

# Alcoa Inc. (AA) Investment Report

## Abstract

We believe that the Cornell Hedge Fund should take a short position in Alcoa Inc. (NYSE: AA, current stock price \$10.00) for a period of one year with a target exit price of \$7. There are a number of factors that made us come to this conclusion. Firstly, the company has a strong revenue dependence on Aluminum and the company and industry are highly dependent on Aluminum prices (which are currently on a downward trend). Furthermore, the European debt crisis and Chinese Economic slowdown have resulted in their respective demand for the company's products going down in recent years. Also, using a public company comparable analysis Alcoa Inc. seems to be overvalued using both the EV/EBITDA multiple and the PE multiple. Due to the reasons mentioned above and other factors our outlook on this stock is that its price should decrease within the next year.

## Stock Price History



## Company History and Overview<sup>1,2</sup>

Alcoa Inc. was formed in 1888 in Pennsylvania. The Company's principal office is now located in New York, New York. Alcoa is a global leader in lightweight metals engineering and manufacturing. Alcoa's multi-material products, which include aluminum, titanium, and nickel, are used worldwide in aerospace, automotive, commercial transportation, packaging, construction, oil and gas, defense, consumer electronics, and industrial applications.

Alcoa also participates in all major aspects of the industry: technology, mining, refining, smelting, fabricating, and recycling. Sales of primary aluminum and alumina represent approximately 40% of Alcoa's revenues. Alcoa's operating results also depend on the price of aluminum, a commodity that is traded on the London Metal Exchange and priced daily.

Alcoa operates in 30 countries. The United States and Europe generated 55% and 26% of sales respectively. Alcoa also has operations and investments in Australia, Brazil, China, Guinea, Iceland, Russia, and Saudi Arabia, among others. Governmental policies, laws, regulations, and economic factors, including inflation and fluctuations in foreign currency exchange rates and interest rates, affect the results of operations in these countries.

Alcoa's operations consist of five worldwide reportable segments: Alumina, Primary Metals, Global Rolled Products, Engineered Products and Solutions, and Transportation and Construction Solutions. The Company divides these segments into upstream, midstream, and downstream.

The Alumina segment (upstream) mines bauxite, and refines it into alumina. Alcoa is the largest bauxite producer in the world.

The Primary Metals segment (upstream) is a smelter system that produces primary aluminum used by Alcoa's fabricating businesses and sold to external customers and traders.

The Global Rolled Products (midstream) segment produces aluminum sheet and plate. One half of the third-party shipments in this segment consist of sheet sold directly to customers in the packaging end market for the production of aluminum cans used to package beverages, food, and pet food. Sheet and plate are also sold directly to the aerospace, automotive, commercial transportation, building and construction, and industrial products markets.

The Engineered Products and Solutions (downstream) produces products that are mostly used in commercial and defense aerospace, commercial transportation, and power generation end markets. This segment produces fastening systems, seamless rolled rings, and investment castings. This segment also produces forging and extrusion metal products for the oil and gas, industrial products, automotive, and land and sea defense end markets.

The Transportation and Construction Solutions (downstream) delivers products that are used mostly in the nonresidential building and construction and commercial transportation end markets. Products include integrated aluminum structural systems, architectural extrusions, and forged aluminum commercial vehicle wheels. The segment also produces aluminum products for the industrial products end.

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 consist of the Alumina and Primary Metals segments, and the other company will comprise the Global Rolled Products, Engineered Products and Solutions, and Transportation and Construction Segments. Alcoa aims to complete this separation in the second half of 2016.

<sup>1</sup> Alcoa Inc. (2015). Form 10-K. Retrieved from SEC EDGAR website <http://www.sec.gov/Archives/edgar/data/4281/000119312516470162/d216801d10k.htm>

<sup>2</sup> Alcoa. N.p.,n.d. Web. 16 Apr. 2016. <http://www.alcoa.com/global/en/home.asp>.

