the MOE, Alcoa and Ligestra entered into a final agreement related to Fusina for allocation of payments to the MOE for emergency action and natural resource damages and the costs for the approved soil remediation project. The agreement resulted in Ligestra assuming 50% to 80% of all payments and remediation costs. On February 27, 2014, Alcoa and the MOE reached a final administrative agreement for conduct of work. This agreement includes both a soil and groundwater remediation project estimated to cost \$33 (€24) and requires payments of \$25 (€18) to the MOE for emergency action and natural resource damages. The remediation projects are slated to begin as soon as Alcoa receives final approval from the Ministry of Infrastructure. Based on the final agreement with Ligestra, Alcoa's share of all costs and payments is \$17 (€12), of which \$9 (€6) related to the damages will be paid annually over a 10-year period, which began in April 2014, and was previously fully reserved.

Separately, in 2009, due to additional information derived from the site investigations conducted at Portovesme, Alcoa increased the reserve by \$3. In November 2011, Trasformazioni and Ligestra reached an agreement for settlement of the liabilities related to Portovesme, similar to the one for Fusina. A proposed soil remediation project for Portovesme was formally presented to the MOE in June 2012. Neither the agreement with Ligestra nor the proposal to the MOE resulted in a change to the reserve for Portovesme. In November 2013, the MOE rejected the proposed soil remediation project and requested a revised project be submitted. In May 2014, Trasformazioni and Ligestra submitted a revised soil remediation project that addressed certain stakeholders' concerns. Alcoa increased the reserve by \$3 in 2014 to reflect the estimated higher costs associated with the revised soil remediation project, as well as current operating and maintenance costs of the Portovesme site.

In October 2014, the MOE required a further revised project be submitted to reflect the removal of a larger volume of contaminated soil than what had been proposed, as well as design changes for the cap related to the remaining contaminated soil left in place and the expansion of an emergency containment groundwater pump and treatment system that was previously installed. Trasformazioni and Ligestra submitted the further revised soil remediation project in February 2015. As a result, Alcoa increased the reserve by \$7 in the 2015 first quarter to reflect the increase in the estimated costs of the project. The ultimate outcome of this matter may result in a change to the existing reserve for Portovesme.

**Baie Comeau, Quebec, Canada**—In August 2012, Alcoa presented an analysis of remediation alternatives to the Quebec Ministry of Sustainable Development, Environment, Wildlife and Parks (MDDEP), in response to a previous request, related to known PCBs and polycyclic aromatic hydrocarbons (PAHs) contained in sediments of the Anse du Moulin bay. As such, Alcoa increased the reserve for Baie Comeau by \$25 in 2012 to reflect the estimated cost of Alcoa's recommended alternative, consisting of both dredging and capping of the contaminated sediments. In July 2013, Alcoa submitted the Environmental Impact Assessment for the project to the MDDEP. The MDDEP notified Alcoa that the project as it was submitted was approved and a final ministerial decree was issued in July 2015. As a result, no further adjustment to the reserve was required in the 2015 third quarter. The decree provides final approval for the project and allows Alcoa to start work on the final project design, which is expected to be completed in 2016 with construction on the project expected to begin in 2017. Completion of the final project design and bidding of the project may result in additional liability in a future period.

**Mosjøen, Norway**—In September 2012, Alcoa presented an analysis of remediation alternatives to the Norwegian Environmental Agency (NEA) (formerly the Norwegian Climate and Pollution Agency, or "Klif"), in response to a previous request, related to known PAHs in the sediments located in the harbor and extending out into the fjord. As such, Alcoa increased the reserve for Mosjøen by \$20 in 2012 to reflect the estimated cost of the baseline alternative for dredging of the contaminated sediments. A proposed project reflecting this alternative was formally presented to the NEA in June 2014, and was resubmitted in the fourth quarter of 2014 to reflect changes by the NEA. The revised proposal did not result in a change to the reserve for Mosjøen.

In the second quarter of 2015, the NEA notified Alcoa that the revised project was approved and required submission of the final project design before issuing a final order. Alcoa completed and submitted the final project design, which identified a need to stabilize the related wharf structure to allow for the sediment dredging in the harbor. As a result, Alcoa increased the reserve for Mosjøen by \$11 in the 2015 second quarter to reflect the estimated cost of the wharf stabilization. In June 2015, the NEA issued a final order approving the project as well as the final project design. In the 2015 third quarter, Alcoa increased the reserve by \$1 to reflect the potential need (based on prior experience with similar projects) to perform additional dredging if the results of sampling, which is required by the order, don't achieve the required cleanup levels. Project construction is expected to begin in late 2015 and be completed by the end of 2017.

#### Other

In September 2010, following a corporate income tax audit covering the 2003 through 2005 tax years, an assessment was received as a result of Spain's tax authorities disallowing certain interest deductions claimed by a Spanish consolidated tax group owned by the Company. An appeal of this assessment in Spain's Central Tax Administrative Court by the Company was denied in October 2013. In December 2013, the Company filed an appeal of the assessment in Spain's National Court.

Additionally, following a corporate income tax audit of the same Spanish tax group for the 2006 through 2009 tax years, Spain's tax authorities issued an assessment in July 2013 similarly disallowing certain interest deductions. In August 2013, the Company filed an appeal of this second assessment in Spain's Central Tax Administrative Court, which was denied in January 2015. The Company filed an appeal of this second assessment in Spain's National Court in March 2015.

The combined assessments (remeasured for a tax rate change enacted in November 2014) total \$268 (€239), including interest. The Company believes it has meritorious arguments to support its tax position and intends to vigorously litigate the assessments through Spain's court system. However, in the event the Company is unsuccessful, a portion of the assessments may be offset with existing net operating losses available to the Spanish consolidated tax group. Additionally, it is possible that the Company may receive similar assessments for tax years subsequent to 2009. At this time, the Company is unable to reasonably predict an outcome for this matter.

In March 2013, Alcoa's subsidiary, Alcoa World Alumina Brasil (AWAB), was notified by the Brazilian Federal Revenue Office (RFB) that approximately \$110 (R\$220) of value added tax credits previously claimed are being disallowed and a penalty of 50% assessed. Of this amount, AWAB received \$41 (R\$82) in cash in May 2012. The value added tax credits were claimed by AWAB for both fixed assets and export sales related to the Juruti bauxite mine and São Luís refinery expansion. The RFB has disallowed credits they allege belong to the consortium in which AWAB owns an interest and should not have been claimed by AWAB. Credits have also been disallowed as a result of challenges to apportionment methods used, questions about the use of the credits, and an alleged lack of documented proof. AWAB presented defense of its claim to the RFB on April 8, 2013. If AWAB is successful in this administrative process, the RFB would have no further recourse. If unsuccessful in this process, AWAB has the option to litigate at a judicial level. Separately from AWAB's administrative appeal, in June 2015, new tax law was enacted repealing the provisions in the tax code that were the basis for the RFB assessing a 50% penalty in this matter. As such, the estimated range of reasonably possible loss is \$0 to \$25 (R\$103), whereby the maximum end of the range represents the portion of the disallowed credits applicable to the export sales and excludes the 50% penalty. Additionally, the estimated range of disallowed credits related to AWAB's fixed assets is \$0 to \$28 (R\$117), which would increase the net carrying value of AWAB's fixed assets if ultimately disallowed. It is management's opinion that the allegations have no basis; however, at this time, management is unable to reasonably predict an outcome for this matter.

Between 2000 and 2002, Alcoa Alumínio (Alumínio) sold approximately 2,000 metric tons of metal per month from its Poços de Caldas facility, located in the State of Minas Gerais (the “State”), to Alfio, a customer also located in the State. Sales in the State were exempted from value-added tax (VAT) requirements. Alfio subsequently sold metal to customers outside of the State, but did not pay the required VAT on those transactions. In July 2002, Alumínio received an assessment from State auditors on the theory that Alumínio should be jointly and severally liable with Alfio for the unpaid VAT. In June 2003, the administrative tribunal found Alumínio liable, and Alumínio filed a judicial case in the State in February 2004 contesting the finding. In May 2005, the Court of First Instance found Alumínio solely liable, and a panel of a State appeals court confirmed this finding in April 2006. Alumínio filed a special appeal to the Superior Tribunal of Justice (STJ) in Brasilia (the federal capital of Brazil) later in 2006. In 2011, the STJ (through one of its judges) reversed the judgment of the lower courts, finding that Alumínio should neither be solely nor jointly and severally liable with Alfio for the VAT, which ruling was then appealed by the State. In August 2012, the STJ agreed to have the case reheard before a five-judge panel. A decision from this panel is pending, but additional appeals are likely. At September 30, 2015, the assessment totaled \$32 (R\$133), including penalties and interest. While the Company believes it has meritorious defenses, the Company is unable to reasonably predict an outcome.

In addition to the matters discussed above, various other lawsuits, claims, and proceedings have been or may be instituted or asserted against Alcoa, including those pertaining to environmental, product liability, safety and health, and tax matters. While the amounts claimed in these other matters may be substantial, the ultimate liability cannot now be determined because of the considerable uncertainties that exist. Therefore, it is possible that the Company’s liquidity or results of operations in a particular period could be materially affected by one or more of these other matters. However, based on facts currently available, management believes that the disposition of these other matters that are pending or asserted will not have a material adverse effect, individually or in the aggregate, on the financial position of the Company.

## **Commitments**

### **Investments**

Alcoa has an investment in a joint venture for the development, construction, ownership, and operation of an integrated aluminum complex (bauxite mine, alumina refinery, aluminum smelter, and rolling mill) in Saudi Arabia. The joint venture is owned 74.9% by the Saudi Arabian Mining Company (known as “Ma’aden”) and 25.1% by Alcoa and consists of three separate companies as follows: one each for the mine and refinery, the smelter, and the rolling mill. Alcoa accounts for its investment in the joint venture under the equity method. Capital investment in the project is expected to total approximately \$10,800 (SAR 40.5 billion) and has been funded through a combination of equity contributions by the joint venture partners and project financing by the joint venture, which has been guaranteed by both partners (see below). Both the equity contributions and the guarantees of the project financing are based on the joint venture’s partners’ ownership interests. Originally, it was estimated that Alcoa’s total equity investment in the joint venture would be approximately \$1,100, of which Alcoa has contributed \$967, including \$6 and \$15 in the 2015 third quarter and nine-month period, respectively. Based on changes to both the project’s capital investment and equity and debt structure from the initial plans, the estimated \$1,100 equity contribution may be reduced. As of September 30, 2015 and December 31, 2014, the carrying value of Alcoa’s investment in this project was \$935 and \$983, respectively.

The smelting and rolling mill companies have project financing totaling \$4,374 (reflects principal repayments made through September 30, 2015), of which \$1,098 represents Alcoa’s share (the equivalent of Alcoa’s 25.1% interest in the smelting and rolling mill companies). In conjunction with the financings, Alcoa issued guarantees on behalf of the smelting and rolling mill companies to the lenders in the event that such companies default on their debt service requirements through 2017 and 2020 for the smelting company and 2018 and 2021 for the rolling mill company (Ma’aden issued similar guarantees for its 74.9% interest). Alcoa’s guarantees for the smelting and rolling mill companies cover total debt service requirements of \$176 in principal and up to a maximum of approximately \$50 in interest per year (based on projected interest rates). At September 30, 2015 and December 31, 2014, the combined fair value of the guarantees was \$7 and \$8, respectively, which was included in Other noncurrent liabilities and deferred credits on the accompanying Consolidated Balance Sheet.

The mining and refining company has project financing totaling \$2,232, of which \$560 represents Alcoa World Alumina and Chemical's (AWAC) 25.1% interest in the mining and refining company. In conjunction with the financings, Alcoa, on behalf of AWAC, issued guarantees to the lenders in the event that the mining and refining company defaults on its debt service requirements through 2019 and 2024 (Ma'aden issued similar guarantees for its 74.9% interest). Alcoa's guarantees for the mining and refining company cover total debt service requirements of \$120 in principal and up to a maximum of approximately \$30 in interest per year (based on projected interest rates). At September 30, 2015 and December 31, 2014, the combined fair value of the guarantees was \$3 and \$4, respectively, which was included in Other noncurrent liabilities and deferred credits on the accompanying Consolidated Balance Sheet. In the event Alcoa would be required to make payments under the guarantees, 40% of such amount would be contributed to Alcoa by Alumina Limited, consistent with its ownership interest in AWAC.

Alumínio, a wholly-owned subsidiary of Alcoa, is a participant in four consortia that each owns a hydroelectric power project in Brazil. One of these projects is known as Estreito, which reached full capacity in March 2013. Alumínio's investment in this project is 25.49%, which entitles Alumínio to approximately 150 megawatts of assured power. The Estreito consortium is an unincorporated joint venture, and, therefore, Alumínio's share of the assets and liabilities of the consortium are reflected in the respective lines on the accompanying Consolidated Balance Sheet. Total estimated project costs are approximately \$1,260 (R\$5,170) and Alumínio's share is approximately \$320 (R\$1,320). As of September 30, 2015, approximately \$310 (R\$1,270) of Alumínio's commitment was expended on the project.

In 2004, Alcoa acquired a 20% interest in a consortium, which subsequently purchased the Dampier to Bunbury Natural Gas Pipeline (DBNGP) in Western Australia, in exchange for an initial cash investment of \$17 (A\$24). The investment in the DBNGP, which is classified as an equity investment, was made in order to secure a competitively priced long-term supply of natural gas to Alcoa's refineries in Western Australia. Alcoa made additional contributions of \$141 (A\$176) for its share of the pipeline capacity expansion and other operational purposes of the consortium through September 2011. No further expansion of the pipeline's capacity is planned at this time. In late 2011, the consortium initiated a three-year equity call plan to improve its capitalization structure. This plan required Alcoa to contribute \$39 (A\$40), all of which was made through December 2014. Following the completion of the three-year equity call plan in December 2014, the consortium initiated a new equity call plan to further improve its capitalization structure. This plan requires Alcoa to contribute \$30 (A\$36) through mid 2016, of which \$12 (A\$16) was made through September 30, 2015, including \$3 (A\$4) and \$11 (A\$15) in the 2015 third quarter and nine-month period, respectively. In addition to its equity ownership, Alcoa has an agreement to purchase gas transmission services from the DBNGP. At September 30, 2015, Alcoa has an asset of \$256 (A\$366) representing prepayments made under the agreement for future gas transmission services. Alcoa's maximum exposure to loss on the investment and the related contract is approximately \$370 (A\$520) as of September 30, 2015.

On April 8, 2015, Alcoa's majority-owned subsidiary, Alcoa of Australia Limited (AofA), which is part of AWAC, secured a new 12-year gas supply agreement to power its three alumina refineries in Western Australia beginning in July 2020. This agreement was conditional on the completion of a third-party acquisition of the related energy assets from the current owner, which occurred in the 2015 second quarter. The terms of AofA's gas supply agreement require a prepayment of \$500 to be made in two installments. The first installment of \$300 was made at the time of the completion of the third-party acquisition in June 2015 and was reflected in Other noncurrent assets on the accompanying Consolidated Balance Sheet. The second installment of \$200 will be made in January 2016.

#### H. Other (Income) Expenses, Net

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Equity loss	\$ 24	\$ 16	\$ 68	\$ 84
Interest income	(4)	(3)	(11)	(13)
Foreign currency gains, net	(17)	(5)	(27)	—
Net gain from asset sales	(41)	(15)	(69)	(44)
Net loss on mark-to-market derivative contracts (N)	16	20	19	17
Other, net	7	10	(7)	9
	<u>\$ (15)</u>	<u>\$ 23</u>	<u>\$ (27)</u>	<u>\$ 53</u>



**I. Segment Information** – In the third quarter of 2015, management approved a realignment of Alcoa’s Engineered Products and Solutions segment due to the expansion of this part of Alcoa’s business portfolio through both organic and inorganic growth. This realignment consisted of moving both the Alcoa Wheel and Transportation Products and Building and Construction Systems business units to a new reportable segment named Transportation and Construction Solutions. Additionally, the Latin American soft alloy extrusions business previously included in Corporate was moved into the new Transportation and Construction Solutions segment. The remaining Engineered Products and Solutions segment consists of the Alcoa Fastening Systems and Rings (renamed to include portions of the Firth Rixson business acquired in November 2014), Alcoa Power and Propulsion (includes the TITAL business acquired in March 2015), Alcoa Forgings and Extrusions (includes the other portions of Firth Rixson), and Alcoa Titanium and Engineered Products (a new business unit that represents the RTI International Metals business acquired in July 2015) business units. Segment information for all prior periods presented was updated to reflect the new segment structure.

