ALUMINUM¹

(Data in thousand metric tons of metal unless otherwise noted)

Domestic Production and Use: In 2009, 6 companies operated 13 primary aluminum smelters; 4 smelters were closed the entire year, and demolition of 1 smelter that had been idle since 2000 was completed in 2009. Of the operating smelters, three were temporarily idled and parts of four others were temporarily closed in 2009. Based on published market prices, the value of primary metal production was \$2.96 billion. Aluminum consumption was centered in the East Central United States. Transportation accounted for an estimated 33% of domestic consumption; the remainder was used in packaging, 26%; building, 14%; electrical, 8%; machinery, 8%; consumer durables, 7%; and other, 4%.

Salient Statistics—United States:	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009^e</u>
Production: Primary	2.481	2.284	2.554	2.658	1.710
Secondary (from old scrap)	1,080	1,260	1,600	1,340	1,260
Imports for consumption	5,330	5,180	4,490	4,200	4,130
Exports	2,370	2,820	2,840	3,280	2,570
Consumption, apparent ²	5,990	5,980	5,110	3,790	3,610
Price, ingot, average U.S. market (spot), cents per pound	91.0	121.4	125.2	120.5	78.0
Stocks:					
Aluminum industry, yearend	1,430	1,410	1,400	1,220	920
LME, U.S. warehouses, yearend ³	209	228	463	1,290	2,120
Employment, number ^⁴ Net import reliance ⁵ as a percentage of	58,400	57,300	56,600	53,900	45,000
apparent consumption	41	31	19	E	18

<u>Recycling</u>: In 2009, aluminum recovered from purchased scrap was about 3.0 million tons, of which about 60% came from new (manufacturing) scrap and 40% from old scrap (discarded aluminum products). Aluminum recovered from old scrap was equivalent to about 35% of apparent consumption.

Import Sources (2005-08): Canada, 56%; Russia, 17%; Brazil, 4%; Venezuela, 4%; and other, 19%.

<u>Tariff</u> : Item	Number	Normal Trade Relations <u>12-31-09</u>
Unwrought (in coils)	7601.10.3000	2.6% ad val.
Unwrought (other than aluminum alloys)	7601.10.6000	Free.
Waste and scrap	7602.00.0000	Free.

Depletion Allowance: Not applicable.1

Government Stockpile: None.

Events, Trends, and Issues: During the first half of 2009, several domestic primary aluminum smelters cut back production in response to significant price drops in the second half of 2008. Smelter closures took place in Alcoa, TN; Massena, NY; and Ravenswood, WV. Partial temporary shutdowns took place at smelters in Columbia Falls, MT; Hannibal, OH; Hawesville, KY; and New Madrid, MO. Demolition of a smelter in Vancouver, WA, that started in 2008 was completed in 2009. By the beginning of the fourth quarter of 2009, domestic smelters operated at about 49% of rated or engineered capacity.

ALUMINUM

The United States again became reliant upon net imports as a percentage of apparent consumption in 2009 compared with that of 2008 when the Nation was a net exporter of aluminum, as domestic primary production and exports decreased significantly. Canada and Russia accounted for almost three-fourths of total imports. U.S. exports decreased by 22% in 2009 compared with the amount exported in 2008. China, Canada, and Mexico, in descending order, received approximately three-fourths of total United States exports.

The price of primary aluminum generally rose through August 2009 before declining in September. In January, the average monthly U.S. market price for primary ingot quoted by Platts Metals Week was \$0.676 per pound; it reached a high of \$0.921 per pound in August, but in September, the average monthly price was \$0.883 per pound. Prices on the London Metal Exchange (LME) followed the trend of U.S. market prices. The monthly average LME cash price for August was \$0.877 per pound, but in September the price was \$0.832 per pound.

World primary aluminum production declined sharply in the first quarter of the year in response to price declines in the wake of the financial crises that started in late 2008 and continued in early 2009. World inventories of metal held by producers, as reported by the International Aluminium Institute, decreased through the end of August to about 2.3 million tons from 3.0 million tons at yearend 2008. Inventories of primary aluminum metal held by the LME worldwide increased during the year to 4.6 million tons at the end of September from 2.3 million tons at yearend 2008.

World Smelter Production and Capacity:

	Proc	duction	Yearend capacity	
	<u>2008</u>	<u>2009^e</u>	<u>2008</u>	2009 ^e
United States	2,658	1,710	3,620	3,500
Australia	1,970	1,970	1,970	1,970
Bahrain	865	870	880	880
Brazil	1,660	1,550	1,700	1,700
Canada	3,120	3,000	3,120	3,090
China	13,200	13,000	15,000	19,000
Germany	550	520	620	620
Iceland	787	790	790	790
India	1,310	1,600	1,800	2,000
Mozambique	536	500	570	570
Norway	1,360	1,200	1,360	1,230
Russia	3,800	3,300	4,400	5,150
South Africa	811	800	900	900
United Arab Emirates, Dubai	910	950	950	950
Venezuela	610	550	625	625
Other countries	4,850	4,600	6,260	6,920
World total (rounded)	39,000	36,900	44,600	49,900

<u>World Resources</u>: Domestic aluminum requirements cannot be met by domestic bauxite resources. Domestic nonbauxitic aluminum resources are abundant and could meet domestic aluminum demand. However, no processes for using these resources have been proven economically competitive with those now used for bauxite. The world reserves for bauxite are sufficient to meet world demand for metal well into the future.

<u>Substitutes</u>: Composites can substitute for aluminum in aircraft fuselages and wings. Glass, paper, plastics, and steel can substitute for aluminum in packaging. Magnesium, titanium, and steel can substitute for aluminum in ground transportation and structural uses. Composites, steel, vinyl, and wood can substitute for aluminum in construction. Copper can replace aluminum in electrical applications.

^eEstimated. E Net exporter.

¹See also Bauxite and Alumina.

²Domestic primary metal production + recovery from old aluminum scrap + net import reliance; excludes imported scrap.

³Includes aluminum alloy.

⁴Alumina and aluminum production workers (North American Industry Classification System—3313). Source: U.S. Department of Labor, Bureau of Labor Statistics.

⁵Defined as imports – exports + adjustments for Government and industry stock changes.