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**Chairman and Chief Executive Officer:** Klaus Kleinfeld joined the Company in 2007 as President and Chief Operating Officer, and resumed CEO responsibilities seven months later. Before Alcoa, Mr. Kleinfeld had a 20-year career at Siemens, where he served as the Chief Executive Officer of Siemens AG starting in 2005. Mr. Kleinfeld is also a member of the Board of Directors of Hewlett-Packard and Morgan Stanley.

**Vice President, Chief Communications Officer:** Libby Archell was appointed Vice President and Chief Communications Officer in September 2013. Ms. Archell previously served as the Director of Corporate Communications for Hewlett-Packard.

**Vice President, Chief Investment Officer, Pension Plan Investments:** Ronald E. Barin was elected Vice President of Alcoa in May 2012. He joined the Company in 2008 as the Assistant treasurer and Chief Investment Officer, Pension Plan Investments. Before Alcoa, Mr. Barin served as Senior Director, Pension Investments for Pfizer Inc., a leading pharmaceutical firm.

**Executive Vice President, Chief Technology Officer:** Dr. Raymond J. Kilmer was named CTO in April 2011 and elected as an Executive Vice President in May 2011. Dr. Kilmer joined Alcoa in 1998 and later became the Chairman of the Technology Management Review Board for the Company's Global Rolled Products segment. Before Alcoa, Dr. Kilmer worked for General Motors as a plant metallurgist and assistant superintendent of Advanced Manufacturing Engineering.

**Executive Vice President and Chief Financial Officer:** William F. Oplinger was appointed Executive Vice President and CFO for Alcoa in April 2013. Mr. Oplinger previously served as Chief Operating Officer for Alcoa's Global Primary Products sector. Before Alcoa, Mr. Oplinger held engineering, marketing management, and business planning positions with Westinghouse and Emerson Electric.

**Vice President, Chief Ethics and Compliance Officer:** Susan Ringler joined Alcoa in June 2013 as Vice President and Chief Ethics and Compliance Officer. Before Alcoa, Ms. Ringler was a Deputy General Counsel at Xylem Inc., a global water technology company.

**Executive Vice President, Chief Legal Officer and Secretary:** Audrey Straus joined Alcoa in May 2012 as Executive Vice President, Chief Legal Officer and Secretary. Before Alcoa, Ms. Strauss was a senior Litigation Partner at the law firm Fried Frank Harris Shriver and Jacobson.

## SWOT Analysis<sup>4,5</sup>

Strengths	Opportunities
<ul style="list-style-type: none"> <li>- Strong history in the aluminum production industry</li> <li>- Global diversification</li> </ul>	<ul style="list-style-type: none"> <li>- Growing emerging markets</li> <li>- Growing global consumer electronics market</li> <li>- Growing global automotive industry</li> <li>- Increasing aerospace demand</li> </ul>
Weaknesses	Threats
<ul style="list-style-type: none"> <li>- Strong Revenue Dependence on aluminum and alumina</li> <li>- Heavy investment required for expansion and development of technology initiatives</li> <li>- Plan to separate into two independent companies subject to risks and uncertainties</li> </ul>	<ul style="list-style-type: none"> <li>- Intense competition</li> <li>- Global economic slowdown</li> <li>- External changes, increased regulations, strong U.S. dollar</li> </ul>

### Strengths:

Alcoa is one of the largest producers of aluminum worldwide, which means it has historically done well in the industry. The Company's vertically integrated system supports its leadership in the aluminum industry. This vertical integration is seen in the categorization of the company's segments into upstream, midstream, and downstream. Thus, Alcoa owns many of its upstream suppliers and downstream buyers.

The Company has operations in over 30 countries and diversified end markets. This diversification prevents any single occurrence from impacting the overall top or bottom line too much.

### Weaknesses:

Strong revenue dependence on aluminum and alumina means that Alcoa could be adversely affected by declines in aluminum prices (including regional and product-specific prices). An imbalance in global supply and demand of aluminum, such as decreasing demand without a corresponding decrease in supply, could have negative impacts on the price of aluminum. Speculative trading in aluminum has increased in recent years, contributing to higher levels of price volatility.

