



Aluminum Statistical Review for 2008

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The Aluminum Association, Inc.
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Contents

The Aluminum Association does not warrant the accuracy or completeness of any data in this Review. All data contained herein are subject to revision.

The **Aluminum Statistical Review** is an annual publication of

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The Aluminum Association, Inc. is the trade association for producers of primary aluminum, recyclers and semi-fabricated aluminum products, as well as suppliers to the industry. Based in Arlington, Virginia the Association provides leadership to the industry through its programs and services which aim to enhance aluminum's position in a world of proliferating materials, increase its use as the "material of choice," remove impediments to its fullest use, and assist in achieving the industry's environmental, societal, and economic objectives. Member companies operate about 200 plants in the U.S and many conduct business worldwide.

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Introduction

The Aluminum Association is the only source for basic statistics on the North American aluminum industry. Statistical programs provide industry information on a variety of important topics including primary aluminum, mill products, new orders and shipments, shipments of ingot for castings, end use market estimates, inventories, recycling and secondary recovery and foreign trade.

Surveys and Publications

The Association conducts industry surveys covering U.S. and Canada on behalf of the product divisions and marketing committees with management reports published monthly, quarterly and annually. These reports typically include statistics based on aggregate survey data plus estimated expanded industry totals. Information derived from industry surveys also forms the basis for statistics published in the Association's industry fact book, the *Aluminum Statistical Review*. The Association also produces special custom reports on a for-fee basis as well as handles external and internal inquiries on basic aluminum industry matters from Association members, their customers, government agencies and others.

About the Review

The Aluminum Association's *Aluminum Statistical Review for 2008* assembles in one place the most important statistical data available on the **North America** aluminum industry. It includes information on every cycle of the aluminum production process from primary aluminum to markets for finished goods to the recovery of aluminum scrap.

The Review is divided into five major sections: supply, shipments, markets, foreign trade, and world statistics. Each section is preceded by an introduction and links to accompanying tables in MS Excel spreadsheets for ease of access.

Acknowledgments

The data for this Review were developed by the Statistical and Market Research Committee of The Aluminum Association, Inc. along with the cooperation of the following organizations: *Aluminium Association of Canada, Aluminum Extruders Council; Can Manufacturers Institute; European Aluminium Association; Metal Service Center Institute; Institute of Scrap Recycling Industries; Instituto del Aluminio; Bureau of the Census, U.S. Department of Commerce; U.S. Geological Survey, U.S. Department of Interior; Statistics Canada; and Natural Resources Canada.*

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Overview – North America Supply and Demand

The **aluminum supply** is comprised of three basic sources: **Primary** (domestic production from alumina); **Imports**¹ of ingot and semi-fabricated products; and **Recycled** (metal from scrap, also known as secondary recovery). In 2008, the aluminum supply in North America totaled 24,495 million pounds, decreasing 7.7 percent from 26,549 million pounds recorded during 2007. Domestic U.S. and Canadian primary production rose 2.4 percent to 12,738 million pounds, while imports¹ (excluding cross-border trade) of ingot and mill products fell 17.1 percent to 3,506 million pounds. Recovery² of aluminum from scrap decreased 16.5 percent to an estimated 8,251 million pounds.

Aluminum demand (producer net shipments³ plus imports) in North America declined 10.2 percent in 2008 to a total of 22,150 million pounds.

An estimated 18,876 million pounds of aluminum were shipped to **U.S. and Canadian domestic markets**, decreasing 12.0 percent from the revised 2007 total of 21,457 million pounds. **Exports**⁴ of aluminum ingot and semi-fabricated products rose 2.3 percent over the previous year to 3,274 million pounds.

The **Transportation** sector is the largest market for aluminum in North America. During 2008, shipments totaled 6,228 million pounds (28.1 percent of total volume), a drop of 21.0 percent from the 2007 total of 7,885 million pounds. Included in this market are passenger cars and light trucks and heavy trucks and buses where shipments fell 22.7 percent in 2008 to a total of 4,578 million pounds.

The second largest market for aluminum was **Containers and Packaging**. Shipments rose one-tenth of one percent over the previous year to a total of 4,918 million pounds or 22.2 percent of total shipments. Shipments of sheet for metal cans increased nine-tenths of one percent to 3,944 million pounds. Semi-rigid food containers, household and institutional foil, caps and closures and flexible packaging are other important components of this market.

Shipments to the **Building and Construction** market totaled 2,595 million pounds in 2008, 16.3 percent less than the previous year total of 3,100 million. Shipments to **Electrical** markets decreased 8.0 percent from 2007 with 2008 shipments totaling 1,544 million pounds. **Consumer Durable** shipments declined 8.6 percent to 1,338 million pounds in

2008, in part to decreased demand in applications for air conditioners, refrigerators and freezers. Shipments to non-electrical **Machinery and Equipment** markets declined to 1,516 million pounds, a decrease of 6.6 percent.

Net shipments³ (including imports) of **aluminum semi-fabricated** or mill products declined 7.3 percent from the previous year to 15,260 million pounds. Of that, **sheet and plate** totaled an estimated 9,059 million pounds, decreasing 4.4 percent from 2007 while shipments of bare **foil** declined 6.8 percent to 1,431 million pounds. **Extruded products** (shapes, rod and tube) shipments totaled 3,563 million pounds, down 11.5 from 2007. Shipments of **electrical conductor** (including ACSR, bare cable and insulated wire and conductor) totaled 700 million pounds, declining 14.4 from the previous year. **Imports**⁴ accounted for an estimated 11.8 percent of mill products going to domestic markets, compared with 11.9 percent in 2007.

Shipments of primary and secondary **ingot for castings, export and other uses** were estimated at 6,890 million pounds in 2008, down 16.0 percent from the previous year total of 8,201 million pounds.

See [Table 1: Aluminum Supply and Demand 2008](#)

1) Based on published government statistics derived from Customs documentation. North America statistics exclude U.S./Canada cross-border trade.

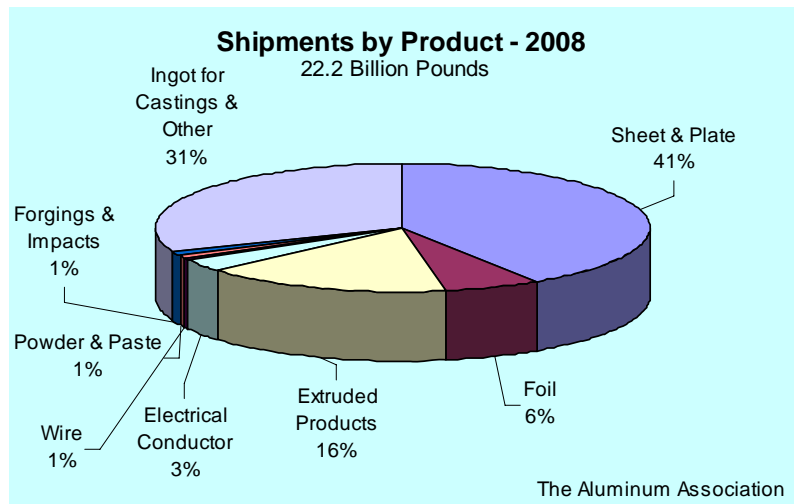
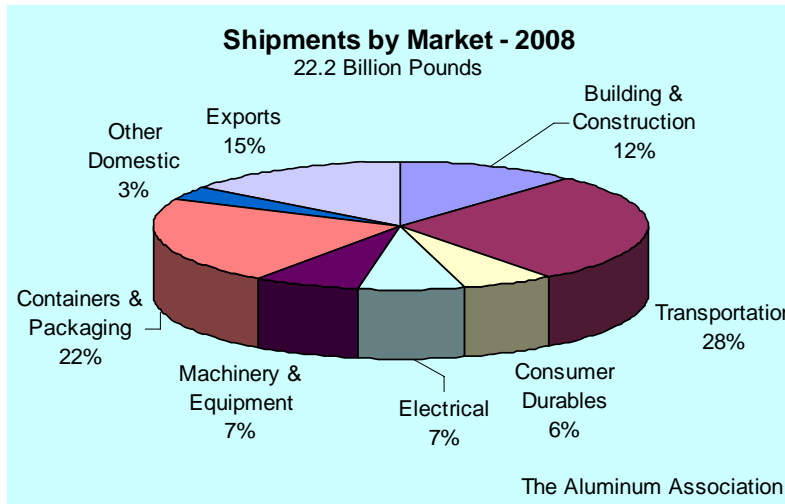
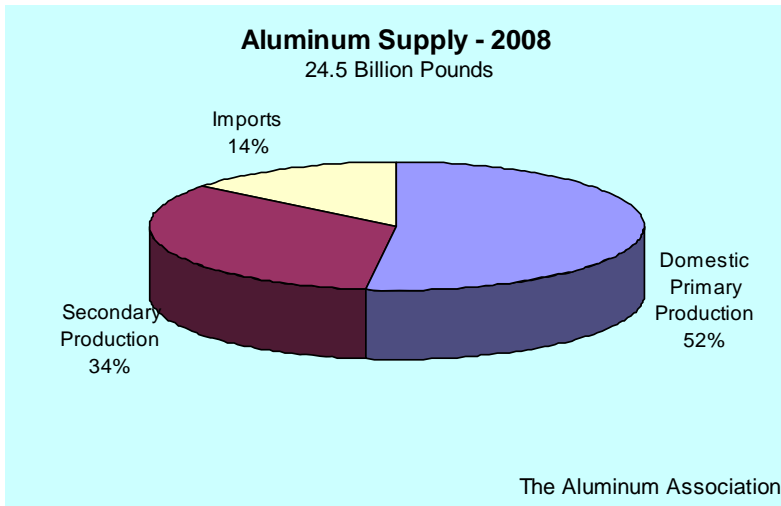
2) Scrap reclaimed within the U.S. or Canada. Statistics derived from government sources and association estimates. Figures include imports of scrap processed in domestic facilities but exclude scrap that has been exported.

