

Aluminum

Wayne Wagner

International and Domestic Market Policy Division

Telephone: (613) 996-5951

E-mail: wwagner@nrcan.gc.ca

1998 primary metal production: \$4.8 billion^e
 World rank: Third
 Exports (unwrought): \$4.2 billion
 Installed capacity: 2.247 Mt/y

Canada	1997	1998 ^P	1999 ^e	2000 ^f
	(000 tonnes)			
Production	2 327	2 374	2 370	2 400
Apparent consumption	628	734	840	950

^e Estimated; ^f Forecast; ^P Preliminary.

Aluminum, in both its pure and alloyed form, is used to make a wide variety of products for the consumer and capital goods markets. Aluminum's largest markets are transportation (29%), packaging (22%), building and construction (13%), electrical (7%), consumer goods (7%), and machinery and equipment (6%). North America is the largest consuming region in the world, accounting for 35% of total Western World demand. Europe accounts for another 31% and Asia accounts for 24%.

AVERAGE (THREE-MONTH) ALUMINUM PRICES, LONDON METAL EXCHANGE

1995	1996	1997	1998	1999 ^e
(US\$/t)				
1 832	1 535	1 619	1 379	1 385

^e Estimated.

CANADIAN OVERVIEW

- Alcan Aluminium Limited has completed approximately one third of the Alma smelter. This 375 000-t/y plant will replace the Isle Maligne smelter and will expand Alcan's primary metal production by 300 000 t/y. The Alma smelter is expected to start producing metal in the fall of 2000.
- Alcan, along with Pechiney Corporation of France and Alusuisse Lonza Group Limited (algroup) of Switzerland, announced a proposed merger on August 11, 1999. Once completed, this merger would create one of the largest aluminum companies in the world. The three companies currently have 91 000 employees, will produce approximately 18% of Western World primary aluminum production, and have combined estimated 1999 sales of approximately US\$23 billion. The merger is subject to regulatory and other approvals and is expected to be completed in mid-2000.
- In March, Alcan Aluminium Limited announced that it would invest US\$46 million in its Kingston, Ontario, facilities to expand production of aluminum rolled sheet for the automotive and distribution markets. The expansion, to be completed by the end of 2000, will increase capacity by 40%.

Additional information on Alcan, including the merger with Pechiney and algroup, can be obtained through the Alcan web site at <http://www.alcan.com/>.

- The Aluminium Association of Canada links the Canadian aluminum industry, aluminum users, the public and government. Further information and web sites of Canadian primary aluminum producers can be found on the Association's web site at <http://www.aia.aluminium.qc.ca>.

WORLD OVERVIEW

- Alcoa Inc. and Reynolds Metals Company Limited announced a proposed merger of their respective companies on August 11, 1999. Once completed, this merger would create one of the largest

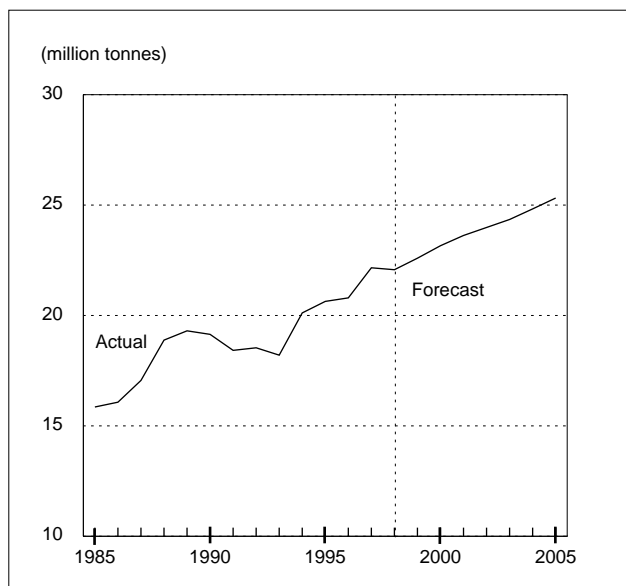
aluminum companies in the world. The two companies currently have 123 500 employees, combined production of approximately 24% of world primary aluminum production, and combined estimated 1999 sales of US\$22 billion. The merger is also subject to regulatory and other approvals and is expected to be completed in mid-2000. Additional information can be obtained from Alcoa's web site at <http://www.alcoa.com/>.

- Kaiser Aluminum and Chemical Corporation notified customers on July 7, 1999, that a July 5 explosion at its Gramercy, Louisiana, alumina refinery required it to declare force majeure on its commitments. The Kaiser Board of Directors approved reconstruction and expected to have the plant in full operation by the end of 2000. Additional information can be obtained from the Kaiser web site at <http://www.kaiseral.com/>.
- Although the alumina market was weak earlier in the year, alumina supplies became more difficult to obtain for those customers without long-term contracts or other sources as a result of the lost production at Gramercy. Prices for alumina have moved up sharply from approximately US\$150/t to over \$300/t near the end of 1999 as increases in production from other sources in Australia, Brazil, China and Russia were not sufficient to balance the lost production on short-term markets.
- Expansions of primary facilities around the world continue. In addition to the capacity creep, a number of small Chinese smelters have announced plans for production increases while others have completed smaller expansions. In addition, Dubal Aluminum completed its expansion to a capacity of 536 000 t/y in October, and a capacity expansion at Noranda's New Madrid, Missouri, smelter to 253 000 t/y is expected to be completed by year-end.