Effective in the second quarter of 2015, management removed the impact of metal price lag from the results of the Global Rolled Products and Engineered Products and Solutions (now Engineered Products and Solutions and Transportation and Construction Solutions – see above) segments in order to enhance the visibility of the underlying operating performance of these businesses. Metal price lag describes the timing difference created when the average price of metal sold differs from the average cost of the metal when purchased by the respective segment. In general, when the price of metal increases, metal price lag is favorable, and when the price of metal decreases, metal price lag is unfavorable. The impact of metal price lag is now reported as a separate line item in Alcoa’s reconciliation of total segment ATOI to consolidated net income attributable to Alcoa. As a result, this change does not impact the consolidated results of Alcoa. Segment information for all prior periods presented was updated to reflect this change.

The operating results of Alcoa’s reportable segments were as follows (differences between segment totals and consolidated totals are in Corporate):

	<u>Alumina</u>	<u>Primary Metals</u>	<u>Global Rolled Products</u>	<u>Engineered Products and Solutions</u>	<u>Transportation and Construction Solutions</u>	<u>Total</u>
<b>Third quarter ended September 30, 2015</b>						
Sales:						
Third-party sales	\$ 912	\$ 1,249	\$ 1,527	\$ 1,397	\$ 475	\$ 5,560
Intersegment sales	391	479	29	—	—	899
Total sales	<u>\$ 1,303</u>	<u>\$ 1,728</u>	<u>\$ 1,556</u>	<u>\$ 1,397</u>	<u>\$ 475</u>	<u>\$ 6,459</u>
Profit and loss:						
Equity loss	\$ (9)	\$ (7)	\$ (8)	\$ —	\$ —	\$ (24)
Depreciation, depletion, and amortization	71	106	56	61	11	305
Income taxes	85	(49)	28	71	18	153
After-tax operating income (ATOI)	212	(59)	62	151	44	410
<b>Third quarter ended September 30, 2014</b>						
Sales:						
Third-party sales	\$ 886	\$ 1,865	\$ 1,926	\$ 1,034	\$ 523	\$ 6,234
Intersegment sales	482	730	52	—	—	1,264
Total sales	<u>\$ 1,368</u>	<u>\$ 2,595</u>	<u>\$ 1,978</u>	<u>\$ 1,034</u>	<u>\$ 523</u>	<u>\$ 7,498</u>
Profit and loss:						
Equity loss	\$ (7)	\$ —	\$ (8)	\$ —	\$ —	\$ (15)
Depreciation, depletion, and amortization	100	124	62	32	10	328
Income taxes	26	95	26	78	20	245
ATOI	62	245	69	155	50	581

	Alumina	Primary Metals	Global Rolled Products	Engineered Products and Solutions	Transportation and Construction Solutions	Total
<b>Nine months ended September 30, 2015</b>						
Sales:						
Third-party sales	\$ 2,723	\$ 4,355	\$ 4,816	\$ 3,933	\$ 1,438	\$17,265
Intersegment sales	1,323	1,733	99	—	—	3,155
Total sales	<u>\$ 4,046</u>	<u>\$ 6,088</u>	<u>\$ 4,915</u>	<u>\$ 3,933</u>	<u>\$ 1,438</u>	<u>\$20,420</u>
Profit and loss:						
Equity loss	\$ (27)	\$ (15)	\$ (24)	\$ —	\$ —	\$ (66)
Depreciation, depletion, and amortization	228	324	168	166	32	918
Income taxes	264	14	89	228	49	644
ATOI	648	195	192	472	126	1,633
<b>Nine months ended September 30, 2014</b>						
Sales:						
Third-party sales	\$ 2,492	\$ 4,948	\$ 5,463	\$ 3,103	\$ 1,521	\$17,527
Intersegment sales	1,472	2,182	139	—	—	3,793
Total sales	<u>\$ 3,964</u>	<u>\$ 7,130</u>	<u>\$ 5,602</u>	<u>\$ 3,103</u>	<u>\$ 1,521</u>	<u>\$21,320</u>
Profit and loss:						
Equity loss	\$ (19)	\$ (45)	\$ (19)	\$ —	\$ —	\$ (83)
Depreciation, depletion, and amortization	297	377	178	95	31	978
Income taxes	78	114	73	234	55	554
ATOI	192	327	193	455	142	1,309

The following table reconciles total segment ATOI to consolidated net income attributable to Alcoa:

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Total segment ATOI	\$ 410	\$ 581	\$1,633	\$1,309
Unallocated amounts (net of tax):				
Impact of LIFO	50	(18)	93	(33)
Metal price lag	(48)	38	(110)	56
Interest expense	(80)	(81)	(240)	(228)
Noncontrolling interests	(62)	18	(189)	46
Corporate expense	(72)	(72)	(199)	(204)
Restructuring and other charges	(48)	(189)	(368)	(587)
Other	(106)	(128)	(241)	(250)
Consolidated net income attributable to Alcoa	<u>\$ 44</u>	<u>\$ 149</u>	<u>\$ 379</u>	<u>\$ 109</u>

Items required to reconcile total segment ATOI to consolidated net income attributable to Alcoa include: the impact of LIFO inventory accounting and metal price lag; interest expense; noncontrolling interests; corporate expense (general administrative and selling expenses of operating the corporate headquarters and other global administrative facilities, along with depreciation and amortization on corporate-owned assets); restructuring and other charges; and other items, including intersegment profit eliminations, differences between tax rates applicable to the segments and the consolidated effective tax rate, and other nonoperating items such as foreign currency transaction gains/losses and interest income.

**J. Earnings Per Share** – Basic earnings per share (EPS) amounts are computed by dividing earnings, after the deduction of preferred stock dividends declared, by the average number of common shares outstanding. Diluted EPS amounts assume the issuance of common stock for all potentially dilutive share equivalents outstanding.

The information used to compute basic and diluted EPS attributable to Alcoa common shareholders was as follows (shares in millions):

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Net income attributable to Alcoa	\$ 44	\$ 149	\$ 379	\$ 109
Less: preferred stock dividends declared	18	—	52	1
Net income available to Alcoa common shareholders – basic	26	149	327	108
Add: dividends related to mandatory convertible preferred stock	—	—	—	—
Add: interest expense related to convertible notes	—	—	—	—
Net income available to Alcoa common shareholders – diluted	\$ 26	\$ 149	\$ 327	\$ 108
Average shares outstanding – basic	1,281	1,177	1,241	1,150
Effect of dilutive securities:				
Stock options	1	8	4	6
Stock and performance awards	12	12	12	11
Mandatory convertible preferred stock	—	8	—	3
Convertible notes	—	—	—	—
Average shares outstanding – diluted	1,294	1,205	1,257	1,170

In the 2015 third quarter and nine-month period, 77 million share equivalents related to mandatory convertible preferred stock and 25 million and 8 million (weighted-average), respectively, share equivalents related to convertible debt (acquired through RTI – see Note E) were not included in the computation of diluted EPS because their effect was anti-dilutive.

In the first quarter of 2014, holders of convertible notes exercised their option to convert the notes into 89 million shares of Alcoa common stock. As a result, for the 2014 third quarter, these 89 million shares were outstanding for the entire period and were included in both basic and diluted average shares outstanding. For the 2014 nine-month period, these 89 million shares were outstanding for a portion of the period equivalent to a weighted average of 67 million shares. The 67 million shares were included in both basic and diluted average shares outstanding for the 2014 nine-month period. For the portion of the 2014 nine-month period that the notes were still outstanding debt, a weighted average of the 89 million share equivalents (22 million) would have been included only in the diluted average shares outstanding if their effect was dilutive.

Options to purchase 26 million and 3 million shares of common stock at a weighted average exercise price of \$12.76 and \$16.24 per share were outstanding as of September 30, 2015 and 2014, respectively, but were not included in the computation of diluted EPS because they were anti-dilutive, as the exercise prices of the options were greater than the average market price of Alcoa's common stock.

In July 2015, Alcoa issued 87 million shares of its common stock to acquire RTI (see Note E). As a result, the basic average number of shares in the 2015 third quarter and nine-month period includes 58 million and 20 million, respectively, representing the weighted average number of shares for the length of time the 87 million shares were outstanding during the respective periods.

**K. Income Taxes** – The effective tax rate for the third quarter of 2015 and 2014 was 48.5% and 60.3%, respectively.

The rate for the 2015 third quarter differs from the U.S. federal statutory rate of 35% primarily due to restructuring charges related to the curtailment of a refinery in Suriname (see Note D), a portion for which no tax benefit was recognized.

The rate for the 2014 third quarter differs from the U.S. federal statutory rate of 35% primarily due to a \$56 discrete income tax charge related to a tax rate change in Brazil, restructuring charges related to operations in Italy for which no tax benefit was recognized (see Note D), and an \$8 unfavorable impact related to the interim period treatment of operational losses in certain foreign jurisdictions for which no tax benefit was recognized (impact reversed by the end of 2014), slightly offset by a \$9 discrete income tax benefit for the release of a valuation allowance related to operations in Germany due to the initiation of a tax planning strategy.

The effective tax rate for the 2015 and 2014 nine-month periods was 41.4% and 76.0%, respectively.

The rate for the 2015 nine-month period differs from the U.S. federal statutory rate of 35% primarily due to a loss on the sale of a rolling mill in Russia (see Note E) for which no tax benefit was recognized, a \$34 net discrete income tax charge as described below, and restructuring charges related to the curtailment of a refinery in Suriname (see Note D), a portion for which no tax benefit was recognized. These items were partially offset by foreign income taxed in lower rate jurisdictions.

In the first quarter of 2015, AWAC, a joint venture owned 60% by Alcoa and 40% by Alumina Limited (Alcoa consolidates AWAC for financial reporting purposes), recognized an \$83 discrete income tax charge (increased to \$85 in the 2015 second quarter) for a valuation allowance on certain deferred tax assets, which were related mostly to employee benefits and tax loss carryforwards. Alcoa also had a \$50 deferred tax liability (increased to \$51 in the 2015 second quarter) related to its 60%-share of these deferred tax assets that was written off as a result of the valuation allowance recognized by AWAC.

The rate for the 2014 nine-month period differs from the U.S. federal statutory rate of 35% primarily due to the previously mentioned \$56 discrete income tax charge and a \$44 unfavorable impact related to the interim period treatment of operational losses in certain foreign jurisdictions for which no tax benefit was recognized (impact reversed by the end of 2014).

**L. Receivables** – Alcoa has an arrangement with three financial institutions to sell certain customer receivables without recourse on a revolving basis. The sale of such receivables is completed through the use of a bankruptcy remote special purpose entity, which is a consolidated subsidiary of Alcoa. This arrangement provides for minimum funding of \$200 up to a maximum of \$500 for receivables sold. The initial sale of receivables in March 2012 resulted in the setup of a deferred purchase price of \$254. Alcoa has received net cash funding of \$250 (\$1,308 in draws and \$1,058 in repayments) since the program's inception (no draws or repayments occurred in the 2015 nine-month period).

As of September 30, 2015 and December 31, 2014, the deferred purchase price receivable was \$361 and \$356, respectively, which was included in Other receivables on the accompanying Consolidated Balance Sheet. The deferred purchase price receivable is reduced as collections of the underlying receivables occur; however, as this is a revolving program, the sale of new receivables will result in an increase in the deferred purchase price receivable. The net change in the deferred purchase price receivable was reflected in the (Increase) in receivables line item on the accompanying Statement of Consolidated Cash Flows. This activity is reflected as an operating cash flow because the related customer receivables are the result of an operating activity with an insignificant, short-term interest rate risk.

The gross amount of receivables sold and total cash collected under this program since its inception was \$22,990 and \$22,379, respectively. Alcoa services the customer receivables for the financial institutions at market rates; therefore, no servicing asset or liability was recorded.

**M. Pension and Other Postretirement Benefits** – The components of net periodic benefit cost were as follows:

<b>Pension benefits</b>	<b>Third quarter ended</b>		<b>Nine months ended</b>	
	<b>September 30,</b>		<b>September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Service cost	\$ 44	\$ 42	\$ 132	\$ 125
Interest cost	144	157	433	476
Expected return on plan assets	(189)	(198)	(566)	(586)
Recognized net actuarial loss	117	97	352	292
Amortization of prior service cost	4	5	12	14
Settlements*	13	18	14	18
Curtailments*	9	—	9	—
Special termination benefits*	—	—	12	—
<b>Net periodic benefit cost</b>	<b>\$ 142</b>	<b>\$ 121</b>	<b>\$ 398</b>	<b>\$ 339</b>

\* Except for Settlements of \$2 in both the third quarter and nine months ended September 30, 2015, these amounts were recorded in Restructuring and other charges on the accompanying Statement of Consolidated Operations (see Note D).

<b>Other postretirement benefits</b>	<b>Third quarter ended</b>		<b>Nine months ended</b>	
	<b>September 30,</b>		<b>September 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Service cost	\$ 4	\$ 4	\$ 11	\$ 12
Interest cost	23	28	69	86
Recognized net actuarial loss	4	4	13	10
Amortization of prior service benefit	(9)	(6)	(28)	(15)
Curtailments*	(5)	—	(6)	—
Special termination benefits*	—	—	1	—
<b>Net periodic benefit cost</b>	<b>\$ 17</b>	<b>\$ 30</b>	<b>\$ 60</b>	<b>\$ 93</b>

\* These amounts were recorded in Restructuring and other charges on the accompanying Statement of Consolidated Operations (see Note D).

## **N. Derivatives and Other Financial Instruments**

### **Fair Value**

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (i) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (ii) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1 - Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates); and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 - Inputs that are both significant to the fair value measurement and unobservable.

### **Derivatives**

Alcoa is exposed to certain risks relating to its ongoing business operations, including financial, market, political, and economic risks. The following discussion provides information regarding Alcoa's exposure to the risks of changing commodity prices, interest rates, and foreign currency exchange rates.

Alcoa's commodity and derivative activities are subject to the management, direction, and control of the Strategic Risk Management Committee (SRMC), which is composed of the chief executive officer, the chief financial officer, and other officers and employees that the chief executive officer selects. The SRMC meets on a periodic basis to review derivative positions and strategy and reports to Alcoa's Board of Directors on the scope of its activities.

The aluminum, energy, interest rate, and foreign exchange contracts are held for purposes other than trading. They are used primarily to mitigate uncertainty and volatility, and to cover underlying exposures. Alcoa is not involved in trading activities for energy, weather derivatives, or other nonexchange commodity trading activities.

A number of Alcoa's aluminum, energy, and foreign exchange contracts are classified as Level 1 and an interest rate contract is classified as Level 2 under the fair value hierarchy. These energy, foreign exchange, and interest rate contracts are not material to Alcoa's Consolidated Financial Statements for all periods presented except as follows for a foreign exchange contract. Alcoa had a forward contract to purchase \$231 (R\$543) to mitigate the foreign currency risk associated with a potential future transaction denominated in Brazilian reais. This contract expired on March 31, 2014 and a loss of \$4 was recognized in Other expenses, net on the accompanying Statement of Consolidated Operations in the 2014 first quarter.

For the aluminum contracts classified as Level 1, the total fair value of derivatives recorded as assets and liabilities was \$6 and \$54 and \$2 and \$31 at September 30, 2015 and December 31, 2014, respectively. These contracts were entered into to either hedge forecasted sales or purchases of aluminum in order to manage the associated aluminum price risk. Certain of these contracts are designated as hedging instruments, either fair value or cash flow, and the remaining are not designated as such. Combined, Alcoa recognized a net loss of \$7 and a net gain of \$34 in the 2015 third quarter and nine-month period, respectively, and a net loss of \$2 and \$15 in the 2014 third quarter and nine-month period, respectively, in Sales on the accompanying Statement of Consolidated Operations related to these aluminum contracts.

In addition to the Level 1 and 2 derivative instruments described above, Alcoa has nine derivative instruments classified as Level 3 under the fair value hierarchy. These instruments are composed of seven embedded aluminum derivatives, an energy contract, and an embedded credit derivative, all of which relate to energy supply contracts associated with eight smelters and three refineries. Five of the embedded aluminum derivatives and the energy contract were designated as cash flow hedging instruments and two of the embedded aluminum derivatives and the embedded credit derivative were not designated as hedging instruments.