3) U.S. and Canadian producer net shipments of aluminum ingot and mill products plus imports. Net shipments exclude intra-industry shipments for further fabrication.

4) Based on published government statistics derived from Customs documentation. Figures contain estimated adjustments to account for apparent misclassifications. North America statistics exclude U.S./Canada cross-border trade.

5) Net ingot for foundry castings, export and destructive uses.

Overview – North America Supply and Demand



Aluminum Supply

Overall, the **North American aluminum supply** decreased 931 thousand metric tons in 2008 to a total of 11,111 thousand metric tons. This represents a decline of 7.7 percent from 2007.

United States

Aluminum supply in the U.S. decreased 8.2 percent to 10,172 metric tons. **Imports** (including those from Canada) represent the largest source of aluminum, accounting for 39.9 percent of the supply. U.S. imports of primary and recycled ingot as well as semi-fabricated products totaled 4,064 thousand metric tons, decreasing 7.1 percent from the 2007 level of 4,376 thousand metric tons. **Recovery of aluminum from domestic and imported sources of scrap**, totaled an estimated 3,449 thousand metric tons (33.9 percent of the supply), a decline of 16.7 percent from the revised 2007 total of 4,140 thousand metric tons. Domestic **primary production** accounted for 26.1 percent of the U.S. supply, totaling 2,659 thousand metric tons, up 3.9 percent over the previous year.

In the eleven years 1998-2008, U.S. supply declined at an annual rate of three-tenths of one percent. Imports of ingot and mill products have increased at an annual rate of 1.9 percent while secondary recovery has remained level. Domestic primary production has declined at an annual rate of 3.0 percent over the past eleven years.

Canada

The aluminum supply in Canada decreased 1.4 percent during 2008 to a total of 4,120 metric tons. **Primary production** totaled 3,119 thousand metric tons, up 1.2 percent over the 2007 total of 3,083 thousand metric tons. **Imports** (including from the United States) of ingot and mill products totaled 708 thousand metric tons, decreasing 5.9 percent from the 2007 level of 752 thousand metric tons. **Recovery of aluminum from scrap** totaled an estimated 293 thousand metric tons, off 14.5 percent from the 2007 total of 343 thousand metric tons.

The aluminum supply in Canada grew at an annual rate of 2.2 percent from 1998-2008. Imports of ingot and mill products increased at an annual rate of one-tenth of one percent while secondary recovery rose 4.4 percent. Domestic primary production has increased at an annual rate of 2.5 percent.

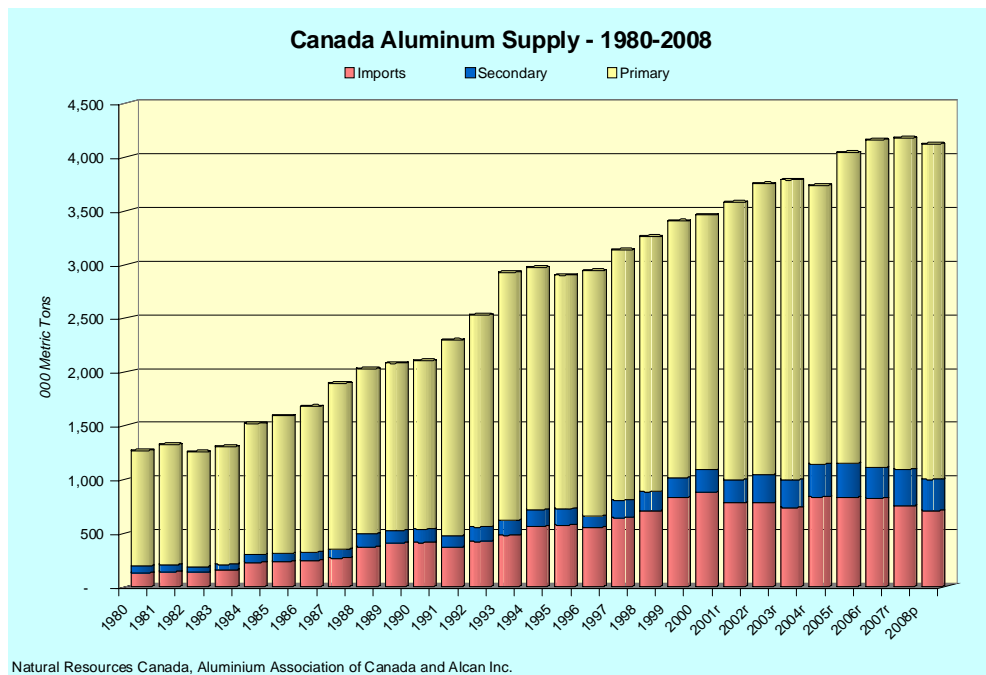
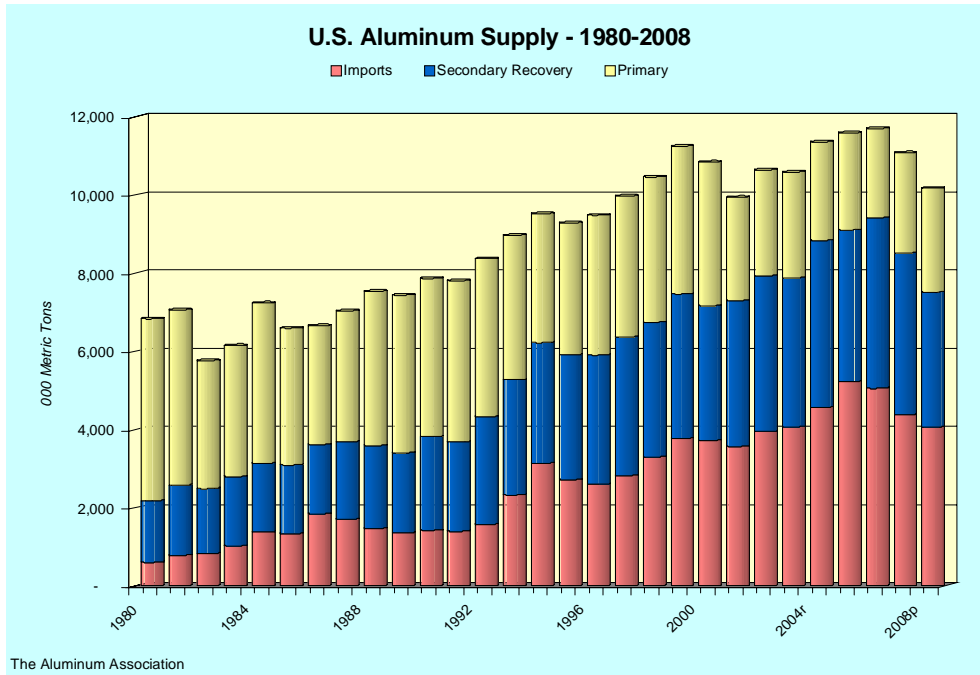
U.S./Canadian trade is an important element of the aluminum industry. According to the U.S. Bureau of the Census, imports from Canada totaled 2,956 thousand metric tons in 2008 accounting for approximately 64 percent of all imports of aluminum ingot, scrap and mill products. At the same time, Statistics Canada reported imports from the United States totaling 761 thousand metric tons in 2008, accounting for about 87 percent of aluminum imports into Canada.

See

[Table 2: US Aluminum Supply 1942-present](#)

[Table 3: Canada Aluminum Supply 1979-present](#)

Aluminum Supply



Aluminum Supply

Producer's Inventories

Inventories held by U.S. and Canadian producers include all forms of scrap, ingot, metal in process and finished products. During 2008 inventories declined to a year-end inventory of 1,215 thousand metric tons, off 13.3 percent from the prior year. Inventories of ingot fell 20.7 percent while scrap inventories increased by 15.8 thousand metric tons. Inventories of metal in process and finished products declined 16.7 percent.

Primary Aluminum Production

Primary aluminum production in the U.S. and Canada totaled 5,778 thousand metric tons during 2008, compared with production of 5,642 thousand metric tons in 2007, an increase of 2.4 percent. Canadian production rose 1.2 percent to 3,119 thousand metric tons in 2008 while production in the United States was up 3.9 percent to 2,659 thousand metric tons. In the decade 1998-2008 the average annual rate of change was a negative five-tenths of one percent.