CONSUMPTION OUTLOOK

World consumption of primary aluminum is estimated to be 22.6 Mt in 1999, approximately 2% higher than the 22.1 Mt recorded in 1998. Western World demand is also expected to increase by approximately 3% to 19.2 Mt in 1999. In 2000, world demand for aluminum is expected to increase approximately 3% from 1999 levels. In the longer term, annual growth of 2-3% is forecast for the early part of the next decade. The transportation and packaging markets are expected to lead the increase in demand for aluminum to the year 2005. Canadian consumption of primary aluminum is expected to remain strong at about 750 000 t for 1999, increasing, over the longer term, at a rate of about 5-6% annually.

Figure 1
World Aluminum Consumption, 1985-2005



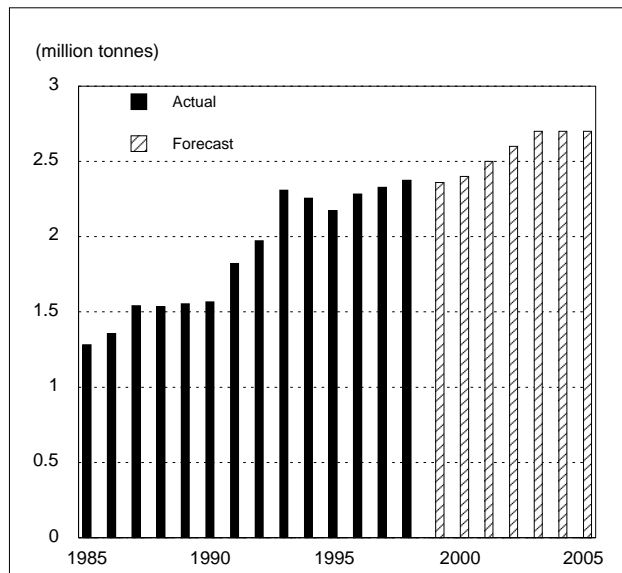
Source: Natural Resources Canada.

CANADIAN AND WORLD PRODUCTION OUTLOOK

Canada is forecast to produce about 2.4 Mt of primary aluminum in 1999. It produced 2.374 Mt in 1998 valued at an estimated \$4.8 billion, ranking it third after the United States and Russia. Additional details of Canada's production statistics can be obtained on the Internet at <http://www.nrcan.gc.ca/mms/efab/data/default.html>. Although Canadian aluminum production capacity increased substantially during the latter half of the 1980s, it has remained relatively stable during the 1990s. Canadian production capacity is forecast to increase to over 2.6 Mt in 2000 with the completion of Alcan's Alma smelter. Other smelter expansion projects in Quebec (at Alouette, A.B.I. and Lauralco) are dependent on the negotiation of new long-term powersupply contracts with Hydro-Québec. Decisions on possible new capacity in British Columbia are still pending.

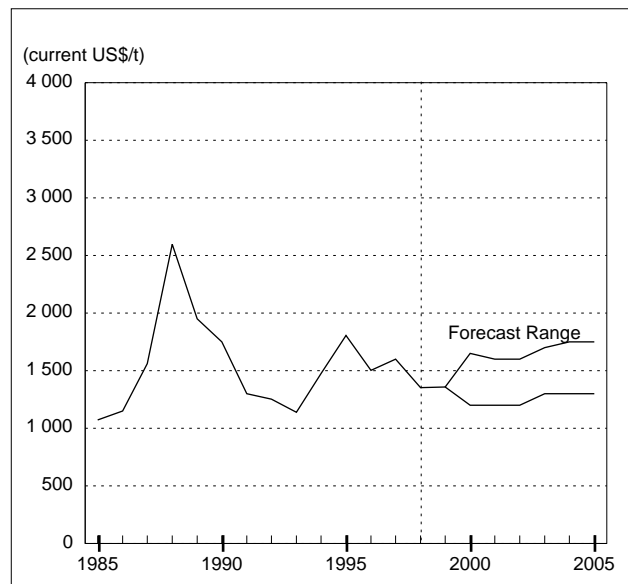
World production of primary aluminum is expected to increase to over 23 Mt in 1999 from 22.6 Mt in 1998. Western World production is expected to increase to 16.9 Mt, up from 16.6 Mt in 1998. Aluminum production in 1999 is expected to be about 3.8 Mt in the United States, 3.9 Mt in Western Europe, and 3.2 Mt in Russia.

Figure 2
Canadian Primary Aluminum Production,
1985-2005



Source: Natural Resources Canada.

Figure 3
Aluminum Prices, 1985-2005
Annual LME Settlement



Source: Natural Resources Canada.

PRICE OUTLOOK

Metal prices have been volatile over the last few years and, in 1999, prices for aluminum were no exception. Cash prices for primary grade aluminum started the year at approximately US\$1200/t (55¢/lb), declined to a low of \$1140/t (52¢/lb) in March, and rose to above \$1500/t in September. London Metal Exchange inventories, which began the year at about 635 000 t, increased to 822 000 t in March and decreased to below 800 000 t late in the year (approximately 13 days of world primary consumption). For 2000, prices are forecast to be between US\$1200 and \$1650/t. In the longer term, prices are expected to continue their volatility between US\$1200 and \$1800/t (55¢ and 82¢/lb). Metal prices can be obtained from various news services, journals and newspapers, as well as from the London Metal Exchange web site at <http://www.lme.co.uk/> and from <http://metalprices.com/>.¹

¹ Please note the caveats on using these metals prices published here and on web sites such as those mentioned above. Readers should verify and confirm that the data are appropriate for their use.

Note: Information in this article was current as of November 19, 1999.

NOTE TO READERS

The intent of this document is to provide general information and to elicit discussion. It is not intended as a reference, guide or suggestion to be used in trading, investment, or other commercial activities. The author and Natural Resources Canada make no warranty of any kind with respect to the content and accept no liability, either incidental, consequential, financial or otherwise, arising from the use of this document.