The following section describes the valuation methodologies used by Alcoa to measure its Level 3 derivative instruments at fair value. Derivative instruments classified as Level 3 in the fair value hierarchy represent those in which management has used at least one significant unobservable input in the valuation model. Alcoa uses a discounted cash flow model to fair value all Level 3 derivative instruments. Where appropriate, the description below includes the key inputs to those models and any significant assumptions. These valuation models are reviewed and tested at least on an annual basis.

Inputs in the valuation models for Level 3 derivative instruments are composed of the following: (i) quoted market prices (e.g., aluminum prices on the 10-year London Metal Exchange (LME) forward curve and energy prices), (ii) significant other observable inputs (e.g., information concerning time premiums and volatilities for certain option type embedded derivatives and regional premiums for aluminum contracts), and (iii) unobservable inputs (e.g., aluminum and energy prices beyond those quoted in the market). For periods beyond the term of quoted market prices for aluminum, Alcoa estimates the price of aluminum by extrapolating the 10-year LME forward curve. Additionally, for periods beyond the term of quoted market prices for energy, management has developed a forward curve based on independent consultant market research. Where appropriate, valuations are adjusted for various factors such as liquidity, bid/offer spreads, and credit considerations. Such adjustments are generally based on available market evidence (Level 2). In the absence of such evidence, management's best estimate is used (Level 3). If a significant input that is unobservable in one period becomes observable in a subsequent period, the related asset or liability would be transferred to the appropriate classification (Level 1 or 2) in the period of such change (there were no such transfers in the periods presented).

Alcoa has embedded derivatives in two power contracts that index the price of power to the LME price of aluminum. Additionally, in late 2014, Alcoa renewed three power contracts, each of which contain an embedded derivative that indexes the price of power to the LME price of aluminum plus the Midwest premium. The embedded derivatives in these five power contracts are primarily valued using observable market prices; however, due to the length of the contracts, the valuation models also require management to estimate the long-term price of aluminum based upon an extrapolation of the 10-year LME forward curve and/or 5-year Midwest premium curve. Significant increases or decreases in the actual LME price beyond 10 years and/or the Midwest premium beyond 5 years would result in a higher or lower fair value measurement. An increase in actual LME price and/or the Midwest premium over the inputs used in the valuation models will result in a higher cost of power and a corresponding decrease to the derivative asset or increase to the derivative liability. The embedded derivatives have been designated as cash flow hedges of forward sales of aluminum. Unrealized gains and losses were included in Other comprehensive loss on the accompanying Consolidated Balance Sheet while realized gains and losses were included in Sales on the accompanying Statement of Consolidated Operations.

Also, Alcoa has a power contract separate from above that contains an LME-linked embedded derivative. The embedded derivative is valued using the probability and interrelationship of future LME prices, Australian dollar to U.S. dollar exchange rates, and the U.S. consumer price index. Significant increases or decreases in the LME price would result in a higher or lower fair value measurement. An increase in actual LME price over the inputs used in the valuation model will result in a higher cost of power and a corresponding decrease to the derivative asset. This embedded derivative did not qualify for hedge accounting treatment. Unrealized gains and losses from the embedded derivative were included in Other (income) expenses, net on the accompanying Statement of Consolidated Operations while realized gains and losses were included in Cost of goods sold on the accompanying Statement of Consolidated Operations as electricity purchases were made under the contract. At the time this derivative asset was recognized, an equivalent amount was recognized as a deferred credit in Other noncurrent liabilities and deferred credits on the accompanying Consolidated Balance Sheet. This deferred credit is recognized in Other (income) expenses, net on the accompanying Statement of Consolidated Operations as power is received over the life of the contract. Alcoa had a similar power contract and related embedded derivative associated with another smelter and rolling mill combined; however, the contract and related derivative instrument matured in July 2014.

Additionally, Alcoa has a natural gas supply contract, which has an LME-linked ceiling. This embedded derivative is valued using probabilities of future LME aluminum prices and the price of Brent crude oil (priced on Platts), including the interrelationships between the two commodities subject to the ceiling. Any change in the interrelationship would result in a higher or lower fair value measurement. An LME ceiling was embedded into the contract price to protect against an increase in the price of oil without a corresponding increase in the price of LME. An increase in oil prices with no similar increase in the LME price would limit the increase of the price paid for natural gas. This embedded derivative did not qualify for hedge accounting treatment. Unrealized gains and losses from the embedded derivative were included in Other (income) expenses, net on the accompanying Statement of Consolidated Operations while realized gains and losses were included in Cost of goods sold on the accompanying Statement of Consolidated Operations as gas purchases were made under the contract.

Furthermore, Alcoa has an embedded derivative in a power contract that indexes the difference between the long-term debt ratings of Alcoa and the counterparty from any of the three major credit rating agencies. Management uses market prices, historical relationships, and forecast services to determine fair value. Significant increases or decreases in any of these inputs would result in a lower or higher fair value measurement. A wider credit spread between Alcoa and the counterparty would result in a higher cost of power and a corresponding increase in the derivative liability. This embedded derivative did not qualify for hedge accounting treatment. Unrealized gains and losses were included in Other (income) expenses, net on the accompanying Statement of Consolidated Operations while realized gains and losses were included in Cost of goods sold on the accompanying Statement of Consolidated Operations as electricity purchases were made under the contract.

Finally, Alcoa has a derivative contract that will hedge the anticipated power requirements at one of its smelters once the existing power contract expires in 2016. Beyond the term where market information is available, management has developed a forward curve, for valuation purposes, based on independent consultant market research. Significant increases or decreases in the power market may result in a higher or lower fair value measurement. Lower prices in the power market would cause a decrease in the derivative asset. The derivative contract has been designated as a cash flow hedge of future purchases of electricity. Unrealized gains and losses on this contract were recorded in Other comprehensive loss on the accompanying Consolidated Balance Sheet. Once the designated hedge period begins in 2016, realized gains and losses will be recorded in Cost of goods sold as electricity purchases are made under the power contract.

The following table presents quantitative information related to the significant unobservable inputs described above for Level 3 derivative contracts:

	Fair value at September 30, 2015	Unobservable input	Range (\$ in full amounts)
<b>Assets:</b>			
Embedded aluminum derivatives	\$ 784	Price of aluminum beyond forward curve	Aluminum: \$2,160 per metric ton in 2026 to \$2,347 per metric ton in 2029 (two contracts) and \$2,643 per metric ton in 2036 (one contract) Midwest premium: \$0.0795 per pound in 2021 to \$0.0795 per pound in 2029 (two contracts) and 2036 (one contract)
Embedded aluminum derivative	87	Interrelationship of future aluminum prices, foreign currency exchange rates, and the U.S. consumer price index (CPI)	Aluminum: \$1,562 per metric ton in 2015 to \$1,615 per metric ton in 2016 Foreign currency: A\$1 = \$0.70 in 2015 to \$0.70 in 2016 CPI: 1982 base year of 100 and 235 in 2015 to 239 in 2016
Embedded aluminum derivative	4	Interrelationship of LME price to overall energy price	Aluminum: \$1,560 per metric ton in 2015 to \$1,817 per metric ton in 2019
Embedded aluminum derivative	—	Interrelationship of future aluminum and oil prices	Aluminum: \$1,562 per metric ton in 2015 to \$1,762 per metric ton in 2018 Oil: \$47 per barrel in 2015 to \$60 per barrel in 2018
<b>Liabilities:</b>			
Embedded aluminum derivative	223	Price of aluminum beyond forward curve	Aluminum: \$2,160 per metric ton in 2026 to \$2,239 per metric ton in 2027
Embedded credit derivative	32	Credit spread between Alcoa and counterparty	3.04% to 3.50% (3.27% median)
Energy contract	5	Price of electricity beyond forward curve	Electricity: \$45 per megawatt hour in 2018 to \$121 per megawatt hour in 2036



The fair values of Level 3 derivative instruments recorded as assets and liabilities in the accompanying Consolidated Balance Sheet were as follows:

	September 30, 2015	December 31, 2014
<b>Asset Derivatives</b>		
Derivatives designated as hedging instruments:		
Prepaid expenses and other current assets:		
Embedded aluminum derivatives	\$ 70	\$ 24
Other noncurrent assets:		
Embedded aluminum derivative	718	73
Energy contract	—	2
Total derivatives designated as hedging instruments	<u>\$ 788</u>	<u>\$ 99</u>
Derivatives not designated as hedging instruments:		
Prepaid expenses and other current assets:		
Embedded aluminum derivatives	\$ 87	\$ 98
Other noncurrent assets:		
Embedded aluminum derivatives	—	71
Total derivatives not designated as hedging instruments	<u>\$ 87</u>	<u>\$ 169</u>
Total Asset Derivatives	<u>\$ 875</u>	<u>\$ 268</u>
<b>Liability Derivatives</b>		
Derivatives designated as hedging instruments:		
Other current liabilities:		
Embedded aluminum derivative	\$ 11	\$ 24
Other noncurrent liabilities and deferred credits:		
Embedded aluminum derivatives	213	352
Energy contract	4	—
Total derivatives designated as hedging instruments	<u>\$ 228</u>	<u>\$ 376</u>
Derivatives not designated as hedging instruments:		
Other current liabilities:		
Embedded credit derivative	\$ 4	\$ 2
Other noncurrent liabilities and deferred credits:		
Embedded credit derivative	28	16
Total derivatives not designated as hedging instruments	<u>\$ 32</u>	<u>\$ 18</u>
Total Liability Derivatives	<u>\$ 260</u>	<u>\$ 394</u>

The following tables present a reconciliation of activity for Level 3 derivative contracts:

	Assets		Liabilities		
	Embedded aluminum derivatives	Energy contract	Embedded aluminum derivatives	Embedded credit derivative	Energy contract
<b>Third quarter ended September 30, 2015</b>					
Opening balance – July 1, 2015	\$ 680	\$ —	\$ 298	\$ 19	\$ 9
Total gains or losses (realized and unrealized) included in:					
Sales	(2)	—	(3)	—	—
Cost of goods sold	(25)	—	—	—	—
Other income, net	(4)	—	—	13	—
Other comprehensive loss	229	—	(72)	—	(5)
Purchases, sales, issuances, and settlements*	—	—	—	—	—
Transfers into and/or out of Level 3*	—	—	—	—	—
Foreign currency translation	(3)	—	—	—	1
Closing balance – September 30, 2015	\$ 875	\$ —	\$ 223	\$ 32	\$ 5
Change in unrealized gains or losses included in earnings for derivative contracts held at September 30, 2015:					
Sales	\$ —	\$ —	\$ —	\$ —	\$ —
Cost of goods sold	—	—	—	—	—
Other income, net	(4)	—	—	13	—

\* There were no purchases, sales, issuances or settlements of Level 3 derivative instruments. Additionally, there were no transfers of derivative instruments into or out of Level 3.

	Assets		Liabilities		
	Embedded aluminum derivatives	Energy contract	Embedded aluminum derivatives	Embedded credit derivative	Energy contract
<b>Nine months ended September 30, 2015</b>					
Opening balance – January 1, 2015	\$ 266	\$ 2	\$ 376	\$ 18	\$ —
Total gains or losses (realized and unrealized) included in:					
Sales	11	—	(14)	—	—
Cost of goods sold	(70)	—	—	—	—
Other income, net	(5)	—	—	14	—
Other comprehensive loss	680	(2)	(139)	—	4
Purchases, sales, issuances, and settlements*	—	—	—	—	—
Transfers into and/or out of Level 3*	—	—	—	—	—
Foreign currency translation	(7)	—	—	—	1
Closing balance – September 30, 2015	\$ 875	\$ —	\$ 223	\$ 32	\$ 5
Change in unrealized gains or losses included in earnings for derivative contracts held at September 30, 2015:					
Sales	\$ —	\$ —	\$ —	\$ —	\$ —
Cost of goods sold	—	—	—	—	—
Other income, net	(5)	—	—	14	—

\* There were no purchases, sales, issuances or settlements of Level 3 derivative instruments. Additionally, there were no transfers of derivative instruments into or out of Level 3.

## Derivatives Designated As Hedging Instruments – Cash Flow Hedges

For derivative instruments that are designated and qualify as cash flow hedges, the effective portion of unrealized gains or losses on the derivative is reported as a component of other comprehensive income (OCI). Realized gains or losses on the derivative are reclassified from OCI into earnings in the same period or periods during which the hedged transaction impacts earnings. Gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized directly in earnings immediately.

Alcoa has five Level 3 embedded aluminum derivatives and one Level 3 energy contract that have been designated as cash flow hedges as follows.

**Embedded aluminum derivatives.** Alcoa has entered into energy supply contracts that contain pricing provisions related to the LME aluminum price. The LME-linked pricing features are considered embedded derivatives. Five of these embedded derivatives have been designated as cash flow hedges of forward sales of aluminum, three of which were new derivatives contained in three power contracts that were renewed in late 2014. At September 30, 2015 and December 31, 2014, these embedded aluminum derivatives hedge forecasted aluminum sales of 3,369 kmt and 3,610 kmt, respectively.

In the 2015 third quarter and nine-month period and the 2014 third quarter and nine-month period, Alcoa recognized an unrealized gain of \$301 and \$819 and an unrealized loss of \$4 and \$28, respectively, in Other comprehensive loss related to these five derivative instruments. Additionally, Alcoa reclassified a realized loss of \$1 and \$25 and \$8 and \$19 from Accumulated other comprehensive loss to Sales in the 2015 third quarter and nine-month period and the 2014 third quarter and nine-month period, respectively. Assuming market rates remain constant with the rates at September 30, 2015, a realized gain of \$41 is expected to be recognized in Sales over the next 12 months.

In the 2015 third quarter and nine-month period and the 2014 third quarter and nine-month period, Alcoa also recognized a gain of less than \$1 and \$2 and a loss of less than \$1 and \$1, respectively, in Other (income) expenses, net related to the amount excluded from the assessment of hedge effectiveness. There was no ineffectiveness related to these five derivative instruments in the 2015 third quarter and nine-month period and the 2014 third quarter and nine-month period.

**Energy contract.** Alcoa has a derivative contract that will hedge the anticipated power requirements at one of its smelters once the existing power contract expires in 2016. At September 30, 2015 and December 31, 2014, this energy contract hedges forecasted electricity purchases of 59,409,328 megawatt hours. In the 2015 third quarter and nine-month period and the 2014 third quarter and nine-month period, Alcoa recognized an unrealized gain of \$3 and an unrealized loss of \$8 and an unrealized loss of \$28 and \$10, respectively, in Other comprehensive loss. There was no ineffectiveness related to the energy contract in the 2015 third quarter and nine-month period and the 2014 third quarter and nine-month period.

## Derivatives Not Designated As Hedging Instruments

Alcoa has two Level 3 embedded aluminum derivatives and one Level 3 embedded credit derivative that do not qualify for hedge accounting treatment. As such, gains and losses related to the changes in fair value of these instruments are recorded directly in earnings. In the third quarter of 2015 and 2014, Alcoa recognized a loss of \$17 and \$21, respectively, in Other (income) expenses, net, of which a loss of \$4 and \$11, respectively, related to the two embedded aluminum derivatives and a loss of \$13 and \$10, respectively, related to the embedded credit derivative. In the nine-month period of 2015 and 2014, Alcoa recognized a loss of \$19 and \$15, respectively, in Other (income) expenses, net, of which a loss of \$5 and \$12, respectively, related to the two embedded aluminum derivatives and a loss of \$14 and \$3, respectively, related to the embedded credit derivative.

## Material Limitations

The disclosures with respect to commodity prices, interest rates, and foreign currency exchange risk do not take into account the underlying commitments or anticipated transactions. If the underlying items were included in the analysis, the gains or losses on the futures contracts may be offset. Actual results will be determined by a number of factors that are not under Alcoa's control and could vary significantly from those factors disclosed.

Alcoa is exposed to credit loss in the event of nonperformance by counterparties on the above instruments, as well as credit or performance risk with respect to its hedged customers' commitments. Although nonperformance is possible, Alcoa does not anticipate nonperformance by any of these parties. Contracts are with creditworthy counterparties and are further supported by cash, treasury bills, or irrevocable letters of credit issued by carefully chosen banks. In addition, various master netting arrangements are in place with counterparties to facilitate settlement of gains and losses on these contracts.