Primary Aluminum Installed Capacity

Total annual primary aluminum installed capacity as of December 31, 2008 was 6,426 thousand metric tons, three-tenths of one percent above the previous year. Primary capacity in the U.S. totaled 3,300 metric tons, increasing two-tenths of one percent over 2007. The percentage distribution of U.S. capacity by company at year-end was: Alcoa Inc., 56.9%; Century Aluminum Corp., 15.9%; Ormet Corp., 8.1%; Noranda, Inc., 7.9%; Rio Tinto Alcan, 5.9%; and Columbia Falls Aluminum, 5.2%. Primary capacity in Canada totaled 3,126 metric tons, up five-tenths of one percent over 2007. The percent distribution in Canada was: Rio Tinto Alcan, 57.1%; Alcoa Inc., 31.9%; and Aluminerie Alouette, Inc., 11.0%. *Note: Capacity includes both operating plants and plants temporarily closed that can be brought into production within a short period of time with minimal capital expenditure.*

U.S. Aluminum Scrap Consumption and Recovery

According to statistics published by the U.S. Geological Survey, the United States recycled an estimated 5,570 thousand metric tons of domestically generated

aluminum scrap during the year 2008, a decrease of 1.6 percent from previous year total of 5,663 thousand tons. These figures include both manufacturing scrap and post-consumer scrap purchased by U.S. aluminum companies (less imports) as well as scrap exports. Figures do not include in-plant runaround.

Preliminary statistics show that the aluminum industry purchased an estimated 4,144 thousand metric tons of aluminum scrap in 2008 from all sources (including imports), a decline of 9.5 percent from the 2007 volume of 4,579 thousand metric tons. U.S. exports of scrap, which are included as a component of recycled metal but are not included in government statistics on scrap consumption, jumped 24.0 percent to a total of 1,957 thousand tons.

Reclamation of used aluminum beverage cans continues to be a major source of supply for the U.S. aluminum industry. During 2008, the aluminum industry melted an estimated 706 thousand metric tons of used beverage cans, off 1.2 percent from 2007. In 2008, UBC recycling accounted for 54.2 percent of beverage can shipments.

See

[Table 4: Producers Inventories 1967-present](#)

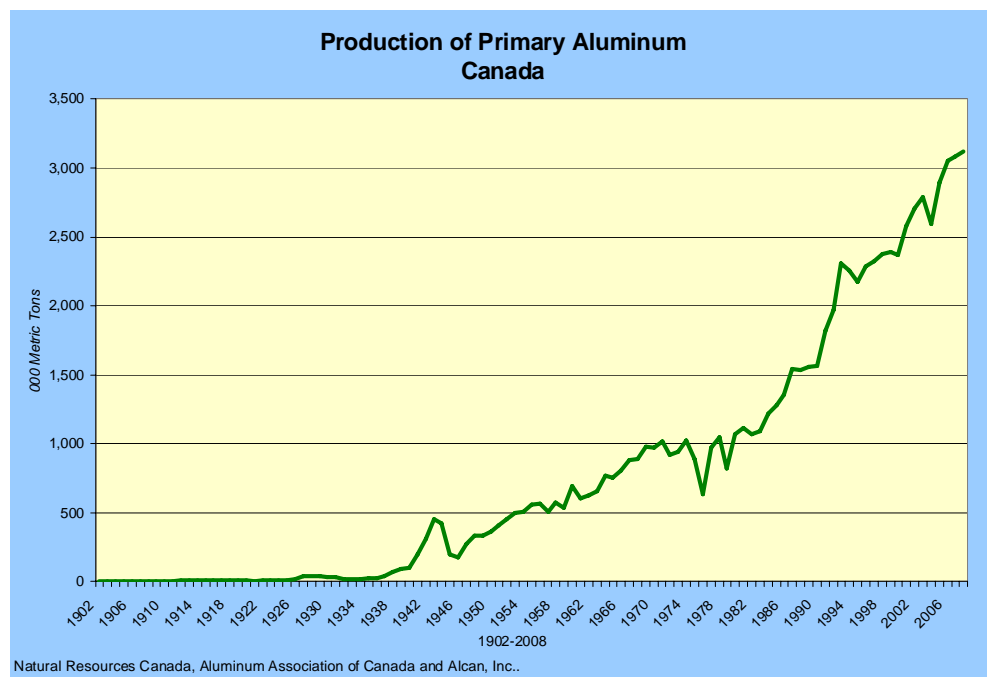
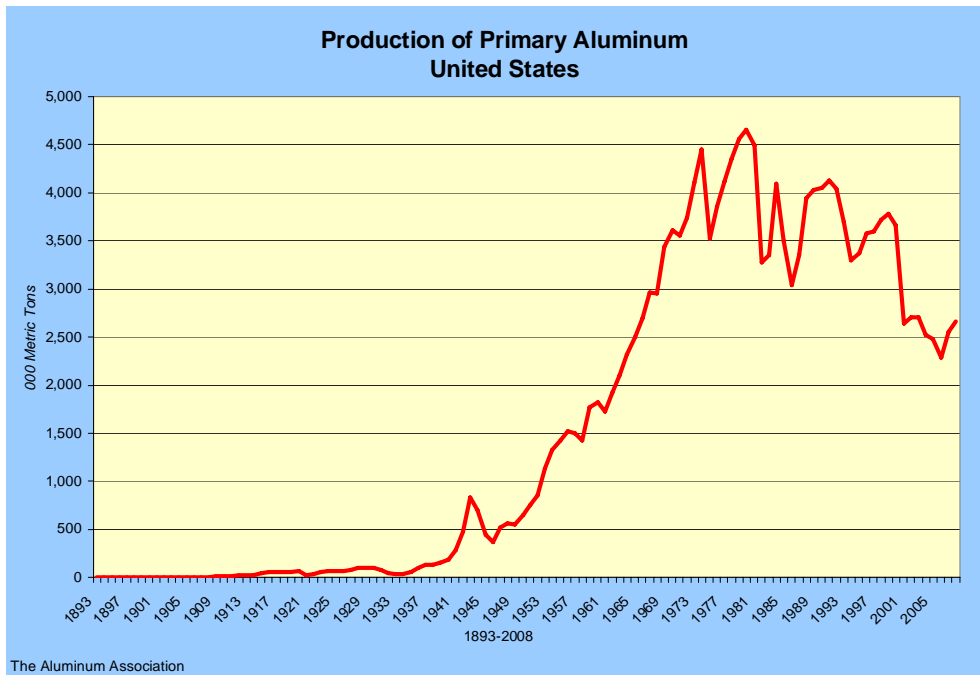
[Table 5: US and Canada Primary Production 1893-present](#)

[Table 6: US and Canada Primary Aluminum Capacity](#)

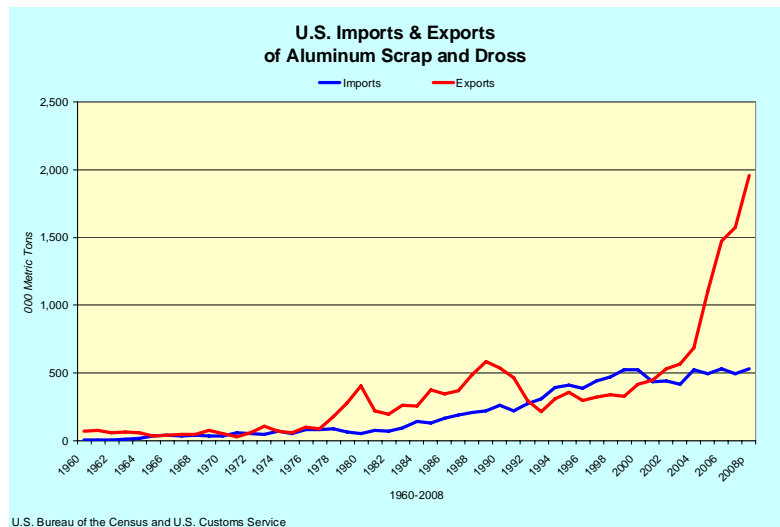
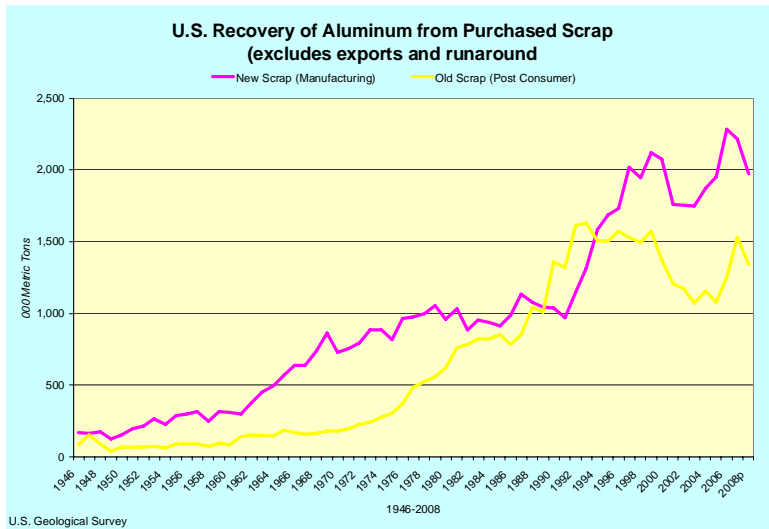
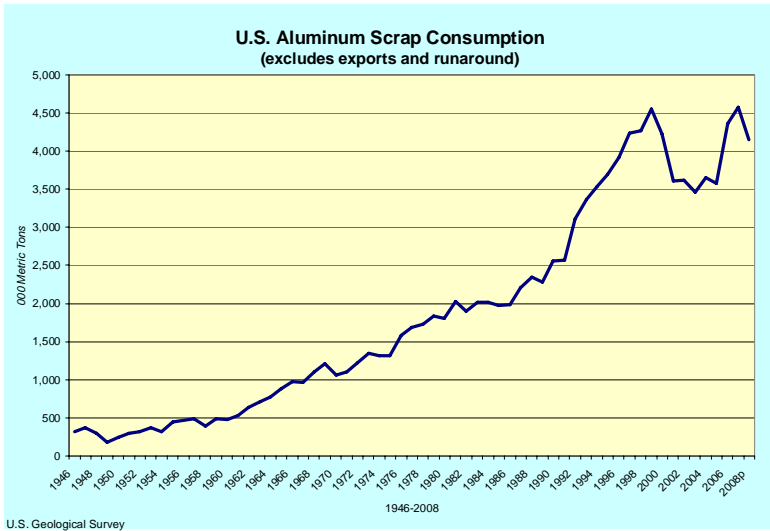
[Table 7: US Aluminum Recycling 1946-present](#)