Heavy investment is required for expansion and development of technology initiatives. Alcoa is working on new developments such as additive manufacturing, alloy development, engineered finishes and product design, high speed continuous casting and rolling

<sup>3</sup> Alcoa Website

<sup>4</sup> 10-K

<sup>5</sup> Alcoa Website



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technology, and other manufacturing technologies. The Company has no assurance that these developments will be commercially feasible or beneficial to the Company.

Alcoa's plan to separate into two independent publicly-traded companies is subject to various risks and uncertainties. The Company expects this process will be time-consuming and involve significant costs, which may be higher than anticipated. Furthermore, the separation may not achieve all of the anticipated benefits. The two independent companies will be smaller and less diversified, making them more vulnerable to changing market conditions.

## Opportunities:

Growth in emerging markets is an opportunity because Alcoa will be able to offer its products for aerospace, automotive, commercial transportation, packaging, construction, oil and gas, defense, consumer electronics, and industrial applications industries to these new markets.

The growing global consumer electronics market, the growing global automotive industry, and increasing aerospace demand will give Alcoa the opportunity to expand its products and services.

## Threats:

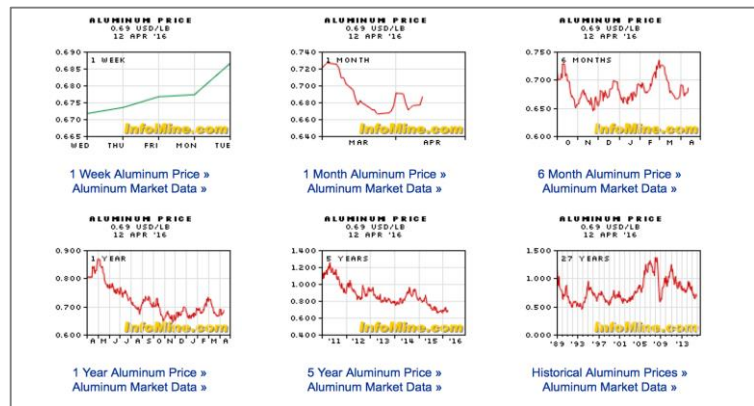
Intense competition could adversely affect profitability. Alcoa's competitors include both U.S. and non-U.S. companies in major markets. The Company's metal products compete with other materials such as steel, plastics, composites, ceramics, and glass. Lower costs of competitors and imports will also threaten Alcoa's profitability.

Global economic slowdown threatens the Company's profitability. Demand for aluminum is highly correlated to economic growth. Since 2009, the European debt crisis has decreased European demand for the Company's products. While the Company viewed China as a significant source of global demand for commodities, including aluminum, the recent slowdown in China's economic growth has slowed Chinese aluminum demand.

External changes (government regulations, laws, politics, taxes, fluctuations in foreign currency exchange rates and interest rates, etc.) also exposes Alcoa to possible threats. The Company is subject to a variety of health, safety and environmental laws and regulations, making it exposed to substantial costs and liabilities associated with these regulations. Changes in the valuation of the US. Dollar against other currencies (especially the Australian dollar, Brazilian real, Canadian dollar and the Euro), may affect the Company's profitability as some important inputs are purchased in other countries, while Alcoa's upstream products are generally sold in U.S. dollars. While a strong U.S. dollar generally has a positive impact on the Company's near-term profitability, in the long-term, a strong U.S. dollar could make Alcoa's product prices too high for overseas customers.

## Industry Outlook

The macro-economic events of 2015: S&P Metals & Mining Index down 51%. The prices of aluminum dropped 28% and of alumina by 43%. The decline in metal price pulled the share price substantially down and still has a general down trend.



## Public Comparable Companies Analysis

- We have used the mean PE, EV/Revenue, and median EV/EBITDA estimate of 2016 for the comparable company multiple.
- According to the EV/EBITDA multiple on group level of 11.0x we got an implied share price of \$8 for 2016.
- The PE multiple of 16.9x for 2016 results in a share price of \$(11) for 2016. (Invalid for negative earnings)
- The EV/EBITDA multiple of 11.0x for 2016 results in a share price of \$19 for 2016.