### **Other Financial Instruments**

The carrying values and fair values of Alcoa's other financial instruments were as follows:

	September 30, 2015		December 31, 2014	
	Carrying value	Fair value	Carrying value	Fair value
Cash and cash equivalents	\$ 1,739	\$1,739	\$ 1,877	\$1,877
Restricted cash	24	24	20	20
Noncurrent receivables	17	17	17	17
Available-for-sale securities	177	177	153	153
Short-term borrowings	50	50	54	54
Commercial paper	—	—	—	—
Long-term debt due within one year	136	136	29	29
Long-term debt, less amount due within one year	9,091	9,062	8,769	9,445

The following methods were used to estimate the fair values of other financial instruments:

**Cash and cash equivalents, Restricted cash, Short-term borrowings, and Commercial paper.** The carrying amounts approximate fair value because of the short maturity of the instruments. The fair value amounts for Cash and cash equivalents, Restricted cash, and Commercial paper were classified in Level 1, and Short-term borrowings were classified in Level 2.

**Noncurrent receivables.** The fair value of noncurrent receivables was based on anticipated cash flows, which approximates carrying value, and was classified in Level 2 of the fair value hierarchy.

**Available-for-sale securities.** The fair value of such securities was based on quoted market prices. These financial instruments consist of exchange-traded fixed income and equity securities, which are carried at fair value and were classified in Level 1 of the fair value hierarchy.

**Long-term debt due within one year and Long-term debt, less amount due within one year.** The fair value was based on quoted market prices for public debt and on interest rates that are currently available to Alcoa for issuance of debt with similar terms and maturities for non-public debt. The fair value amounts for all Long-term debt were classified in Level 2 of the fair value hierarchy.

**O. Proposed Separation Transaction** – On September 28, 2015, Alcoa announced that its Board of Directors approved a plan to separate into two independent, publicly-traded companies. One company will comprise the Alumina and Primary Metals segments and the other company will comprise the Global Rolled Products, Engineered Products and Solutions, and Transportation and Construction Solutions segments. Alcoa is targeting to complete the separation in the second half of 2016. The transaction is subject to a number of conditions, including, but not limited to, final approval by Alcoa's Board of Directors, receipt of a favorable opinion of legal counsel with respect to the tax-free nature of the transaction for U.S. federal income tax purposes, and the effectiveness of a Form 10 registration statement to be filed with the U.S. Securities and Exchange Commission. Upon completion of the separation, Alcoa shareholders will own all of the outstanding shares of both companies. Alcoa may, at any time and for any reason until the proposed transaction is complete, abandon the separation plan or modify or change its terms.

**P. Subsequent Events** – Management evaluated all activity of Alcoa and concluded that no subsequent events have occurred that would require recognition in the Consolidated Financial Statements or disclosure in the Notes to the Consolidated Financial Statements.

**Report of Independent Registered Public Accounting Firm\***

To the Shareholders and Board of Directors of Alcoa Inc.

We have reviewed the accompanying consolidated balance sheet of Alcoa Inc. and its subsidiaries (Alcoa) as of September 30, 2015, and the related statements of consolidated operations, consolidated comprehensive loss, and changes in consolidated equity for the three-month and nine-month periods ended September 30, 2015 and 2014 and the statement of consolidated cash flows for the nine-month periods ended September 30, 2015 and 2014. These consolidated interim financial statements are the responsibility of Alcoa's management.

We conducted our review in accordance with the standards of the Public Company Accounting Oversight Board (United States). A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States), the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated interim financial statements for them to be in conformity with accounting principles generally accepted in the United States of America.

We previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet as of December 31, 2014, and the related statements of consolidated operations, consolidated comprehensive loss, changes in consolidated equity, and consolidated cash flows for the year then ended (not presented herein), and in our report dated February 19, 2015, we expressed an unqualified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated balance sheet information as of December 31, 2014, is fairly stated in all material respects in relation to the consolidated balance sheet from which it has been derived.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP  
Pittsburgh, Pennsylvania  
October 22, 2015

\* This report should not be considered a "report" within the meanings of Sections 7 and 11 of the Securities Act of 1933, and the independent registered public accounting firm's liability under Section 11 does not extend to it.

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

(dollars in millions, except per share amounts and ingot prices; production and shipments in thousands of metric tons [kmt])

On September 28, 2015, Alcoa announced that its Board of Directors approved a plan to separate into two independent, publicly-traded companies. One company will comprise the Alumina and Primary Metals segments and the other company will comprise the Global Rolled Products, Engineered Products and Solutions, and Transportation and Construction Solutions segments. Alcoa is targeting to complete the separation in the second half of 2016. The transaction is subject to a number of conditions, including, but not limited to, final approval by Alcoa's Board of Directors, receipt of a favorable opinion of legal counsel with respect to the tax-free nature of the transaction for U.S. federal income tax purposes, and the effectiveness of a Form 10 registration statement to be filed with the U.S. Securities and Exchange Commission. Upon completion of the separation, Alcoa shareholders will own all of the outstanding shares of both companies. Alcoa may, at any time and for any reason until the proposed transaction is complete, abandon the separation plan or modify or change its terms.

### Results of Operations

#### Selected Financial Data:

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Sales	\$ 5,573	\$ 6,239	\$17,289	\$17,529
Net income attributable to Alcoa	\$ 44	\$ 149	\$ 379	\$ 109
Diluted earnings per share attributable to Alcoa common shareholders	\$ 0.02	\$ 0.12	\$ 0.26	\$ 0.09
Shipments of alumina (kmt)	2,798	2,714	8,042	7,724
Shipments of aluminum products (kmt)	1,137	1,225	3,393	3,598
Alcoa's average realized price per metric ton of primary aluminum	\$ 1,901	\$ 2,538	\$ 2,163	\$ 2,345

Net income attributable to Alcoa was \$44, or \$0.02 per diluted share, in the 2015 third quarter compared with \$149, or \$0.12 per share, in the 2014 third quarter. The decrease in results of \$105 was primarily the result of a lower average realized price for aluminum, partially offset by net favorable foreign currency movements, lower restructuring-related charges, net productivity improvements, and a favorable change in income taxes due to lower operating results.

Net income attributable to Alcoa was \$379, or \$0.26 per share, in the 2015 nine-month period compared with \$109, or \$0.09 per share, in the 2014 nine-month period. The improvement in results of \$270 was primarily the result of net favorable foreign currency movements, net productivity improvements, lower restructuring-related charges, and a higher average realized price for alumina. These positive impacts were partially offset by a lower average realized price for aluminum, an unfavorable change in income taxes due to higher operating results, and unfavorable price/product mix in the midstream and downstream operations.

Sales declined \$666, or 11%, in the 2015 third quarter and \$240, or 1%, in the 2015 nine-month period compared to the same periods in 2014. The decrease in both periods was largely attributable to the absence of sales related to capacity that was closed, sold or curtailed in the midstream and upstream operations (see Global Rolled Products and Primary Metals in Segment Information below), a lower average realized price for aluminum in both the upstream and midstream operations, and net unfavorable foreign currency movements. These negative impacts were partially offset in the 2015 third quarter and mostly offset in the 2015 nine-month period by the addition of sales from three recently acquired businesses (see Engineered Products and Solutions in Segment Information below), higher volume in the midstream and upstream operations, and favorable product mix in the midstream operations. Additionally, higher volume in the downstream operations, higher buy/resell activity for primary aluminum, and a higher average realized price for alumina had a positive impact on Sales in the 2015 nine-month period comparison.

Cost of goods sold (COGS) as a percentage of Sales was 81.8% in the 2015 third quarter and 79.0% in the 2015 nine-month period compared with 78.6% in the 2014 third quarter and 80.8% in the 2014 nine-month period.

In the 2015 third quarter, the percentage was negatively impacted by a lower average realized price for aluminum in the upstream operations, partially offset by net favorable foreign currency movements due to a stronger U.S. dollar and net productivity improvements across all segments.

The percentage in the 2015 nine-month period was positively impacted by net favorable foreign currency movements due to a stronger U.S. dollar, net productivity improvements across all segments, and higher volume in the midstream operations, partially offset by a lower average realized price for aluminum in the upstream operations, unfavorable price/product mix in the midstream and downstream operations, and higher costs.

Selling, general administrative, and other expenses (SG&A) increased \$18 and decreased \$7 in the 2015 third quarter and nine-month period, respectively, compared to the corresponding periods in 2014.

In the 2015 third quarter, the increase was principally due to expenses for professional and consulting services related to the planned separation (see above) of Alcoa (\$12) and both higher acquisition costs (\$7) and new SG&A related to inorganic growth in the Engineered Products and Solutions segment, partially offset by favorable foreign currency movements due to a stronger U.S. dollar and the absence of SG&A related to closed and sold locations.

The decline in the 2015 nine-month period was primarily driven by favorable foreign currency movements due to a stronger U.S. dollar and the absence of SG&A related to closed and sold locations, partially offset by expenses for professional and consulting services related to the planned separation (see above) of Alcoa (\$12) and both higher acquisition costs (\$9) and new SG&A related to inorganic growth in the Engineered Products and Solutions segment.

SG&A as a percentage of Sales increased from 3.9% in the 2014 third quarter to 4.7% in the 2015 third quarter, and was unchanged at 4.1% in both the 2014 nine-month period and the 2015 nine-month period.

Depreciation, depletion, and amortization (DD&A) declined \$29, or 8%, and \$78, or 8%, in the 2015 third quarter and nine-month period compared with the same periods in 2014. In both periods, the decrease was mainly caused by favorable foreign currency movements due to a stronger U.S. dollar and the absence of DD&A (\$17-third quarter and \$55-nine months) related to the divestiture and permanent closure of five smelters, six rolling mills, one refinery, and one rod mill, all of which occurred from March 2014 through June 2015, partially offset by new DD&A (\$29-third quarter and \$68-nine months) associated with three acquisitions that occurred from November 2014 through July 2015 in the Engineered Products and Solutions segment.

Restructuring and other charges were \$66 (\$30 after-tax and noncontrolling interest) and \$460 (\$329 after-tax and noncontrolling interest) in the 2015 third quarter and nine-month period, respectively.

In the 2015 third quarter, Restructuring and other charges included \$42 (\$20 after-tax and noncontrolling interest) for charges related to the decision to curtail the remaining capacity (887 kmt-per-year) at the refinery in Suriname; \$33 (\$29 after-tax) for layoff costs, including the separation of approximately 370 employees (355 in the Transportation and Construction Solutions segment and a combined 15 in three other segments and Corporate); an \$18 (\$13 after-tax) gain on the sale of land related to one of the rolling mills in Australia that was permanently closed in December 2014; \$11 (\$5 after-tax and noncontrolling interest) for exit costs related to the decision to permanently shut down and demolish a power station (see below); a net charge of \$2 (a net credit of \$9 after-tax and noncontrolling interest) for other miscellaneous items; and \$4 (\$2 after-tax and noncontrolling interest) for the reversal of a few layoff reserves related to prior periods.

In the 2015 nine-month period, Restructuring and other charges included \$190 (\$120 after-tax and noncontrolling interest) for exit costs related to decisions to permanently shut down and demolish a smelter and a power station (see below); \$161 (\$151 after-tax and noncontrolling interest) related to the March 2015 divestiture of a rolling mill in Russia and post-closing adjustments associated with three December 2014 divestitures; \$80 (\$43 after-tax and noncontrolling interest) for the separation of approximately 800 employees (680 in the Primary Metals segment and 120 in the Alumina segment), supplier contract-related costs, and other charges associated with the decisions to curtail the remaining capacity at both the refinery in Suriname (1,330 kmt-per-year) and the São Luís smelter (74 kmt-per-year); \$62 (\$50 after-tax and noncontrolling interest) for layoff costs, including the separation of approximately 970 employees (410 in the Transportation and Construction Solutions segment, 275 in the Engineered Products and Solutions segment, 165 in the Primary Metals segment, 70 in the Global Rolled Products segment, and 50 in Corporate); the previously mentioned \$18 (\$13 after-tax) gain on a land sale; a net credit of \$3 (\$13 after-tax and noncontrolling interest) for other miscellaneous items; and \$12 (\$9 after-tax and noncontrolling interest) for the reversal of a number of small layoff reserves related to prior periods.

In the second quarter of 2015, management approved the permanent shutdown and demolition of the Poços de Caldas smelter (capacity of 96 kmt-per-year) in Brazil and the Anglesea power station (includes the closure of a related coal mine) in Australia. The entire capacity at Poços de Caldas had been temporarily idled since May 2014 and the Anglesea power station was shut down at the end of August 2015. Demolition and remediation activities related to the Poços de Caldas smelter and the Anglesea power station will begin in late 2015 and are expected to be completed by the end of 2026 and 2020, respectively.

The decision on the Poços de Caldas smelter was due to management's conclusion that the smelter was no longer competitive as a result of challenging global market conditions for primary aluminum, which led to the initial curtailment, that have not dissipated and higher costs. For the Anglesea power station, the decision was made because a sale process did not result in a sale and there would have been imminent operating costs and financial constraints related to this site in the remainder of 2015 and beyond, including significant costs to source coal from available resources, necessary maintenance costs, and a depressed outlook for forward electricity prices. The Anglesea power station previously supplied approximately 40 percent of the power needs for the Point Henry smelter, which was closed in August 2014.

In the 2015 nine-month period, costs related to the shutdown actions included asset impairments of \$86, representing the write-off of the remaining book value of all related properties, plants, and equipment; \$22 (\$11 in the 2015 third quarter) for the layoff of approximately 90 employees (Primary Metals segment), including \$11 in pension costs; and \$82 in other exit costs. Additionally in the 2015 nine-month period, remaining inventories, mostly operating supplies and raw materials, were written down to their net realizable value, resulting in a charge of \$4 (\$2 after-tax and noncontrolling interest), which was recorded in COGS. The other exit costs of \$82 represent \$45 in asset retirement obligations and \$29 in environmental remediation, both of which were triggered by the decisions to permanently shut down and demolish the aforementioned structures in Brazil and Australia (includes the rehabilitation of a related coal mine), and \$8 in other related costs, including supplier and customer contract-related costs.

Restructuring and other charges were \$209 (\$175 after-tax and noncontrolling interest) and \$780 (\$503 after-tax and noncontrolling interest) in the 2014 third quarter and nine-month period, respectively.

In the 2014 third quarter, Restructuring and other charges included \$220 (\$186 after-tax and noncontrolling interest) for exit costs related to decisions to permanently shut down and demolish two smelters and two rolling mills (see below); \$5 (\$4 after-tax) for a gain on the sale of assets related to a previously shutdown location; a charge of \$4 (\$2 after-tax and noncontrolling interest) for other miscellaneous items; and \$10 (\$9 after-tax and noncontrolling interest) for the reversal of a number of layoff reserves related to prior periods, including those associated with a smelter in Italy due to changes in facts and circumstances (see below).

In the 2014 nine-month period, Restructuring and other charges included \$663 (\$426 after-tax and noncontrolling interest) for exit costs related to decisions to permanently shut down and demolish three smelters and two rolling mills (see below); \$67 (\$44 after-tax and noncontrolling interest) for the temporary curtailment of two smelters and a related production slowdown at one refinery (see below); \$33 (\$26 after-tax) for asset impairments related to prior capitalized costs for a modernization project at a smelter in Canada that is no longer being pursued; \$18 (\$11 after-tax and noncontrolling interest) for layoff costs, including the separation of approximately 245 employees (65 in the Engineered Products and Solutions segment, 50 in the Transportation and Construction Solutions segment, 30 in the Global Rolled Products segment, 10 in the Alumina and Primary Metals segments combined, and 90 in Corporate); a charge of \$16 (\$9 after-tax and noncontrolling interest) for other miscellaneous items; and \$17 (\$13 after-tax and noncontrolling interest) for the reversal of a number of layoff reserves related to prior periods, including those associated with a smelter in Italy due to changes in facts and circumstances (see below).

In the 2014 first quarter, management approved the permanent shutdown and demolition of the remaining capacity (84 kmt-per-year) at the Massena East smelter in New York and the full capacity (190 kmt-per-year) at the Point Henry smelter in Australia. The capacity at Massena East was fully shut down by the end March 2014 and the Point Henry smelter was fully shut down in August 2014. Demolition and remediation activities related to both the Massena East and Point Henry smelters began in late 2014 and are expected to be completed by the end of 2020 and 2018, respectively.