[Table 8: US Used Beverage Can Recycling 1972-present](#)

Aluminum Supply



Aluminum Supply



Aluminum Industry Shipments

Shipments of Ingot and Semi-fabricated Products

Net shipments¹ in 2008, including imports, amounted to 22,150 million pounds, decreasing 10.2 percent from the 24,657 million pounds shipped in 2007. Shipments of **sheet and plate** were estimated at 9,059 million pounds, decreasing 4.4 percent from 2007 while shipments of bare foil declined 6.8 percent to 1,431 million pounds. **Extruded products** (shapes rod and tube) shipments totaled 3,563 million pounds, down 11.5 from 2007.

Net Ingot for castings, exports and destructive uses dropped 16.0 percent in 2008 to a total of 6,890 million pounds.

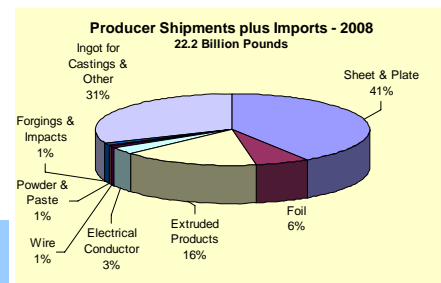
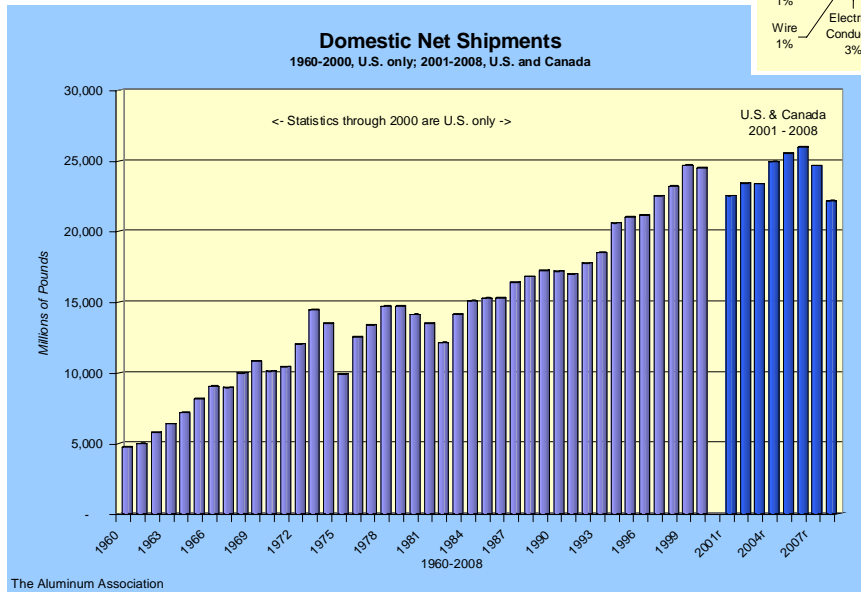
Flat rolled products including foil represented 47.4 percent of total shipments in 2008 (44.6% in 2007). Ingot for castings, destructive uses and exports accounted for 31.1 percent (33.3% in 2007) and extrusions and tube shipments were 16.1 percent (16.3% in 2007) of total shipments.

Total shipments to U.S. and Canadian **consumers**, at 18,876 million pounds, decreased 12.0 percent from the 2007 total of 21,457 million pounds. **Net exports**² rose 2.3 percent to an estimated 2008 level of 3,274 million pounds.

See

[Table 9: Industry Net Shipments 1960-present](#)

[Table 10: Producer Net Shipments 1946-present](#)



1) U.S. and Canadian producer net shipments of aluminum ingot and mill products plus imports. Net shipments exclude intra-industry shipments for further fabrication.

2) Based on published government statistics derived from Customs documentation. Figures contain estimated adjustments to account for apparent misclassifications. North America statistics exclude U.S./Canada cross-border trade.

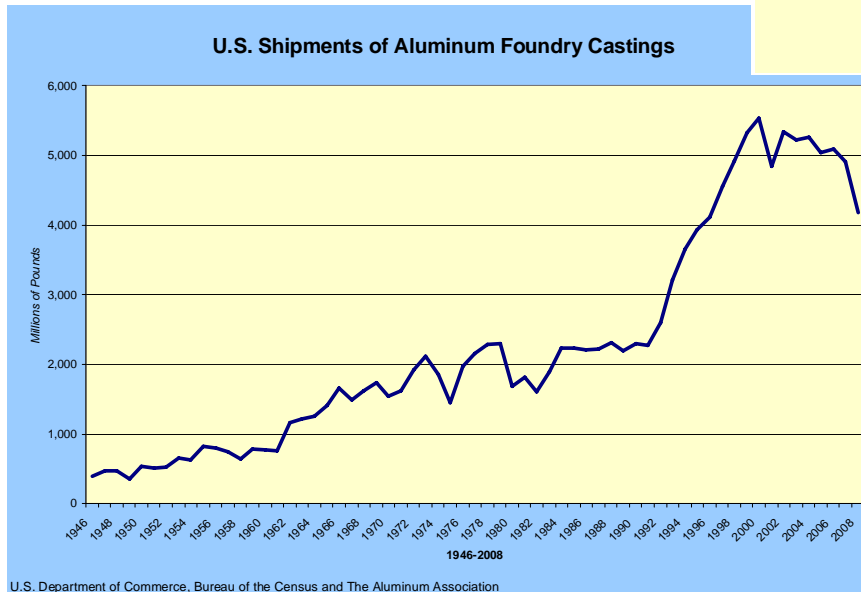
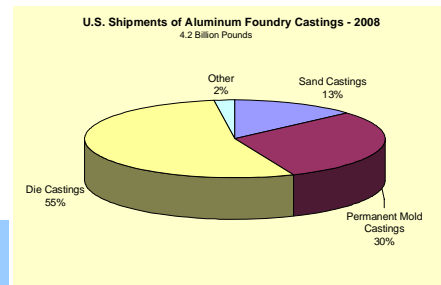
Aluminum Industry Shipments

U.S. Foundry Castings

There were an estimated 4,178 million pounds of aluminum **foundry castings** shipped by **U.S. producers** during 2008, a drop of 14.9 percent from the previous year. Shipments of **die castings** totaled 2,265 million pounds during 2008, decreasing 18.6 percent from the 2007 total of 2,783 million pounds.

Shipments of **permanent mold castings** totaled 1,256 million pounds, declining 7.4 percent from the 2007 total of 1,356 million pounds. Shipments of **sand castings** totaled 561 million pounds, a decrease of 19.2 percent from 694 million pounds recorded in 2007.

See [Table 11: Foundry Castings Shipments 1946-present](#)



Market Shipment Highlights

CoC o

Total U.S. and Canadian **industry shipments**¹ of aluminum in 2008 decreased to a level of 22,150 million pounds, down 10.2 percent from the revised total of 24,657 million pounds in 2007. Total **domestic shipments** declined 12.0 percent to a total of 18,876 million pounds while **exports**² increased 2.3 percent to 3,274 million pounds.

The **Transportation** sector is the largest market for aluminum, representing 28.1 percent of total aluminum demand. During 2008, shipments of aluminum for transportation related applications fell 21.0 percent to a volume of 6,228 million pounds. Included in this market are passenger cars, trucks and buses, trailers and semi-trailers where shipments decreased 23.2 percent to a 2008 total of 5,359 million pounds.

The **Containers and Packaging** sector was the second largest market in 2008 with a volume of 4,918 million pounds, or 22.2

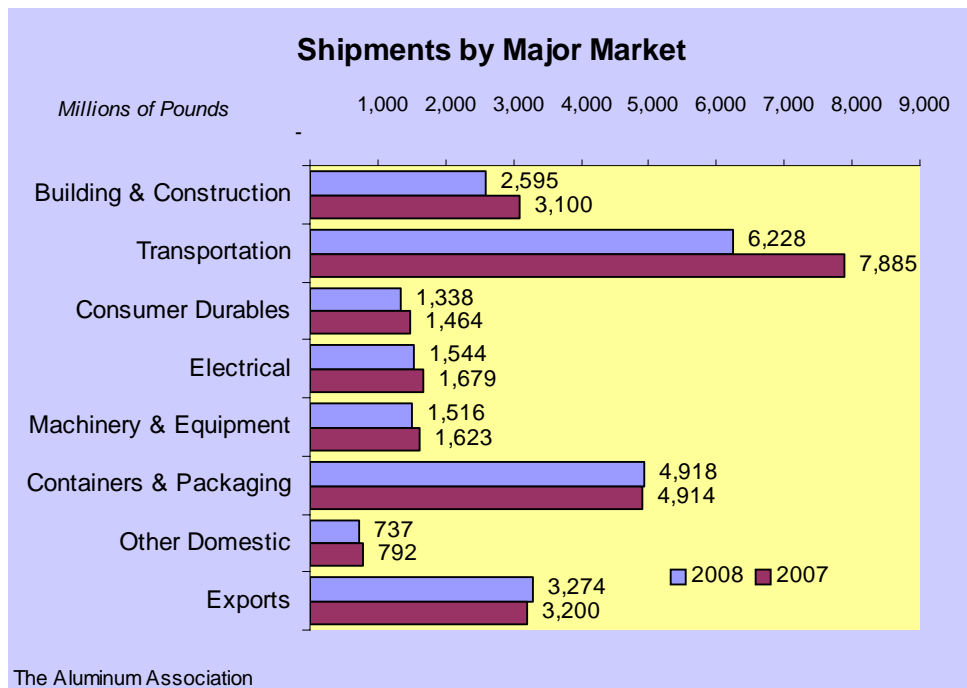
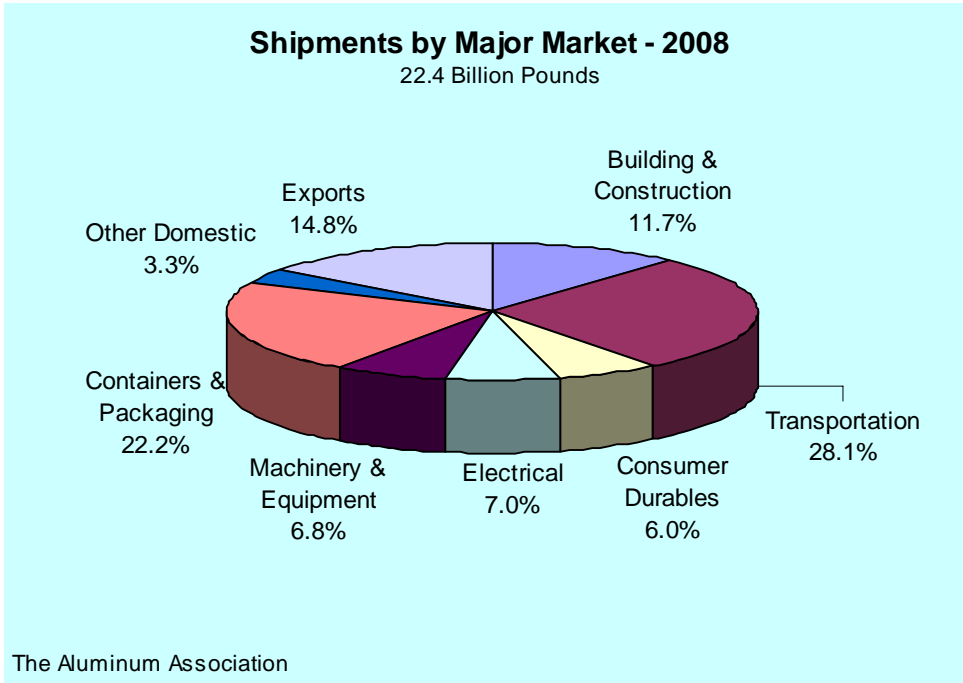
percent of total shipments. Shipments of sheet for metal cans rose nine-tenths of one percent to a total of 3,944 million pounds. Semi-rigid food containers, household and institutional foil, caps & closures, collapsible tubes and many flexible packaging uses are other important components in this market. In total, shipments to these markets during 2008 declined 3.3 percent from the previous year.

Building and Construction, at 2,595 million pounds, was 16.3 percent below 2007. Included in this market are residential, industrial, commercial, farm and highway applications as well as manufactured housing. Shipments for use in windows, doors and screens, totaling 596 million pounds, fell 20.4 percent from the 2007 total of 749 million pounds while shipments to residential siding, soffits and facias applications decreased 18.3 percent from the previous year to 425 million pounds.

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Market Shipment Highlights



Aluminum Foreign Trade Statistics

United States

According to reports published by the U.S. Department of Commerce, Bureau of the Census, U.S. imports of aluminum ingot and mill (semi-fabricated) products totaled 8,959 million pounds in 2008, accounting for 39.9 percent of the U.S. aluminum supply. Total imports, including aluminum scrap, decreased 5.7 percent to 10,129 million pounds while U.S. exports rose 13.6 percent to 7,619 million pounds.

Imports of aluminum (primary and secondary) ingot decreased 4.7 percent to 6,197 million pounds in 2008, as compared with 6,506 million pounds the previous year. Imports of semi-fabricated products decreased to 2,761 million pounds, declining 12.1 percent from 2007. Imports of aluminum scrap were up 7.5 percent to 1,171 million pounds.

Exports of aluminum ingot totaled 782 million pounds in 2008, a decrease of 5.0 percent from the reported 2007 total of 824 million pounds. Exports of semi-fabricated products rose 5.0 percent to 2,523 million pounds while exports of aluminum scrap jumped 24.0 percent to 4,314 million pounds.

Net imports (imports less exports) totaled 2,510 million pounds in 2008, falling 56.2 percent below the previous year. During the period 1998-2008, net imports have declined at an annual rate of 1.4 percent.

Canada

Canada is a net exporter of aluminum, reporting exports of aluminum ingot, mill products and scrap at 8,002 million pounds in 2008, a decline of nine-tenths of one percent from the previous year. Exports to the United States totaled 6,527 million pounds, accounting for 81.6 percent of the total.

According to the Canadian Customs Service and Statistics Canada, exports of aluminum (primary and secondary) ingot rose 1.3 percent in 2008 to a total of 5,582 million pounds. Exports of semi-fabricated products totaled 1,374 million pounds that same year, a decrease of 11.1 percent. Exports of aluminum scrap and dross rose 3.0 percent in 2008 to 1,046 million pounds.

Aluminum imports were reported by the Canadian government at 1,934 million pounds, a decline of 5.2 percent from the 2007 total of 2,039 million pounds. During the year 2008, imports of semi-fabricated products decreased 5.2 percent from the previous year to a total of 1,279 million pounds – representing 66.1 percent of the total. Imports of aluminum ingot declined by 8.6 percent to 281 million pounds while imports of aluminum scrap decreased 2.1 percent to 374 million pounds.

During 2008, net exports rose six-tenths of one percent over the previous year to a total of 6,069 million pounds.

Mexico

Mexico's *Instituto del Aluminio* reported imports of aluminum ingot, scrap and mill products totaled 1,087 million pounds during 2008, an increase of 14.2 percent over the previous year's total of 952 million pounds. Imports of aluminum (primary and secondary) ingot increased 18.2 percent over the previous year to 278 million pounds while imports of semi-fabricated products jumped 22.2 percent in 2008 to 635 million pounds. Imports of aluminum scrap and dross decreased 11.8 percent in 2008 to 174 million pounds.

Exports totaled 388 million pounds during 2008, increasing 6.0 percent over the 2007 total of 366 million pounds. Of that, exports of aluminum ingot totaled of 64 million pounds in 2008, an increase of 12.8 percent over the 2007 total of 45 million pounds and exports of aluminum scrap and dross increased 5.9 percent to 324 million pounds. Exports of semi-fabricated products decreased 11.6 percent to a 2008 total of 14 million pounds.

Imports of aluminum (excluding finished goods) exceeded exports by 700 million pounds in 2008, up 19.3 percent over the 2007 total of 586 million pounds.