The decisions on the Massena East and Point Henry smelters were part of a 15-month review of 460 kmt of smelting capacity initiated by management in May 2013 for possible curtailment. Through this review, management determined that the remaining capacity of the Massena East smelter was no longer competitive and the Point Henry smelter had no prospect of becoming financially viable. Management also initiated the temporary curtailment of the remaining capacity (62 kmt-per-year) at the Poços de Caldas smelter and additional capacity (85 kmt-per-year) at the São Luís smelter, both in Brazil. These curtailments were completed by the end of May 2014. As a result of these curtailments, 200 kmt-per-year of production at the Poços de Caldas refinery was reduced by the end of June 2014.



Also in the 2014 first quarter, management approved the permanent shutdown of Alcoa's two rolling mills in Australia, Point Henry and Yennora. This decision was made due to the significant impact of excess can sheet capacity in both Australia and Asia. The two rolling mills had a combined can sheet capacity of 200 kmt-per-year and were closed at the end of 2014. Demolition and remediation activities related to the two rolling mills began in mid 2015 and are expected to be completed by the end of 2018.

In the 2014 third quarter, management approved the permanent shutdown and demolition of the capacity (150 kmt-per-year) at the Portovesme smelter in Italy, which had been idle since November 2012. This decision was made because the fundamental reasons that made the Portovesme smelter uncompetitive remain unchanged, including the lack of a viable long-term power solution. Demolition and remediation activities related to the Portovesme smelter will begin in 2016 (delayed due to discussions with the Italian government and other stakeholders) and are expected to be completed by the end of 2020.

In the 2014 third quarter and nine-month period, costs related to the shutdown and curtailment actions included \$60 and \$197, respectively, for the layoff of approximately 1,780 employees (1,200 in the Primary Metals segment, 470 in the Global Rolled Products segment, 80 in the Alumina segment, and 30 in Corporate), including \$18 in pension costs; accelerated depreciation of \$40 and \$190, respectively, related to the three facilities in Australia as they continued to operate during 2014 (the smelter operated for one month in the 2014 third quarter); asset impairments of \$74 and \$165, respectively, representing the write-off of the remaining book value of all related properties, plants, and equipment; and \$45 and \$178, respectively, in other exit costs (see below). Additionally in the third quarter and nine-month period of 2014, remaining inventories, mostly operating supplies and raw materials, were written down to their net realizable value, resulting in a charge of \$33 (\$27 after-tax and noncontrolling interest) and \$67 (\$47 after-tax and noncontrolling interest), respectively, which was recorded in COGS. The other exit costs in the 2014 third quarter and nine-month period represent \$40 and \$95, respectively, in asset retirement obligations and \$4 and \$42, respectively, in environmental remediation, both of which were triggered by the decisions to permanently shut down and demolish the aforementioned structures in the United States, Australia, and Italy, and \$1 and \$41, respectively, in other related costs, including supplier and customer contract-related costs.

Alcoa does not include Restructuring and other charges in the results of its reportable segments. The pretax impact of allocating such charges to segment results would have been as follows:

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Alumina	\$ 38	\$ 1	\$ 55	\$ 8
Primary Metals	11	193	209	608
Global Rolled Products	(17)	13	119	126
Engineered Products and Solutions	22	—	33	1
Transportation and Construction Solutions	3	—	6	3
Segment total	57	207	422	746
Corporate	9	2	38	34
Total restructuring and other charges	\$ 66	\$ 209	\$ 460	\$ 780

As of September 30, 2015, approximately 1,240 of the 1,860 employees associated with 2015 restructuring programs, approximately 2,500 of the 2,870 employees (previously 2,910 – updated to reflect employees accepting other positions within Alcoa and natural attrition) associated with 2014 restructuring programs, and approximately 1,480 of the 1,530 employees associated with 2013 restructuring programs were separated. Most of the remaining separations for the 2015 restructuring programs and all of the remaining separations for the 2014 and 2013 restructuring programs are expected to be completed by the end of 2015.

In the 2015 third quarter and nine-month period, cash payments of \$19 and \$34, respectively, were made against the layoff reserves related to the 2015 restructuring programs, \$4 and \$60, respectively, were made against the layoff reserves related to the 2014 restructuring programs, and \$1 and \$6, respectively, were made against the layoff reserves related to the 2013 restructuring programs.

Interest expense decreased \$3, or 2%, in the 2015 third quarter and increased \$18, or 5%, in the 2015 nine-month period compared to the corresponding periods in 2014.

In the 2015 third quarter, the decline was mainly due to the absence of fees paid associated with the execution and termination of a 364-day senior unsecured bridge term loan facility related to the then-planned acquisition of Firth Rixson (\$13), mostly offset by a 9% higher average debt level.

The increase in the 2015 nine-month period was principally the result of a 9% higher average debt level, somewhat offset by the absence of fees paid associated with the execution and termination of a 364-day senior unsecured bridge term loan facility related to the then-planned acquisition of Firth Rixson (\$13).

The higher average debt level in both periods was mostly attributable to higher outstanding long-term debt due to the September 2014 issuance of \$1,250 in 5.125% Notes, the proceeds of which were used to pay a portion of the purchase price of the acquisition of Firth Rixson. In the 2015 nine-month period, the impact of the aforementioned Notes issuance on the average debt level was slightly offset by the March 2014 conversion of \$575 in 5.25% Convertible Notes.

Other income, net was \$15 in the 2015 third quarter compared with Other expenses, net of \$23 in the 2014 third quarter, and Other income, net was \$27 in the 2015 nine-month period compared to Other expenses, net of \$53 in the 2014 nine-month period.

The change of \$38 in the 2015 third quarter was mainly the result of a gain on the sale of land at Alcoa's former Sherwin, TX refinery site (\$20), net favorable foreign currency movements (\$12), a higher gain on the sale of an equity investment in a China rolling mill (\$5 – portions of this investment were sold in both the 2015 and 2014 third quarters), and a favorable change in deferred compensation. These items were somewhat offset by a higher decrease in the cash surrender value of company-owned life insurance.

In the 2015 nine-month period, the change of \$80 was primarily due to a gain on the sale of land both around the Lake Charles, LA anode facility and at Alcoa's former Sherwin, TX refinery site (\$49); net favorable foreign currency movements (\$27); a favorable change in deferred compensation; a lower equity loss related to Alcoa's share of the joint venture in Saudi Arabia, mostly due to the smelter operating at full capacity since mid 2014 as well as the absence of restart costs for one of the potlines that was previously shut down due to a period of instability; and a higher gain on the sale of an equity investment in a China rolling mill (\$5 – portions of this investment were sold in both the 2015 and 2014 third quarters). These items were somewhat offset by the absence of a gain on the sale of a mining interest in Suriname (\$28) and a decrease in the cash surrender value of company-owned life insurance.

The effective tax rate for the third quarter of 2015 and 2014 was 48.5% and 60.3%, respectively.

The rate for the 2015 third quarter differs from the U.S. federal statutory rate of 35% primarily due to restructuring charges related to the curtailment of a refinery in Suriname (see Restructuring and other charges above), a portion for which no tax benefit was recognized.

The rate for the 2014 third quarter differs from the U.S. federal statutory rate of 35% primarily due to a \$56 discrete income tax charge related to a tax rate change in Brazil, restructuring charges related to operations in Italy for which no tax benefit was recognized (see Restructuring and other charges above), and an \$8 unfavorable impact related to the interim period treatment of operational losses in certain foreign jurisdictions for which no tax benefit was recognized (impact reversed by the end of 2014), slightly offset by a \$9 discrete income tax benefit for the release of a valuation allowance related to operations in Germany due to the initiation of a tax planning strategy.

The effective tax rate for the 2015 and 2014 nine-month periods was 41.4% and 76.0%, respectively.

The rate for the 2015 nine-month period differs from the U.S. federal statutory rate of 35% primarily due to a loss on the sale of a rolling mill in Russia (see Global Rolled Products in Segment Information below) for which no tax benefit was recognized, a \$34 net discrete income tax charge as described below, and restructuring charges related to the curtailment of a refinery in Suriname (see Restructuring and other charges above), a portion for which no tax benefit was recognized. These items were partially offset by foreign income taxed in lower rate jurisdictions.

In the first quarter of 2015, Alcoa World Alumina and Chemicals (AWAC), a joint venture owned 60% by Alcoa and 40% by Alumina Limited (Alcoa consolidates AWAC for financial reporting purposes), recognized an \$83 discrete income tax charge (increased to \$85 in the 2015 second quarter) for a valuation allowance on certain deferred tax assets, which were related mostly to employee benefits and tax loss carryforwards. Alcoa also had a \$50 deferred tax liability (increased to \$51 in the 2015 second quarter) related to its 60%-share of these deferred tax assets that was written off as a result of the valuation allowance recognized by AWAC.

The rate for the 2014 nine-month period differs from the U.S. federal statutory rate of 35% primarily due to the previously mentioned \$56 discrete income tax charge and a \$44 unfavorable impact related to the interim period treatment of operational losses in certain foreign jurisdictions for which no tax benefit was recognized (impact reversed by the end of 2014).

Net income attributable to noncontrolling interests was \$62 in the 2015 third quarter and \$189 in the 2015 nine-month period compared with Net loss attributable to noncontrolling interests of \$18 in the 2014 third quarter and \$46 in the 2014 nine-month period. These amounts were virtually all related to Alumina Limited's 40% ownership interest in AWAC. In the 2015 third quarter and nine-month period, AWAC generated income compared to a loss in the same periods in 2014.

In the 2015 third quarter, the change in AWAC's results was mainly driven by improved operating results (see below), the absence of restructuring charges related to the permanent closure of the Point Henry smelter (see Restructuring and other charges above), and the absence of a \$56 (\$22 was noncontrolling interest's share) discrete income tax charge related to a tax rate change in Brazil (see Income taxes above), slightly offset by restructuring charges related to both the curtailment of the refinery in Suriname and the permanent closure of the Anglesea power station and coal mine (see Restructuring and other charges above).

The change in AWAC's results in the 2015 nine-month period was principally related to improved operating results (see below), the absence of restructuring charges related to the permanent closure of the Point Henry smelter (see Restructuring and other charges above), and the absence of the previously mentioned \$56 (\$22 was noncontrolling interest's share) discrete income tax charge, somewhat offset by restructuring charges related to both the curtailment of the refinery in Suriname and the permanent closure of the Anglesea power station and coal mine (see Restructuring and other charges above), an \$85 (\$34 was noncontrolling interest's share) discrete income tax charge for a valuation allowance on certain deferred tax assets (see Income taxes above), and the absence of a \$28 gain (\$11 was noncontrolling interest's share) on the sale of a mining interest in Suriname.

The improvement in AWAC's operating results in both periods was largely due to net favorable foreign currency movements, lower energy costs, and net productivity improvements (see Alumina in Segment Information below).

### **Segment Information**

In the third quarter of 2015, management approved a realignment of Alcoa's Engineered Products and Solutions segment due to the expansion of this part of Alcoa's business portfolio through both organic and inorganic growth. This realignment consisted of moving both the Alcoa Wheel and Transportation Products and Building and Construction Systems business units to a new reportable segment named Transportation and Construction Solutions. Additionally, the Latin American soft alloy extrusions business previously included in Corporate was moved into the new Transportation and Construction Solutions segment. The remaining Engineered Products and Solutions segment consists of the Alcoa Fastening Systems and Rings (renamed to include portions of the Firth Rixson business acquired in November 2014), Alcoa Power and Propulsion (includes the TITAL business acquired in March 2015), Alcoa Forgings and Extrusions (includes the other portions of Firth Rixson), and Alcoa Titanium and Engineered Products (a new business unit that represents the RTI International Metals business acquired in July 2015) business units. Segment information for all prior periods presented was updated to reflect the new segment structure.

Effective in the second quarter of 2015, management removed the impact of metal price lag from the results of the Global Rolled Products and Engineered Products and Solutions (now Engineered Products and Solutions and Transportation and Construction Solutions – see above) segments in order to enhance the visibility of the underlying operating performance of these businesses. Metal price lag describes the timing difference created when the average price of metal sold differs from the average cost of the metal when purchased by the respective segment. In general, when the price of metal increases, metal price lag is favorable, and when the price of metal decreases, metal price lag is unfavorable. The impact of metal price lag is now reported as a separate line item in Alcoa's reconciliation of total segment ATOI to consolidated net income attributable to Alcoa. As a result, this change does not impact the consolidated results of Alcoa. Segment information for all prior periods presented was updated to reflect this change.

## Alumina

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Alumina production (kmt)	3,954	4,196	11,864	12,445
Third-party alumina shipments (kmt)	2,798	2,714	8,042	7,724
Alcoa's average realized price per metric ton of alumina	\$ 323	\$ 320	\$ 335	\$ 317
Alcoa's average cost per metric ton of alumina*	\$ 233	\$ 289	\$ 243	\$ 286
Third-party sales	\$ 912	\$ 886	\$ 2,723	\$ 2,492
Intersegment sales	391	482	1,323	1,472
Total sales	\$ 1,303	\$ 1,368	\$ 4,046	\$ 3,964
ATOI	\$ 212	\$ 62	\$ 648	\$ 192

\* Includes all production-related costs, including raw materials consumed; conversion costs, such as labor, materials, and utilities; depreciation, depletion, and amortization; and plant administrative expenses.

Alumina production decreased 6% in the 2015 third quarter and 5% in the 2015 nine-month period compared with the corresponding periods in 2014.

In the 2015 third quarter, the decline was largely attributable to the absence of production at the refinery in Jamaica and lower production at the refinery in Suriname (see below).

The decrease in the 2015 nine-month period was mostly caused by the absence of production at the refinery in Jamaica and lower production at the Suriname and Poços de Caldas (Brazil) refineries, somewhat offset by higher production at the San Ciprian (Spain) and Point Comfort (Texas) refineries.

In December 2014, AWAC sold its 55% ownership interest in Jamalco, a bauxite mine and alumina refinery joint venture in Jamaica (AWAC's share of the refinery capacity was 779 kmt-per-year).

In March 2015, management initiated a 12-month review of 2,800 kmt in refining capacity for possible curtailment (partial or full), permanent closure or divestiture. This review is part of management's target to lower Alcoa's refining operations on the global alumina cost curve to the 21st percentile (currently 23rd) by 2016. As part of this review, in March 2015, management decided to curtail 443 kmt-per-year (one digester) of capacity at the Suralco (Suriname) refinery; this action was completed by the end of April 2015. Additionally, in September 2015, management further decided to curtail the remaining capacity (887 kmt-per-year – two digesters) at Suralco by November 30, 2015. Suralco has nameplate capacity of 2,207 kmt-per-year, of which 1,320 kmt was idle and the remaining 887 kmt was operating at approximately 90% as of September 30, 2015. Management is currently in discussions with the Suriname government to determine the best long-term solution for Suralco due to limited bauxite reserves and the absence of a long-term energy alternative. See Restructuring and other charges in Results of Operations above.

Third-party sales for the Alumina segment improved 3% and 9% in the 2015 third quarter and nine-month period, respectively, compared to the same periods in 2014. The increase in both periods was primarily due to a 3% (third quarter) and 4% (nine months) improvement in volume and a 1% (third quarter) and 6% (nine months) increase in average realized price. Favorable foreign currency movements related to the revaluation of outstanding customer receivables in Australia also contributed to the improvement in the 2015 nine-month period.

In both periods, the change in average realized price was mostly driven by a higher percentage of shipments linked to an alumina index/spot price instead of an LME-based price. The positive impact in the 2015 third quarter was mostly offset by a decrease in both the average alumina index/spot price and average LME-based price. In the 2015 nine-month period, an increase in the average alumina index/spot price also contributed favorably to the higher average realized price, partially offset by a decrease in the average LME-based price.

Intersegment sales decreased 19% in the 2015 third quarter and 10% in the 2015 nine-month period compared with the corresponding periods in 2014 due to lower demand from the Primary Metals segment. In the 2015 nine-month period, the lower demand was somewhat offset by a higher average realized price.

The lower demand in the 2015 third quarter was driven by the absence of shipments to two smelters, one of which was divested in the 2014 fourth quarter and the other was fully curtailed in the 2015 second quarter, and in the 2015 nine-month period was caused by the absence of shipments to four smelters and lower shipments to one smelter that were permanently closed, curtailed or divested in 2014 and/or 2015 (see Primary Metals below).

ATOI for this segment increased \$150 and \$456 in the 2015 third quarter and nine-month period, respectively, compared to the same periods in 2014.

In the 2015 third quarter, the improvement was principally driven by net favorable foreign currency movements due to a stronger U.S. dollar, especially against the Australian dollar and Brazilian real, lower energy costs (natural gas and fuel oil), and net productivity improvements.