See

[Table 14: US Imports and Exports by Commodity 1960-present](#)

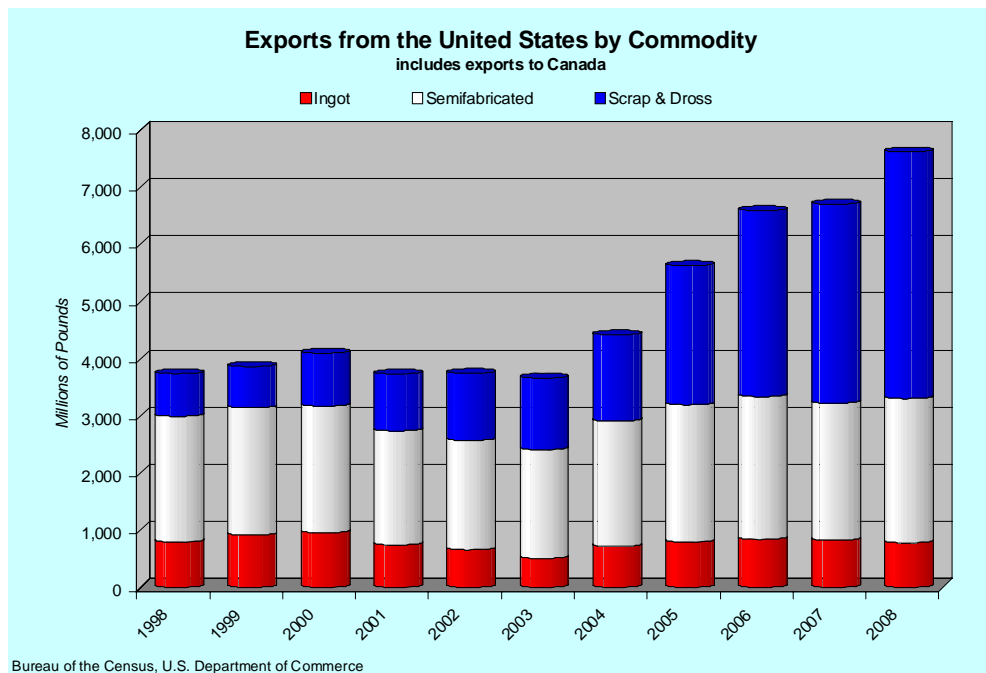
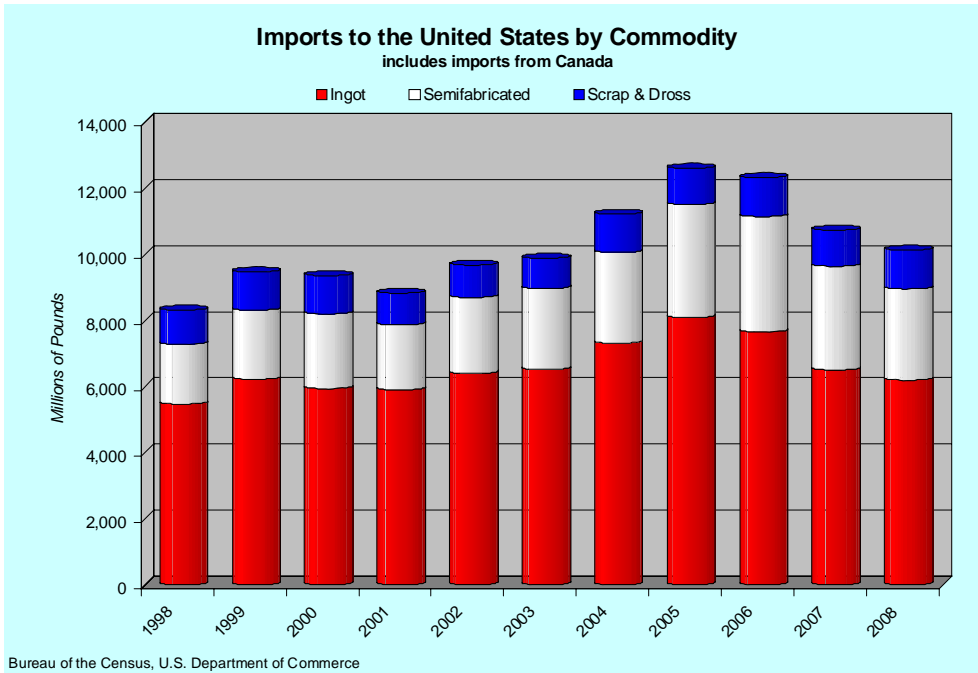
[Table 14a: US Imports and Exports by Country](#)

[Table 15: Canada Imports and Exports by Commodity 1995-present](#)

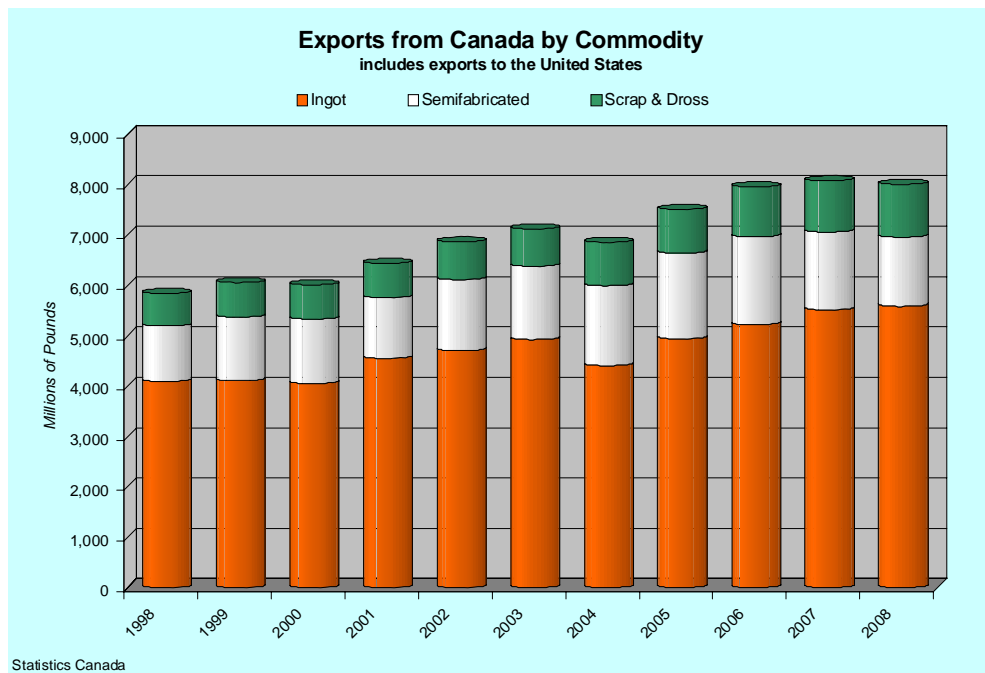
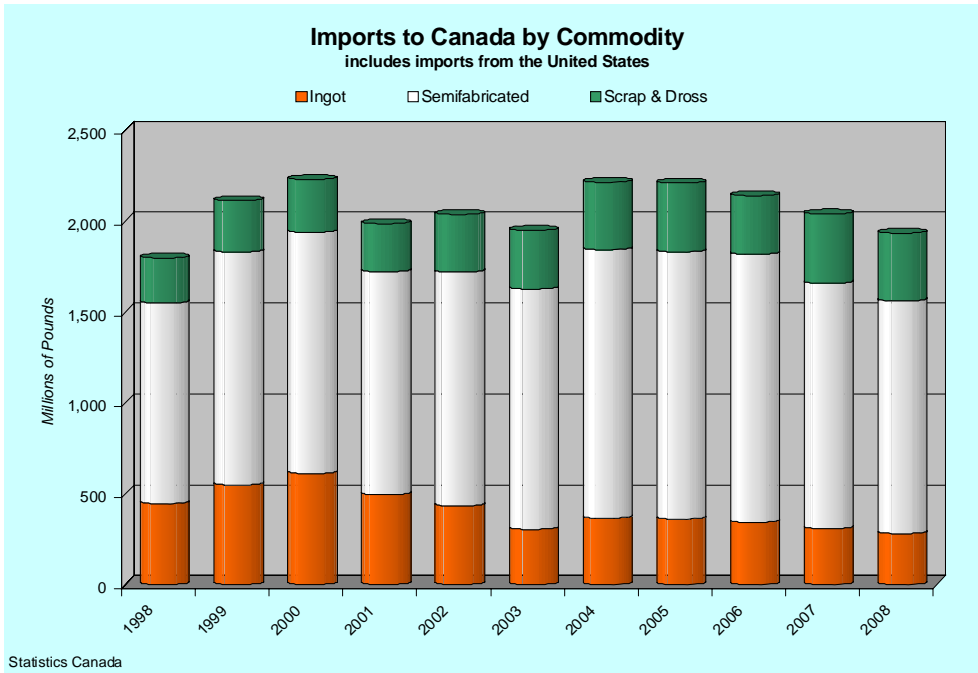
[Table 15a: Canada Imports & Exports by Country](#)

[Table 16: Mexico Imports and Exports by Commodity 1998-present](#)