The increase in the 2015 nine-month period was mostly related to net favorable foreign currency movements due to a stronger U.S. dollar, especially against the Australian dollar and Brazilian real, the previously mentioned higher average realized alumina price, lower energy costs (natural gas and fuel oil), and net productivity improvements. These positive impacts were slightly offset by the absence of a gain on the sale of a mining interest in Suriname (\$18).

In the 2015 fourth quarter (comparison with the 2014 fourth quarter), alumina production will be approximately 330 kmt lower as a result of the divestiture of an ownership interest in Jamaica and the curtailment of the refinery in Suriname. Also, net productivity improvements are anticipated and lower energy costs are expected in Spain due to the conversion of the fuel source at the refinery from fuel oil to natural gas. Additionally, the refinery in Saudi Arabia is expected to produce approximately 390 kmt (approximately 100 kmt is AWAC's share) of alumina.

## Primary Metals

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Aluminum production (kmt)	700	760	2,112	2,394
Third-party aluminum shipments (kmt)	615	642	1,834	1,897
Alcoa's average realized price per metric ton of aluminum*	\$ 1,901	\$ 2,538	\$2,163	\$2,345
Alcoa's average cost per metric ton of aluminum**	\$ 1,999	\$ 2,298	\$2,128	\$2,229
Third-party sales	\$ 1,249	\$ 1,865	\$4,355	\$4,948
Intersegment sales	479	730	1,733	2,182
Total sales	<u>\$ 1,728</u>	<u>\$ 2,595</u>	<u>\$6,088</u>	<u>\$7,130</u>
ATOI	\$ (59)	\$ 245	\$ 195	\$ 327

\* Average realized price per metric ton of aluminum includes three elements: a) the underlying base metal component, based on quoted prices from the LME; b) the regional premium, which represents the incremental price over the base LME component that is associated with the physical delivery of metal to a particular region (e.g., the Midwest premium for metal sold in the United States); and c) the product premium, which represents the incremental price for receiving physical metal in a particular shape (e.g., billet, slab, rod, etc.) or alloy.

\*\* Includes all production-related costs, including raw materials consumed; conversion costs, such as labor, materials, and utilities; depreciation and amortization; and plant administrative expenses.

At September 30, 2015, Alcoa had 635 kmt of idle capacity on a base capacity of 3,401 kmt. Both idle capacity and base capacity were unchanged compared to June 30, 2015.

In March 2015, management initiated a 12-month review of 500 kmt in smelting capacity for possible curtailment (partial or full), permanent closure or divestiture. This review is part of management's target to lower Alcoa's smelting operations on the global aluminum cost curve to the 38th percentile (currently 43rd) by 2016. As part of this review, in March 2015, management decided to curtail the remaining capacity (74 kmt-per-year) at the São Luís smelter in Brazil; this action was completed in April 2015. In 2013 and 2014 combined, Alcoa curtailed capacity of 194 kmt-per-year at the São Luís smelter under a prior management review. See Restructuring and other charges in Results of Operations above.

Separate from the smelting capacity review described above, in June 2015, management decided to permanently close the Poços de Caldas smelter (96 kmt-per-year) in Brazil effective immediately. The Poços de Caldas smelter had been temporarily idle since May 2014 due to challenging global market conditions for primary aluminum and higher operating costs, which made the smelter uncompetitive. The decision to permanently close the Poços de Caldas smelter was based on the fact that these underlying conditions have not improved. See Restructuring and other charges in Results of Operations above.

Aluminum production decreased 8% and 12% in the 2015 third quarter and nine-month period, respectively, compared with the corresponding periods in 2014. The decline in the 2015 third quarter was the result of the absence of production at one smelter each in Australia, Brazil, and the United States. In the 2015 nine-month period, the decrease was due to the absence of production at two smelters in the United States and one smelter each in Australia and Brazil, as well as lower production at another smelter in Brazil.

As part of a prior management review of smelting capacity, in 2014, the full capacity at the Point Henry smelter (190 kmt-per-year) and the remaining capacity at the Massena East smelter (84-kmt-per-year) were permanently closed and the remaining capacity at the Poços de Caldas smelter (62 kmt-per-year) and a portion of the capacity at the São Luís smelter (97 kmt-per-year) were temporarily curtailed. Additionally, in December 2014, Alcoa sold its 50.33% ownership interest in the Mt. Holly smelter (Alcoa's share of the smelter capacity was 115 kmt-per-year). Furthermore, the remaining capacity at the São Luís smelter (74 kmt-per-year) was temporarily curtailed in April 2015 (see above).

Third-party sales for the Primary Metals segment decreased 33% in the 2015 third quarter and 12% in the 2015 nine-month period compared to the same periods in 2014.

The drop in the 2015 third quarter was mostly the result of a 25% decrease in average realized price, the absence of sales (approximately \$140) from four smelters and a rod mill that were closed, curtailed or sold in 2014, and lower energy sales in Brazil due to both a weaker Brazilian real and a decline in energy prices. These negative impacts were slightly offset by higher volume in the remaining smelter portfolio. The change in average realized price was driven by a 19% lower average LME price (on 15-day lag) and lower regional premiums, which dropped by an average of 62% in the United States and Canada and 66% in Europe.

In the 2015 nine-month period the decline was mainly attributable to the absence of sales (approximately \$470) from the five smelters and rod mill that were closed, curtailed or sold in 2014, an 8% decrease in average realized price, and lower energy sales in Brazil due to both a weaker Brazilian real and a decline in energy prices. These negative impacts were somewhat offset by higher volume in the remaining smelter portfolio and higher buy/resell activity. The change in average realized price was driven by lower regional premiums, which dropped by an average of 28% in the United States and Canada and 33% in Europe, and a 5% lower average LME price (on 15-day lag). The higher buy/resell activity was primarily related to the fulfillment of customer orders with aluminum purchased from the smelter at the Saudi Arabia joint venture.

Intersegment sales declined 34% and 21% in the 2015 third quarter and nine-month period, respectively, compared with the corresponding periods in 2014 due to lower demand from the midstream business, driven by the absence of shipments to four of the five rolling mills (the fifth mill purchased scrap metal from third-parties) that were either divested or permanently closed in December 2014 (see Global Rolled Products below). In the 2015 third quarter, a decrease in average realized price also contributed to the decline.

ATOI for this segment decreased \$304 in the 2015 third quarter and \$132 in the 2015 nine-month period compared to the same periods in 2014. The decline in both periods was primarily driven by both the previously mentioned lower average realized aluminum price and lower energy sales and higher costs for alumina and energy (mostly in Spain as the 2014 interruptibility rights were more favorable than the 2015 structure). These negative impacts were somewhat offset in the 2015 third quarter and partially offset in the 2015 nine-month period by net favorable foreign currency movements due to a stronger U.S. dollar, particularly against the euro and Norwegian kroner, net productivity improvements, and the absence of a write-off of inventory related to the permanent closure of the Portovesme, Point Henry, and/or Massena East smelters (\$30-third quarter and \$44-nine months). Also in the 2015 nine-month period, an unfavorable impact related to the curtailment of the São Luís smelter was offset by a lower equity loss related to the joint venture in Saudi Arabia, including the absence of restart costs for one of the potlines that was previously shut down due to a period of instability.

In the 2015 fourth quarter (comparison with the 2014 fourth quarter), aluminum production will be approximately 40 kmt lower and Third-party sales will reflect the absence of approximately \$120 both as a result of 2014 and 2015 divestiture and/or curtailment actions of two smelters and a rod mill. Also, this segment's average realized price will be negatively impacted as a result of both lower LME pricing and regional premiums. Additionally, the smelter in Saudi Arabia is expected to provide a positive contribution to ATOI and net productivity improvements are anticipated.

## Global Rolled Products

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Third-party aluminum shipments (kmt)	449	506	1,343	1,477
Alcoa's average realized price per metric ton of aluminum	\$ 3,399	\$ 3,804	\$3,585	\$3,697
Third-party sales	\$ 1,527	\$ 1,926	\$4,816	\$5,463
Intersegment sales	29	52	99	139
Total sales	\$ 1,556	\$ 1,978	\$4,915	\$5,602
ATOI	\$ 62	\$ 69	\$ 192	\$ 193

In March 2015, Alcoa completed the sale of a rolling mill located in Belaya Kalitva, Russia to a wholly-owned subsidiary of Stupino Titanium Company. While owned by Alcoa, the operating results and assets and liabilities of the rolling mill were included in the Global Rolled Products segment. The rolling mill generated sales of approximately \$130 in 2014 and, at the time of divestiture, had approximately 1,870 employees. See Restructuring and other charges in Results of Operations above.

Third-party sales for the Global Rolled Products segment decreased 21% and 12% in the 2015 third quarter and nine-month period, respectively, compared with the corresponding periods in 2014. In both periods, the decline was mainly caused by the absence of sales (\$271-third quarter and \$777-nine months) from six rolling mills in Australia, Spain, Russia, and France (see below); unfavorable pricing, mostly due to a decrease in metal prices (both LME and regional premium components); and unfavorable foreign currency movements, primarily due to a weaker euro, Russian ruble and Brazilian real. These negative impacts were partially offset by increased demand of the remaining rolling portfolio and favorable product mix (automotive and aerospace versus industrial products).

In December 2014, Alcoa permanently closed the Point Henry and Yennora rolling mills and sold the Alicante, Amorebieta, and Castelsarrasin rolling mills. Additionally, in March 2015, Alcoa sold the Belaya Kalitva rolling mill (see above). The volume improvement of the remaining rolling portfolio in both periods was principally driven by the automotive (North America) and can sheet packaging (China) end markets, somewhat offset by lower demand in the industrial products end market.

ATOI for this segment decreased \$7 in the 2015 third quarter and \$1 in the 2015 nine-month period compared to the same periods in 2014. The decline in both periods was principally due to higher costs related to growth projects, including the ramp-up of the Tennessee automotive expansion and research and development as Alcoa develops and qualifies products from a new Micromill™ production process; net unfavorable foreign currency movements, principally related to a weaker Russian ruble; unfavorable price/product mix (see below); and the absence of ATOI related to the previously mentioned rolling mill closures and divestitures. These negative impacts were virtually offset by higher volumes of the remaining rolling portfolio, primarily driven by demand in the automotive end market, and net productivity improvements across most businesses. Additionally in the 2015 nine-month period, higher labor costs were offset by the absence of a write-off of inventory related to the permanent closure of the Point Henry and Yennora rolling mills (\$9). The unfavorable price/product mix in both periods was largely attributable to overall pricing pressure in the global can sheet packaging end market, as well as, in the 2015 nine-month period, the inability to pass-through the cost of metal premiums to can sheet packaging customers in Russia.

In the 2015 fourth quarter (comparison with the 2014 fourth quarter), demand in the automotive end market is expected to remain strong and the automotive expansion at the Davenport, IA facility will continue to operate at full capacity (ramp-up was completed at the end of March 2015), which serves the growing demand for aluminum-intensive vehicles. Also, Third-party sales will reflect the absence of approximately \$275 due to the 2015 and 2014 divestiture and/or closure of six rolling mills. Additionally, pricing pressure due to oversupply in the global can sheet packaging end market and the inability to pass through metal premiums in the Russia can sheet packaging end market are expected to continue. Furthermore, net productivity improvements are anticipated while costs to ramp-up the completed Tennessee automotive expansion and the previously-idled casthouse in Texarkana (Texas) are expected.

## Engineered Products and Solutions

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Third-party sales	\$ 1,397	\$ 1,034	\$3,933	\$3,103
ATOI	\$ 151	\$ 155	\$ 472	\$ 455

In March 2015, Alcoa completed the acquisition of an aerospace structural castings company, TITAL, a privately held company with approximately 650 employees based in Germany. TITAL produces aluminum and titanium investment casting products for the aerospace and defense end markets. In 2014, TITAL generated sales of approximately \$100. The purpose of this acquisition is to capture increasing demand for advanced jet engine components made of titanium, establish titanium-casting capabilities in Europe, and expand existing aluminum casting capacity. The assets and liabilities of this business were included within Alcoa's Engineered Products and Solutions segment since the date of acquisition.

Also in March 2015, Alcoa signed a definitive agreement to acquire RTI International Metals, Inc. (RTI), a global supplier of titanium and specialty metal products and services for the commercial aerospace, defense, energy, and medical device end markets. On July 23, 2015, after satisfying all customary closing conditions and receiving the required regulatory and RTI shareholder approvals, Alcoa completed the acquisition of RTI. The purpose of this acquisition is to expand Alcoa's range of titanium offerings and add advanced technologies and materials, primarily related to the aerospace end market. In 2014, RTI generated net sales of \$794 and had approximately 2,600 employees. Alcoa estimates that RTI will generate approximately \$1,200 in sales by 2019. In executing its integration plan, Alcoa expects to realize annual cost savings of approximately \$100 by 2019 due to synergies derived from procurement and productivity improvements, leveraging Alcoa's global shared services, and driving profitable growth. The operating results and assets and liabilities of RTI were included within the Engineered Products and Solutions segment since the date of acquisition. Third-party sales and ATOI of RTI from the acquisition date through September 30, 2015 were \$127 and \$(7), respectively.

Third-party sales for the Engineered Products and Solutions segment increased 35% and 27% in the 2015 third quarter and nine-month period, respectively, compared with the corresponding periods in 2014. The improvement in both periods was mostly due to the third-party sales (\$386-third quarter and \$887-nine months) of three businesses (Firth Rixson, TITAL, and RTI), primarily aerospace-related, that were acquired in November 2014, March 2015 (see above), and July 2015 (see above), respectively, and higher volumes in this segment's organic businesses, largely attributable to the aerospace (commercial) end market. These positive impacts were slightly offset by unfavorable foreign currency movements, principally due to a weaker euro.

ATOI for this segment decreased \$4 in the 2015 third quarter and improved \$17 in the 2015 nine-month period compared to the same periods in 2014.

In the 2015 third quarter, the decline was principally the result of unfavorable price/product mix and higher costs related to growth projects, mostly offset by net productivity improvements across all businesses and a positive contribution from inorganic growth.

The increase in the 2015 nine-month period was mainly the result of net productivity improvements across all businesses, a positive contribution from inorganic growth, and overall higher volumes in this segment's organic businesses. These positive impacts were mostly offset by unfavorable price/product mix, higher costs related to growth projects, and net unfavorable foreign currency movements, primarily related to the euro.

In the 2015 fourth quarter (comparison with the 2014 fourth quarter), the commercial aerospace end market is expected to remain strong, driven by significant order backlog. Also, Third-party sales will include a positive impact due to the addition of sales related to the acquisitions of Firth Rixson, TITAL, and RTI. Additionally, net productivity improvements are anticipated while pricing pressure across all markets is expected.



## Transportation and Construction Solutions

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Third-party sales	\$ 475	\$ 523	\$1,438	\$1,521
ATOI	\$ 44	\$ 50	\$ 126	\$ 142

Third-party sales for the Transportation and Construction Solutions segment decreased 9% and 5% in the 2015 third quarter and nine-month period, respectively, compared with the corresponding periods in 2014. The decline in both periods was mostly due to unfavorable foreign currency movements, principally caused by a weaker euro and Brazilian real. In the 2015 nine-month period, this negative impact was somewhat offset by higher volume related to the commercial transportation end market.

ATOI for this segment decreased \$6 in the 2015 third quarter and \$16 in the 2015 nine-month period compared to the same periods in 2014. In both periods, the decline was principally the result of higher costs and net unfavorable foreign currency movements, primarily related to a weaker euro and Brazilian real, as well as, in the 2015 nine-month period, unfavorable price/product mix. These negative impacts were mostly offset in the 2015 third quarter and partially offset in the 2015 nine-month period by net productivity improvements across all businesses.

In the 2015 fourth quarter (comparison with the 2014 fourth quarter), the non-residential building and construction end market is expected to improve through growth in North America but will be somewhat offset by overall weakness in Europe. Also, North America build rates in the commercial transportation end market are expected to decline slightly while declines in China will persist as demand continues to normalize following the adoption of new regulatory standards. Additionally, net productivity improvements are anticipated.