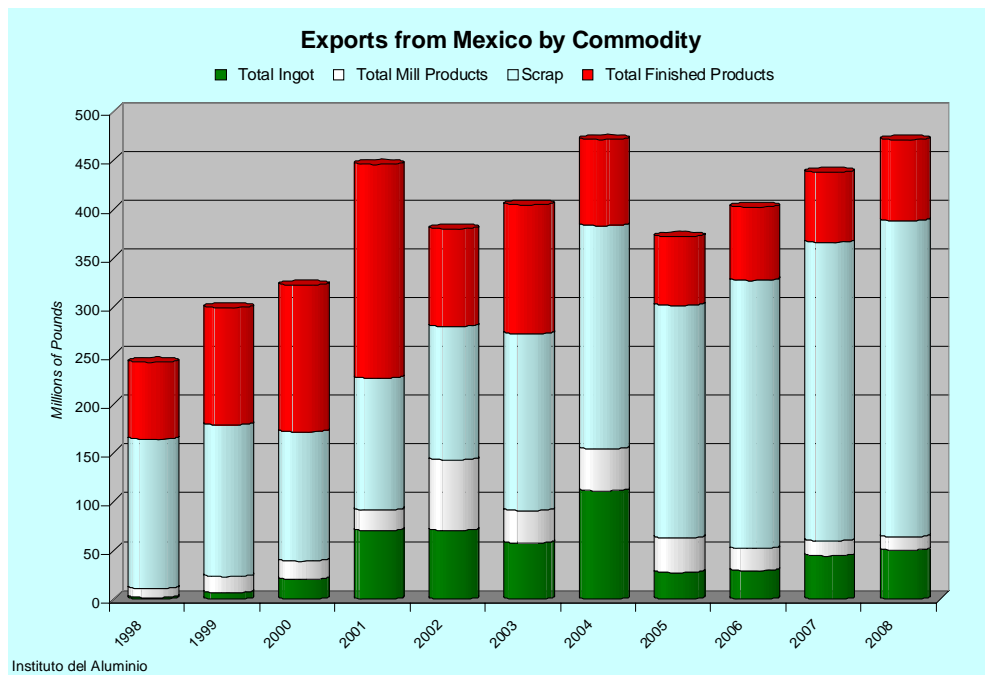
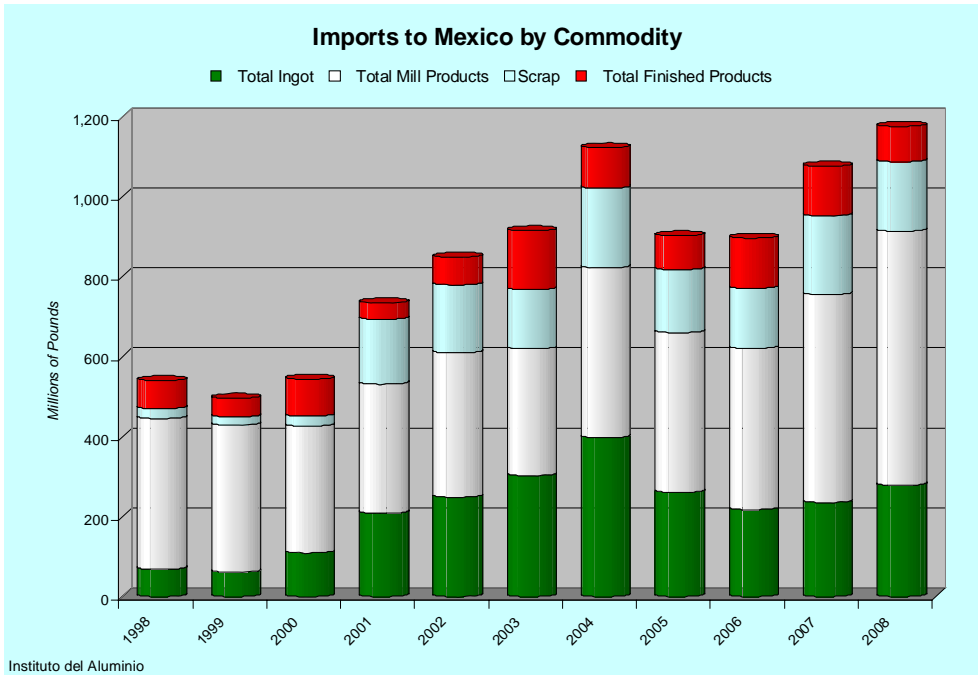
Aluminum Foreign Trade Statistics



Aluminum Foreign Trade Statistics



Aluminum Foreign Trade Statistics



World Aluminum Statistics

The aluminum industry is international by its very nature. From the extraction of its basic source material at bauxite sites located in a number of countries throughout the world to its fabrication and distribution in every nation on earth, the aluminum industry should be viewed in a world-wide perspective. This section attempts to provide data on two of the key aspects of world aluminum, world primary aluminum production and the apparent per capita consumption of aluminum for selected countries.

World Primary Production

Estimated world production of primary aluminum totaled 39,346

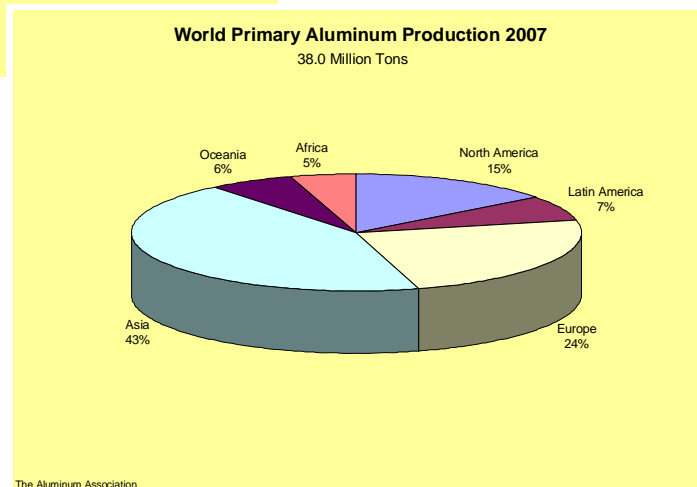
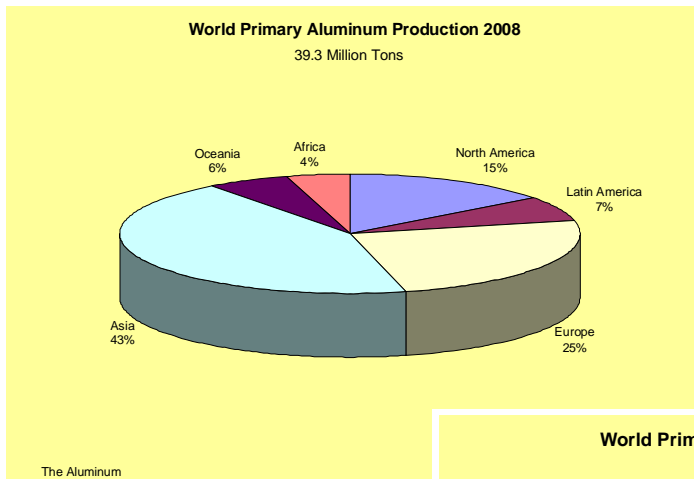
thousand metric tons in 2008, up 3.7 percent over the revised estimate of 37,951 thousand tons in 2007. Over the decade 1998-2008, world production increased at an annual growth rate of 5.2 percent with the most significant growth occurring in China.

China, accounting for over 33.5 percent of global output, was the largest maker of primary aluminum during 2008, producing a reported 13.2 million metric tons during 2008, an increase of 4.7 percent over the previous year. Production in Russia during 2008, totaling 4,187 thousand tons, accounted for 10.6 percent of the world total. Production of primary aluminum in North America rose

2.5 percent during 2007 to a total of 5,778 thousand tons. Canada ranks third in global production with an output of 3,120 thousand tons while the United States ranks fourth, producing 2,658 thousand tons.

In total, Asia accounted for 43.6 percent of world primary production in 2008 while Europe (including Russia) made up 24.7 percent of global output. North America, including the United States and Canada produced 14.7 percent of the total. The remaining production includes Latin America (6.6 percent), Oceania (5.8 percent), and Africa (4.4 percent).

See - [Table 17: World Primary Production 1960-present](#)



World Aluminum Statistics

Per Capita Consumption – Selected Countries

The Aluminum Association, in conjunction with industry associations in foreign countries and, in some instances,

appropriate government agencies, conducts a voluntary survey to compile uniform statistical data showing total supply and apparent consumption. Total supply for an individual country consists of primary production, imports, and

secondary recovery. Apparent consumption is equal to the sum of these sources of total supply less exports and inventory changes.

Argentina	Netherlands
Australia	New Zealand
Austria	Norway
Bahrain	Panama
Belgium	Philippines
Bulgaria	Poland
Brazil	Portugal
Cameroon	Romania
Canada	Russia
China	El Salvador
Denmark	Serbia
Estonia	Slovenia
Finland	South Africa
France	South Korea
Germany	Spain
Greece	Sweden
Iceland	Switzerland
India	Taiwan
Ireland	Turkey
Italy	Ukraine
Japan	United Kingdom
Latvia	United States
Lithuania	Venezuela
Mexico	

The format for compiling total supply and apparent consumption data is shown below. In order to develop a basis for showing relative aluminum usage by country and to provide a measure of trend over time, per capita consumption data is shown below.

Per Capita Aluminum Consumption Formula

1. + Primary aluminum production
2. ± Government stockpile adjustment
3. + Imports of ingot
4. + Imports of mill products (aluminum alloy weight)
5. + Recovery of secondary aluminum alloys (from domestic or imported scrap)
6. - Exports of ingot
7. - Exports of mill products (aluminum alloy weight)
8. = Apparent aluminum consumption
9. + Beginning year inventory
10. ± Ending year inventory
11. ± Inventory change
12. = Aluminum consumption (with inventory change)
13. Mid-year population
14. = Per capita consumption (kg.) (without inventory change)
15. = Per capita consumption (kg.) (with inventory change)

See - [Table 18: World Aluminum Consumption - selected countries 1979-present](#)

Glossary

ACSR AND ALUMINUM CABLE, BARE – Aluminum stranded conductor reinforced by a core of steel (ACSR), or aluminum (ACAR); or any other bare stranded aluminum conductor.

ATOMIZED POWDER – Powder produced by blowing or asperating molten metal through an orifice.

CASTING – A product made by pouring molten metal into a mold of a desired shape and letting it solidify.

CONDUCTOR REDRAW ROD (CONTINUOUS-CAST OR ROLLED) – A solid round product that is long in relation to cross section, 0.375" or greater in diameter, produced by continuous casting followed by size-rolling, or by rolling from D.C. cast ingot, suitable for drawing into electrical conductor wire.

DIRECT MILL USES – Finished product applications supplied for the most part directly from mills rather than from distributors or jobber warehouses.

DISTRIBUTOR – Warehouses and sells a number of mill products to a wide variety of customers.

DRAWING STOCK – (Redraw Rod) See Conductor or Nonconductor Redraw Rod.

DRAWN TUBE – A hollow product that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape, and brought to final dimensions by drawing.

DROSS AND SKIMMINGS – The mixture of oxides and other impurities which float to the surface of molten aluminum and is skimmed off.

EXTRUDED PIPE AND TUBE – A hollow product, formed by extruding, that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape.

EXTRUDED ROD AND BAR – A solid product, produced by extruding (sometimes brought to final dimensions by drawing), that is long in relation to cross section, which is round, square, rectangular, hexagonal, or octagonal in shape and 0.375" or greater in diameter or in at least one perpendicular distance between parallel faces.

EXTRUSION INGOT (BILLET) – A solid or hollow cast form, usually cylindrical, suitable for extruding.

FLAKED POWDER – Powder consisting of flat or scale-like particles of a thickness small compared with other dimensions, produced by milling in the presence of a lubricant.

EXTRUDED SHAPES – A product produced by extruding, that is long in relation to its cross-sectional dimensions and has a cross section other than that of rod and bar and pipe and tube.

FOIL – A flat rolled product, rectangular in cross section, of thickness less than 0.0079".

FORGINGS (EXCLUDING IMPACT EXTRUSIONS) – A product worked to a predetermined shape by one or more processes such as hammering, upsetting, pressing, etc.

IMPACTS (EXCLUDING COLLAPSIBLE TUBES AND CANS) – A product formed in a confining die from metal slug, usually cold, by rapid single stroke application of force through a punch, causing the metal to flow around the punch and/or through an opening in the punch or die.

INTEGRATED PRODUCER (OR SUPPLIER) – For statistical reporting, a company which produces primary aluminum ingot in the United States and produces mill products from it.

METALLURGICAL/DESTRUCTIVE USES – Applications wherein, because of the way it is used, aluminum either loses its identity or is lost and cannot be recovered. Major uses include the deoxidizing of steel and reduction of ferroalloys; steel and other nonferrous metal alloys; steel coating; and such other applications as chemicals and catalysts.

MILL (SEMI-FABRICATED) PRODUCTS – Metal that has been fashioned into an intermediate or semi-fabricated form in preparation for making a finished product. Example: sheet, a mill product, is used to make residential siding, a finished product.

NET SHIPMENTS – Excludes intra-industry shipments for further fabrication. It is the most accurate measure of industry output to markets because it eliminates duplication. Reported receipts of aluminum for further processing are subtracted.

NONCONDUCTOR REDRAW ROD (CONTINUOUS-CAST OR ROLLED) – A solid round product that is long in relation to cross section, 0.376" or greater in diameter, produced by continuous casting followed by size-rolling, or by rolling from D.C. cast ingot, suitable for drawing into nonconductor wire.

NONINTEGRATED FABRICATOR (OR SUPPLIER) – For statistical reporting, a U.S. mill product fabricator which is not affiliated with a domestic primary ingot producer.

OTHER INGOT AND MOLTEN METAL, PRIMARY – For statistical purposes, a cast form other than extrusion ingot (or molten metal), shipped by an integrated producer or nonintegrated fabricator from a company-owned facility not exclusively devoted to producing secondary ingot.

OTHER INGOT AND MOLTEN METAL, SECONDARY – For statistical purposes, a cast form other than extrusion ingot (or molten metal), principally produced from aluminum scrap to specification by secondary smelters (or others at a facility exclusively devoted to producing ingot from scrap for sale); excludes remelt scrap ingot (RSI) which is considered scrap until remelted and cast into specification ingot.

OTHER ROD AND BAR (CONTINUOUS-CAST OR ROLLED) – A solid, round, square, rectangular, hexagonal, or octagonal in shape produced by continuous casting or rolling, that is long in relation to cross section, 0.375" or greater in diameter or in at least one perpendicular distance between parallel faces; other than redraw rod and D.C. cast ingot.

PASTE – A blend of powder or flake with a thinner or plasticizer.

PLATE, NONHEAT-TREATABLE – A flat rolled product, rectangular in cross section, 0.250" or greater in thickness, which can be strengthened only by cold work.

PLATE, HEAT-TREATABLE – A flat rolled product, in 2000, 6000, or 7000 alloy series (except 7072), rectangular in cross section, 0.250" or greater in thickness, which can be strengthened by a suitable thermal treatment.

POWDER – An aggregate of discrete particles of aluminum, substantially all of which are finer than 1,000 microns (minus 18 mesh).

RECEIPTS – The metal physically received by a company for further processing.

REIMPORTS – Mill products that have been exported, partially processed outside the United States, and imported back to the United States while still in a mill product stage.

SCRAP – Includes: **New** (prompt industrial) scrap, purchased, imported, or treated on toll, in all forms; and **Old** (post consumer or obsolete) scrap, including sweated pig; also remelt scrap ingot (RSI) which is considered scrap until remelted and cast into specification ingot.

SECONDARY SMELTER – A company whose facilities are exclusively devoted to producing ingot or molten aluminum from scrap.

SEMI-FABRICATED PRODUCTS – See Mill Products.

SHEET, NONHEAT-TREATABLE – A rolled product, flat or coiled, rectangular in cross section, of 0.0079" thickness but under 0.250" thickness, which can be strengthened only by cold work.

SHEET, HEAT-TREATABLE – A rolled product, in 2000, 6000, or 7000 alloy series (except 7072), flat or coiled, rectangular in cross section, of 0.0079" thickness but under 0.250" thickness, which can be strengthened by a suitable thermal treatment.

WELDED TUBE – A hollow product that is long in relation to its cross section, which is round, square, rectangular, hexagonal, octagonal, or elliptical in shape, produced by forming and seam-welding sheet longitudinally. Included with aluminum sheet.

WIRE, BARE, CONDUCTOR AND NONCONDUCTOR – A solid wrought product that is long in relation to its cross section, which is square, round, rectangular, hexagonal, or octagonal in shape, whose diameter or greatest perpendicular distance between parallel faces (except for flattened wire) is less than 0.375".

WIRE AND CABLE, INSULATED OR COVERED – Aluminum electrical conductor wire or stranded conductors that are insulated or covered.

Publications and Reports

The Aluminum Association's statistical programs provide industry information on primary aluminum production, new orders of mill products, industry shipments, end use market estimates, inventories, recycling and foreign trade on a monthly, quarterly and annual basis. Special surveys provide data on specific subjects such as primary capacity, flat roll capacity, safety, inventories and castings shipments. The Association's foreign trade reports are based on U.S. Department of Commerce data.

Industry Overview

Aluminum Statistical Review (Annual Fact Book)
Aluminum Highlights (Monthly)
Aluminum Situation (Monthly)
Summary of Producer Shipments and Inventories (Monthly)

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Shipments of Primary Aluminum by Form (Quarterly)

Mill Products

Index of Net New Order Receipts for Aluminum Mill Products (Monthly)
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Electrical Conductor Shipments (Monthly)
Extruded Products Shipments and Press Utilization (Monthly)
Flat Roll Capacity (Annual)
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Forging and Impacts Shipments (Monthly)
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End Use

Extrusion Shipments by End Use (Quarterly)
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Sheet and Plate Shipments by End Use (Quarterly)

Castings

U.S. Foundry Castings Shipments (Annual)
Canadian Foundry Castings Shipments (Annual)

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U.S. Aluminum Beverage Can Recycling (Annual)
New Can Stock (Class) Scrap Receipts (Monthly)
Used Beverage Can Reclamation (Monthly)

Foreign Trade

Summary of U.S. Imports and Exports (by Commodity), Monthly
Summary of Canada Imports and Exports (by Commodity), Monthly
U.S., Canada, & China Exports & Imports of Aluminum (By Commodity, by Country), Online Database

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