### Reconciliation of ATOI to Consolidated Net Income Attributable to Alcoa

Items required to reconcile total segment ATOI to consolidated net income attributable to Alcoa include: the impact of LIFO inventory accounting and metal price lag; interest expense; noncontrolling interests; corporate expense (general administrative and selling expenses of operating the corporate headquarters and other global administrative facilities, along with depreciation and amortization on corporate-owned assets); restructuring and other charges; and other items, including intersegment profit eliminations, differences between tax rates applicable to the segments and the consolidated effective tax rate, and other nonoperating items such as foreign currency transaction gains/losses and interest income.

The following table reconciles total segment ATOI to consolidated net income attributable to Alcoa:

	Third quarter ended September 30,		Nine months ended September 30,	
	2015	2014	2015	2014
Total segment ATOI	\$ 410	\$ 581	\$1,633	\$1,309
Unallocated amounts (net of tax):				
Impact of LIFO	50	(18)	93	(33)
Metal price lag	(48)	38	(110)	56
Interest expense	(80)	(81)	(240)	(228)
Noncontrolling interests	(62)	18	(189)	46
Corporate expense	(72)	(72)	(199)	(204)
Restructuring and other charges	(48)	(189)	(368)	(587)
Other	(106)	(128)	(241)	(250)
Consolidated net income attributable to Alcoa	\$ 44	\$ 149	\$ 379	\$ 109

The significant changes in the reconciling items between total segment ATOI and consolidated net income attributable to Alcoa for the 2015 third quarter and nine-month period compared with the corresponding periods in 2014 (unless otherwise noted) consisted of:

- a change in the Impact of LIFO, mostly due to lower prices for aluminum, driven by both lower base metal prices (LME) and regional premiums (decrease in price at September 30, 2015 indexed to December 31, 2014 compared to an increase in price at September 30, 2014 indexed to December 31, 2013);

- a change in Metal price lag, the result of lower prices for aluminum;
- a decrease in Interest expense in the 2015 third quarter, mainly caused by the absence of fees paid associated with the execution and termination of a 364-day senior unsecured bridge term loan facility related to the then-planned acquisition of Firth Rixson (\$8), mostly offset by a 9% higher average debt level, and an increase in Interest expense in the 2015 nine-month period, primarily due to 9% higher average debt level, somewhat offset by the absence of fees paid associated with the execution and termination of a 364-day senior unsecured bridge term loan facility related to the then-planned acquisition of Firth Rixson (\$8);
- a change in Noncontrolling interests, due to the change in the results of AWAC, in the 2015 third quarter, principally driven by improved operating results and the absence of a \$56 (\$22 was noncontrolling interest's share) discrete income tax charge related to a tax rate change in Brazil, and in the 2015 nine-month period, largely due to improved operating results, the absence of restructuring charges related to the permanent closure of the Point Henry smelter, and the absence of the previously mentioned \$56 (\$22 was noncontrolling interest's share) discrete income tax charge, somewhat offset by restructuring charges related to both the curtailment of the refinery in Suriname and the permanent closure of the Anglesea power station and coal mine, an \$85 (\$34 was noncontrolling interest's share) discrete income tax charge for a valuation allowance on certain deferred tax assets, and the absence of a \$22 gain (\$11 was noncontrolling interest's share) on the sale of a mining interest in Suriname;
- a decrease in Restructuring and other charges, in the 2015 third quarter, primarily attributable to lower charges due to fewer portfolio actions; and
- a change in Other, largely the result of the absence of a discrete income tax charge related to a tax rate change in Brazil (\$56 in both periods), a favorable tax impact related to the interim period treatment of losses in certain foreign jurisdictions for which no tax benefit was recognized (\$24-third quarter and \$46-nine months), higher gains on various asset sales (\$16-third quarter and \$35-nine months), and net favorable foreign currency movements, partially offset in the 2015 third quarter and mostly offset in the 2015 nine-month period by an unfavorable tax impact resulting from the difference between Alcoa's consolidated estimated annual effective tax rate and the tax rates applicable to the segments, a net discrete income tax charge for a valuation allowance on certain deferred tax assets (\$34 nine months only), a write-down of inventory related to a refinery in Suriname (\$24 in both periods), and charges for an environmental matter in both Norway and Italy (\$15 nine months only).

### **Environmental Matters**

See the Environmental Matters section of Note G to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

### **Liquidity and Capital Resources**

#### **Cash From Operations**

Cash provided from operations was \$717 in the 2015 nine-month period compared with \$216 in the same period of 2014. The improvement in cash from operations of \$501 was principally due to a positive change associated with working capital of \$831, lower pension contributions of \$83, and higher operating results (net income plus net add-back for noncash transactions in earnings), partially offset by a negative change in noncurrent assets of \$353 and in noncurrent liabilities of \$89.

The components of the positive change in working capital were as follows:

- a favorable change of \$568 in receivables, primarily due to lower customer sales as a result of closed, divested, and curtailed locations and lower metal prices;
- a positive change of \$309 in inventories, largely attributable to the absence of inventory build related to the ramp-up of automotive production at the Davenport, IA plant and customer requirements related to smelters curtailed or shut down, both of which occurred in the 2014 nine-month period;
- a favorable change of \$59 in prepaid expenses and other current assets;
- a negative change of \$323 in accounts payable, trade, principally the result of timing of payments;
- a positive change of \$32 in accrued expenses; and
- a favorable change of \$186 in taxes, including income taxes, mostly driven by higher pretax income.

The lower pension contributions were principally driven by special termination benefits of \$86 paid in the 2014 nine-month period to employees affected by the 2013 shutdown of capacity at a smelter in Canada.

The unfavorable change in noncurrent assets was mostly related to a \$300 prepayment made under a natural gas supply agreement in Australia (see below).

On April 8, 2015, Alcoa's majority-owned subsidiary, Alcoa of Australia Limited (AofA), which is part of AWAC, secured a new 12-year gas supply agreement to power its three alumina refineries in Western Australia beginning in July 2020. This agreement was conditional on the completion of a third-party acquisition of the related energy assets from the current owner, which occurred in the 2015 second quarter. The terms of AofA's gas supply agreement require a prepayment of \$500 to be made in two installments. The first installment of \$300 was made at the time of the completion of the third-party acquisition in June 2015 and the second installment of \$200 will be made in January 2016.

## Financing Activities

Cash used for financing activities was \$211 in the 2015 nine-month period, a decrease of \$2,642 compared with cash provided from financing activities of \$2,431 in the corresponding period of 2014.

The use of cash in the 2015 nine-month period was primarily due to \$1,551 in payments on debt, mostly related to the repayment of borrowings under certain revolving credit facilities (see below), \$149 in dividends paid to shareholders, and \$72 in cash paid to the noncontrolling interest in AWAC, Alumina Limited. These items were mostly offset by \$1,534 in additions to debt, virtually all of which was the result of borrowings under certain revolving credit facilities (see below).

In the 2014 nine-month period, the source of cash was primarily due to \$2,881 in additions to debt, virtually all of which was the result of \$1,238 in net proceeds from the issuance of new senior debt securities to be used for the then-planned acquisition of Firth Rixson and \$1,640 in borrowings under certain revolving credit facilities, net proceeds of \$1,213 from the issuance of mandatory convertible preferred stock related to the aforementioned acquisition, and \$128 in proceeds from employee exercises of 14.8 million stock options at a weighted average exercise price of \$8.69 (not in millions). These items were somewhat offset by \$1,717 in payments on debt, mostly related to \$1,640 for the repayment of borrowings under certain revolving credit facilities, and \$105 in dividends paid to shareholders.

In July 2015, Alcoa issued 87 million shares of its common stock to acquire RTI (see Engineered Products and Solutions in Segment Information above). This transaction was not reflected in Alcoa's Statement of Consolidated Cash Flows as it represents a noncash financing activity. Additionally, through this acquisition, Alcoa assumed the obligation to repay two tranches of convertible debt; one tranche is due on December 1, 2015 (principal amount of \$115) and the other tranche is due in 2019 (principal amount of \$403). Alcoa may elect to settle these convertible notes either in cash or shares of common stock (up to 37,009,898 shares combined).

Alcoa maintains a Five-Year Revolving Credit Agreement, dated July 25, 2014, (the "Credit Agreement") with a syndicate of lenders and issuers named therein. The Credit Agreement provides a \$4,000 senior unsecured revolving credit facility (the "Credit Facility"), the proceeds of which are to be used to provide working capital or for other general corporate purposes of Alcoa. The Credit Facility was scheduled to mature on July 25, 2019; however, on July 7, 2015, Alcoa received approval for a one-year extension of the maturity date by the lenders and issuers that support the Credit Facility. As such, the Credit Facility now matures on July 25, 2020, unless extended or earlier terminated in accordance with the provisions of the Credit Agreement. Alcoa may make one additional one-year extension request during the remaining term of the Credit Facility, subject to the lender consent requirements set forth in the Credit Agreement.

At the end of 2014, Alcoa had ten revolving credit facilities (excluding the Credit Facility above), each with a different financial institution, providing a combined capacity of \$1,040 and expiration dates ranging from March 2015 through September 2016. A credit facility (\$150 capacity) that was due to expire in March 2015 was extended to March 2016 in the first quarter of 2015. Additionally, in the 2015 third quarter, a credit facility (\$100 capacity) expired without renewal while a different credit facility (\$100 capacity) that was due to expire in September 2015 was extended for one year. At September 30, 2015, the nine active revolving credit facilities provide a combined capacity of \$940.

The purpose of any borrowings under these credit arrangements is to provide for working capital requirements and for other general corporate purposes. The covenants contained in all these arrangements are the same as the Credit Agreement (see the Financing Activities section of Liquidity and Capital Resources included in Management's Discussion and Analysis of Financial Condition and Results of Operations in Alcoa's 2014 Form 10-K).

Within each of the first, second, and third quarters of 2015, Alcoa borrowed and repaid \$510 under these credit arrangements. The weighted-average interest rate and weighted-average days outstanding of the respective borrowings during the first, second, and third quarters of 2015 were 1.57%, 1.58%, and 1.58%, respectively, and 69 days, 76 days, and 62 days, respectively.

Alcoa's cost of borrowing and ability to access the capital markets are affected not only by market conditions but also by the short- and long-term debt ratings assigned to Alcoa's debt by the major credit rating agencies.

On March 9, 2015, Standard and Poor's Ratings Services (S&P) affirmed the following ratings for Alcoa: long-term debt at BBB- and short-term debt at A-3. Additionally, S&P changed the current outlook from negative to stable. On September 28, 2015, S&P issued a statement that these ratings and outlook for Alcoa were not affected by Alcoa's plan to separate into two publicly-traded companies.

On April 16, 2015, Fitch Ratings (Fitch) affirmed the following ratings for Alcoa: long-term debt at BB+ and short-term debt at B. Additionally, Fitch changed the current outlook from stable to positive. On September 30, 2015, Fitch placed these ratings on "ratings watch positive" based on Alcoa's plan to separate into two publicly-traded companies.

On April 30, 2015, Moody's Investors Service (Moody's) affirmed the following ratings for Alcoa: long-term debt at Ba1 and short-term debt at Speculative Grade Liquidity Rating-1. Additionally, Moody's changed the current outlook from stable to positive. On September 28, 2015, Moody's affirmed these ratings and changed the current outlook from positive to developing based on Alcoa's plan to separate into two publicly-traded companies.

### **Investing Activities**

Cash used for investing activities was \$603 in the 2015 nine-month period compared with \$807 in the 2014 nine-month period, resulting in a decrease in cash used of \$204.

In the 2015 nine-month period, the use of cash was mainly due to \$782 in capital expenditures, 41% of which related to growth projects, including the aerospace expansion at the La Porte, IN plant, the automotive expansion at the Alcoa, TN plant, the aerospace expansion (thick plate stretcher) at the Davenport, IA plant, the aerospace expansion (isothermal press) at the Savannah, GA plant (Firth Rixson), and the specialty foil expansion at the Itapissuma plant in Brazil; and \$205 (net of cash acquired) for the acquisition of TITAL (see Engineered Products and Solutions in Segment Information above). These items were slightly offset by \$302 in cash acquired with RTI International Metals (see Engineered Products and Solutions in Segment Information above) and \$112 in proceeds from the sale of assets and businesses, composed of three land sales in Australia and the United States combined and post-closing adjustments related to an ownership stake in a smelter, four rolling mills, and an ownership stake in a bauxite mine/alumina refinery divested from December 2014 through March 2015.

The use of cash in the 2014 nine-month period was mainly due to \$750 in capital expenditures, 43% of which related to growth projects, including the automotive expansions at the Alcoa, TN and Davenport, IA fabrication plants, the aluminum-lithium capacity expansion at the Lafayette, IN plant, and the aerospace expansion at the La Porte, IN plant; and \$137 in additions to investments, including equity contributions of \$87 related to the aluminum complex joint venture in Saudi Arabia and the purchase of \$29 in equities and fixed income securities held by Alcoa's captive insurance company. These items were slightly offset by \$49 in sales of investments, mostly related to \$42 in combined proceeds from the sale of a mining interest in Suriname and an equity investment in a China rolling mill.

### **Recently Adopted and Recently Issued Accounting Guidance**

See Note B to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

## Forward-Looking Statements

This report 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,” “intends,” “may,” “outlook,” “plans,” “projects,” “seeks,” “sees,” “should,” “targets,” “will,” 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, and business and financial prospects, and the acceleration of Alcoa’s portfolio transformation; and statements regarding the separation transaction, including the future performance of the two independent companies if the separation is completed, the expected benefits of the separation, the expected timing of completion of the separation, and the expected qualification of the separation as a tax-free transaction. These statements reflect beliefs and assumptions that are based on Alcoa’s perception of historical trends, current conditions and expected future developments, as well as other factors management believes are appropriate in the circumstances. Forward-looking statements are subject to a number of risks, uncertainties and other factors, and are not guarantees of future performance. Important factors that could cause actual results to differ materially from those expressed or implied in the forward-looking statements include: (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) failure of the separation to qualify for the expected tax treatment; (d) the possibility that any third-party consents required in connection with the separation will not be received; (e) the impact of the separation on the businesses of Alcoa; (f) 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; (g) material adverse changes in aluminum industry conditions; (h) deterioration in global economic and financial market conditions generally; (i) unfavorable changes in the markets served by Alcoa; (j) the impact of changes in foreign currency exchange rates on costs and results; (k) increases in energy costs; (l) 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 (including moving its alumina refining and aluminum smelting businesses down on the industry cost curves and increasing revenues and improving margins in its Global Rolled Products, Engineered Products and Solutions, and Transportation and Construction Solutions segments) 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; (m) 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 international joint ventures; (n) political, economic, and regulatory risks in the countries in which Alcoa operates or sells products; (o) the outcome of contingencies, including legal proceedings, government or regulatory investigations, and environmental remediation; (p) the impact of cyber attacks and potential information technology or data security breaches; (q) the potential failure to retain key employees while the separation transaction is pending or after it is completed; (r) the risk that increased debt levels, deterioration in debt protection metrics, contraction in liquidity, or other factors could adversely affect the targeted credit ratings for the two proposed independent companies; and (s) the other risk factors summarized in Alcoa’s Form 10-K, including under Part I, Item 1A, for the year ended December 31, 2014 and the following sections of this report: Note G and the Derivatives section of Note N to the Consolidated Financial Statements; and the discussion included above under Segment Information. Alcoa disclaims any intention or obligation to update publicly any forward-looking statements, whether in response to new information, future events, or otherwise, except as required by applicable law.

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**Item 3. Quantitative and Qualitative Disclosures about Market Risk.**

See the Derivatives section of Note N to the Consolidated Financial Statements in Part I Item 1 of this Form 10-Q.

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**Item 4. Controls and Procedures.****(a) Evaluation of Disclosure Controls and Procedures**

Alcoa's Chief Executive Officer and Chief Financial Officer have evaluated the Company's disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as of the end of the period covered by this report, and they have concluded that these controls and procedures are effective.

**(b) Changes in Internal Control over Financial Reporting**

There have been no changes in internal control over financial reporting during the third quarter of 2015, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

## PART II – OTHER INFORMATION

### Item 1. Legal Proceedings.

#### Environmental Matters

##### *St. Croix Proceedings*

*Abednego and Abraham cases.* As previously reported, on January 14, 2010, Alcoa was served with a multi-plaintiff action complaint involving several thousand individual persons claiming to be residents of St. Croix who are alleged to have suffered personal injury or property damage from Hurricane Georges or winds blowing material from the St. Croix Alumina, L.L.C. (“SCA”) facility on the island of St. Croix (U.S. Virgin Islands) since the time of the hurricane. This complaint, *Abednego, et al. v. Alcoa, et al.* was filed in the Superior Court of the Virgin Islands, St. Croix Division. Following an unsuccessful attempt by Alcoa and SCA to remove the case to federal court, the case has been lodged in the Superior Court. The complaint names as defendants the same entities that were sued in a February 1999 action arising out of the impact of Hurricane Georges on the island and added as a defendant the current owner of the alumina facility property.

Also as previously reported, on March 1, 2012, Alcoa was served with a separate multi-plaintiff action complaint involving approximately 200 individual persons alleging claims essentially identical to those set forth in the *Abednego v. Alcoa* complaint. This complaint, *Abraham, et al. v. Alcoa, et al.*, was filed on behalf of plaintiffs previously dismissed in the federal court proceeding involving the original litigation over Hurricane Georges impacts. The matter was originally filed in the Superior Court of the Virgin Islands, St. Croix Division, on March 30, 2011.

Alcoa and other defendants in the *Abraham* and *Abednego* cases filed or renewed motions to dismiss each case in March 2012 and August 2012 following service of the *Abraham* complaint on Alcoa and remand of the *Abednego* complaint to Superior Court, respectively. By order dated August 10, 2015, the Superior Court dismissed plaintiffs’ complaints without prejudice to re-file the complaints individually, rather than as a multi-plaintiff filing. The order also preserves the defendants’ grounds for dismissal if new, individual complaints are filed.

*Glencore Contractual Indemnity Claim.* On June 5, 2015, Alcoa World Alumina LLC (“AWA”) and SCA filed a complaint in Delaware Chancery Court for a declaratory judgment and injunctive relief to resolve a dispute between Alcoa and Glencore Ltd. (“Glencore”) with respect to claimed obligations under a 1995 asset purchase agreement between Alcoa and Glencore. The dispute arose from Glencore’s demand that Alcoa indemnify it for liabilities it may have to pay to Lockheed Martin (“Lockheed”) related to the St. Croix alumina refinery. Lockheed had earlier filed suit against Glencore in federal court in New York seeking indemnity for liabilities it had incurred and would incur to the U.S. Virgin Islands to remediate certain properties at the refinery property and claimed that Glencore was required by an earlier, 1989 purchase agreement to indemnify it. Glencore had demanded that Alcoa indemnify and defend it in the Lockheed case and threatened to claim over against Alcoa in the New York action despite exclusive jurisdiction for resolution of disputes under the 1995 purchase agreement being in Delaware. After Glencore conceded that it was not seeking to add Alcoa to the New York action, AWA and SCA dismissed their complaint in the Chancery Court case and on August 6, 2015 filed a complaint for declaratory judgment in Delaware Superior Court. AWA and SCA filed a motion for judgment on the pleadings on September 16, 2015. If AWA’s and SCA’s motion is granted, it will be determined that Alcoa is not liable to Glencore for any Glencore liabilities arising out of its contractual indemnity of Lockheed in the 1989 agreement. Glencore answered AWA’s and SCA’s complaint and asserted counterclaims on August 27, 2015, and on October 2, 2015 filed its own motion for judgment on the pleadings. Should Glencore’s motion for judgment be upheld, Alcoa could be required to defend against Lockheed’s claims in the action that Lockheed brought against Glencore, as to which Glencore seeks indemnification from Alcoa, estimated to be up to \$76 million, which represents the high end of the range of reasonably possible loss associated with this matter of \$0 to \$76 million. Further briefing on the motions will continue through October 23, 2015. At this time, the Company is unable to reasonably predict an outcome for this matter.



## **Other Matters**

As previously reported, on August 2, 2013, the State of North Carolina, by and through its agency, the North Carolina Department of Administration, filed a lawsuit against Alcoa Power Generating, Inc. ("APGI") in Superior Court, Wake County, North Carolina (Docket No. 13-CVS-10477). The lawsuit asserts ownership of certain submerged lands and hydropower generating structures situated at Alcoa's Yadkin Hydroelectric Project (the "Yadkin Project"), including the submerged riverbed of the Yadkin River throughout the Yadkin Project and a portion of the hydroelectric dams that Alcoa owns and operates pursuant to a license from the Federal Energy Regulatory Commission. The suit seeks declaratory relief regarding North Carolina's alleged ownership interests in the riverbed and the dams and further declaration that Alcoa has no right, license or permission from North Carolina to operate the Yadkin Project. By notice filed on September 3, 2013, Alcoa removed the matter to the U.S. District Court for the Eastern District of North Carolina (Docket No. Civil Action No. 5:13-cv-633). By motion filed September 3, 2013, the Yadkin Riverkeeper sought permission to intervene in the case. On September 25, 2013, Alcoa filed its answer in the case and also filed its opposition to the motion to intervene by the Yadkin Riverkeeper. The Court denied the State's Motion to Remand and initially permitted the Riverkeeper to intervene although the Riverkeeper has now voluntarily withdrawn as an intervening party and will participate as amicus.

On July 21, 2014, the parties each filed a motion for summary judgment. On November 20, 2014, the Court denied Alcoa's motion for summary judgment and denied in part and granted in part the State of North Carolina's motions for summary judgment. The Court held that under North Carolina law, the burden of proof as to title to property is shifted to a private party opposing a state claim of property ownership. The court conducted a trial on navigability on April 21-22, 2015, and, after ruling orally from the bench on April 22, 2015, on May 5, 2015, entered Findings of Fact and Conclusions of Law as to Navigability, ruling in APGI's favor that the state "failed to meet its burden to prove that the Relevant Segment, as stipulated by the parties, was navigable for commerce at statehood." Subsequently, APGI filed a motion for summary judgment as to title; the state filed opposition papers. On September 28, 2015, the Court granted summary judgment in APGI's favor and found that the evidence demonstrates that APGI holds title to the riverbed. The Court further directed judgment to be entered in APGI's favor and closed the case. On October 13, 2015, the State of North Carolina filed notice of its appeal to the United States Court of Appeals for the Fourth Circuit.

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**Item 4. Mine Safety Disclosures.**

The information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Securities and Exchange Commission Regulation S-K (17 CFR 229.104) is included in Exhibit 95 of this report, which is incorporated herein by reference.

**Item 6. Exhibits.**

- 4(a). Fourth Supplemental Indenture, dated as of July 23, 2015, by and among RTI International Metals, Inc., Alcoa Inc., the Subsidiary Guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., incorporated by reference to Exhibit 4.1 to the Company's first Current Report on Form 8-K dated July 23, 2015
- 4(b). RTI International Metals, Inc. 2014 Stock and Incentive Plan, incorporated by reference to Exhibit 4(a) to the Company's second Current Report on Form 8-K dated July 23, 2015
- 4(c). RTI International Metals, Inc. 2004 Stock Plan, as amended, incorporated by reference to Exhibit 4(b) to the Company's second Current Report on Form 8-K dated July 23, 2015
- 12. Computation of Ratio of Earnings to Fixed Charges
- 15. Letter regarding unaudited interim financial information
- 31. Certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32. Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 95. Mine Safety Disclosure
- 101.INS XBRL Instance Document
- 101.SCH XBRL Taxonomy Extension Schema Document
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Alcoa Inc.

October 22, 2015

\_\_\_\_\_  
Date

By /s/ WILLIAM F. OPLINGER

\_\_\_\_\_  
William F. Oplinger  
Executive Vice President and Chief Financial Officer  
(Principal Financial Officer)

October 22, 2015

\_\_\_\_\_  
Date

By /s/ ROBERT S. COLLINS

\_\_\_\_\_  
Robert S. Collins  
Vice President and Controller  
(Principal Accounting Officer)

**EXHIBIT INDEX**

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**Alcoa and subsidiaries**  
**Computation of Ratio of Earnings to Fixed Charges**  
(in millions, except ratio)

<u>Nine months ended September 30,</u>	<u>2015</u>
<b>Earnings:</b>	
Income before income taxes	\$ 969
Noncontrolling interests' share of earnings of majority-owned subsidiaries without fixed charges	—
Equity loss	4
Fixed charges added to earnings	396
Distributed income of less than 50 percent-owned persons	133
Amortization of capitalized interest:	
Consolidated	31
Proportionate share of 50 percent-owned persons	—
Total earnings	<u>\$1,533</u>
<b>Fixed Charges:</b>	
Interest expense:	
Consolidated	\$ 369
Proportionate share of 50 percent-owned persons	—
	<u>\$ 369</u>
Amount representative of the interest factor in rents:	
Consolidated	\$ 27
Proportionate share of 50 percent-owned persons	—
	<u>\$ 27</u>
Fixed charges added to earnings	<u>\$ 396</u>
Interest capitalized:	
Consolidated	\$ 43
Proportionate share of 50 percent-owned persons	—
	<u>\$ 43</u>
Preferred stock dividend requirements of majority-owned subsidiaries	—
Total fixed charges	<u>\$ 439</u>
Ratio of earnings to fixed charges	<u>3.5</u>

October 22, 2015

Securities and Exchange Commission  
100 F Street, NE  
Washington, D.C. 20549

RE: Alcoa Inc.

Commissioners:

We are aware that our report dated October 22, 2015 on our review of interim financial information of Alcoa Inc. and its subsidiaries (Alcoa) for the three- and nine-month periods ended September 30, 2015 and 2014 and included in Alcoa's quarterly report on Form 10-Q for the quarter ended September 30, 2015 is incorporated by reference in its Registration Statements on Form S-3 (No. 333-197371 and 333-201055) and Form S-8 (Nos. 333-32516, 333-106411, 333-128445, 333-146330, 333-153369, 333-155668, 333-159123, 333-168428, 333-170801, 333-182899, 333-205829, and 333-203275).

Very truly yours,

/s/ PricewaterhouseCoopers LLP

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PricewaterhouseCoopers LLP  
Pittsburgh, Pennsylvania

I, Klaus Kleinfeld, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Alcoa Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 22, 2015

/s/ KLAUS KLEINFELD

Name: Klaus Kleinfeld

Title: Chairman and Chief Executive Officer



I, William F. Oplinger, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Alcoa Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 22, 2015

/s/ WILLIAM F. OPLINGER

Name: William F. Oplinger

Title: Executive Vice President and Chief Financial Officer

**Certification**  
**Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), each of the undersigned officers of Alcoa Inc., a Pennsylvania corporation (the "Company"), does hereby certify that:

The Quarterly Report on Form 10-Q for the quarter ended September 30, 2015 (the "Form 10-Q") of the Company fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 22, 2015

/s/ KLAUS KLEINFELD

Name: Klaus Kleinfeld

Title: Chairman and Chief Executive Officer

Date: October 22, 2015

/s/ WILLIAM F. OPLINGER

Name: William F. Oplinger

Title: Executive Vice President and Chief Financial Officer

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished to the Securities and Exchange Commission as an exhibit to the Form 10-Q and shall not be considered filed as part of the Form 10-Q.

## MINE SAFETY DISCLOSURE

At Alcoa, management strives to work safely in a manner that protects and promotes the health and well-being of the Company's employees, contractors, and the communities in which Alcoa operates because it is fundamentally the right thing to do. Despite uncertainties and economic challenges, Alcoa remains committed to living its values and managing risks accordingly. In 2014, 42.7% of Alcoa's global locations reported no recordable injuries, and 80.5% reported zero lost workdays. In Alcoa's 2014 Employee Global Voices Survey, "If I see a situation that is unsafe, I can stop work" received the highest overall rating (at 91% favorable) by employees participating in the survey.

Alcoa's health and safety systems are anchored by committed people who are actively engaged and effectively support a safe work environment, safe work methods, and overall production system stability. Each day, people at all levels proactively monitor and intervene to defend against weaknesses that develop in Alcoa's safety systems by identifying potential hazards and error-likely situations and responding to eliminate or control them.

In the table below, there are disclosures involving the Point Comfort, TX alumina refinery. All citations have been or are being addressed. None constituted an imminent danger.

Dodd-Frank Act Disclosure of Mine Safety and Health Administration Safety Data

Certain of Alcoa's U.S. facilities are subject to regulation by the Mine Safety and Health Administration (MSHA) under the U.S. Federal Mine Safety and Health Act of 1977 (the "Mine Act"). The MSHA inspects these facilities on a regular basis and issues various citations and orders when it believes a violation has occurred under the Mine Act. Whenever the MSHA issues a citation or order, it also generally proposes a civil penalty, or fine, related to the alleged violation. Citations or orders can be contested and appealed, and as part of that process, are often reduced in severity and amount, and are sometimes dismissed.

Management believes the following mine safety disclosures meet the requirements of section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act").

**Mine Safety Data.** The table and other data below present mine safety information related to Alcoa's U.S. facilities subject to MSHA regulation, as required by section 1503(a)(1) of the Dodd-Frank Act. The following data reflects citations and orders received from the MSHA during the quarter ended September 30, 2015, as reflected in the MSHA system on September 30, 2015, and the proposed penalties received from the MSHA during such period. (\$ in full amounts)

Mine or Operating Name/MSHA Identification Number(1)	Section 104 S&S Citations (3) (#)	Section 104(b) Orders (4) (#)	Section 104(d) Citations and Orders (5) (#)	Section 110(b)(2) Violations (6) (#)	Section 107(a) Orders (7) (#)	Total Dollar Value of MSHA Assessments Proposed (8) (\$)	Total Number of Mining Related Fatalities (9) (#)	Received Notice of Pattern of Violations Under Section 104(e) (yes/no)	Received Notice of Potential to Have Pattern Under Section 104(e) (yes/no)	Legal Actions Pending as of Last Day of Period (#)	Legal Actions Initiated During Period (#)	Legal Actions Resolved During Period (#)
Point Comfort, TX Alumina Refinery(2)	15	—	6	—	—	\$ 29,277	—	no	no	8	2	3

- (1) The MSHA assigns an identification number to each mine or operation and may or may not assign separate identification numbers to related facilities. The information provided in this table is presented by mine or operation rather than the MSHA identification number because that is how Alcoa manages and operates its business, and management believes that this presentation is more useful to investors.
- (2) Under the Interagency Agreement dated March 29, 1979 between the MSHA, the U.S. Department of Labor, and The Occupational Safety and Health Administration, alumina refineries (such as Alcoa's Point Comfort facility) are subject to MSHA jurisdiction.
- (3) Represents the total number of citations issued under section 104 of the Mine Act, for violations of mandatory health or safety standards that could significantly and substantially contribute to a serious injury if left unabated. This includes the citations listed under the column headed §104(d).
- (4) Represents the total number of orders issued under section 104(b) of the Mine Act, which represents a failure to abate a citation under section 104(a) within the period prescribed by the MSHA. This results in an order of immediate withdrawal from the area of the mine affected by the condition until the MSHA determines that the violation has been abated.
- (5) Represents the total number of citations and orders issued under section 104(d) of the Mine Act for unwarrantable failure to comply with mandatory health or safety standards.

- (6) Represents the total number of flagrant violations identified under section 110(b)(2) of the Mine Act.
- (7) Represents the total number of imminent danger orders issued under section 107(a) of the Mine Act.
- (8) Amounts represent the total dollar value of proposed assessments received.
- (9) On September 24, 2014, MSHA notified Alcoa that it had decided to postpone issuance of a pattern of violations notice to Alcoa's facility in Point Comfort, Texas because of Alcoa's recent corrective actions and safety improvements. On January 30, 2015, MSHA notified Alcoa that it would not issue a pattern of violations notice for the 12-month enforcement period ending July 31, 2014, because Alcoa had achieved MSHA's target rate for reductions in S&S violations.

During the quarter ended September 30, 2015, Alcoa had no mining related fatalities, and none of the Company's mining operations received written notice from the MSHA of a pattern of, or the potential to have a pattern of, violations of mandatory health or safety standards that are of such nature as could have significantly and substantially contributed to the cause and effect of mine health or safety hazards under section 104(e) of the Mine Act.

The Federal Mine Safety and Health Review Commission (the "Commission") is an independent adjudicative agency that provides administrative trial and appellate review of legal disputes arising under the Mine Act. As of September 30, 2015, Alcoa has a total of eight matters pending before the Commission. Seven of these matters concern contests of citations or orders issued under section 104 of the Mine Act, along with the contests of the proposed penalties for each of these. The other matter was a retaliation complaint filed by an employee, which was dismissed by an Administrative Law Judge on September 28, 2015 (the employee has 30 days to file a Petition for Discretionary Review). All of these matters concern citations, orders or proposed assessments issued by MSHA during 2015 (six) or 2014 (two).