

Significant events affecting aluminum prices since 1958

1971-74	Price controls
1973-75	Organization of Petroleum Exporting Countries (OPEC) oil embargo and sharp recession
1986-88	Worldwide supply shortages
1991	Dissolution of the Soviet Union

Aluminum metal was first isolated by Hans Christian Oersted in 1825. As late as the early 1880's, it was considered to be a semiprecious metal and was sold in troyounce quantities; the retail price of aluminum metal was reported to be higher than that of silver. A commercially viable large-scale production method had yet to be developed. Domestic production levels during this period were in the 1,000- to 3,000-troy-ounce range, and many uses were considered to be experimental (Mining Engineering, 1987). In 1886, formal patent applications were filed for the electrolytic reduction process for aluminum. This process, which came to be known as the Hall-Heroult process, led to the mass commercial production of aluminum metal. As the process was developed and refined, production levels increased rapidly. By 1895, domestic production levels had reached 1 million pounds. As production levels continued to increase, domestic producers kept the price of aluminum low to encourage its use by consumers. In the early 1900's, they

held aluminum metal prices at a low steady level to compete against copper in the electrical industry (U.S. Department of Commerce, 1956, p. II.1-II.4).

With the outbreak of World War I in Europe in 1914, shortages of aluminum metal began to appear, and prices began to rise dramatically because of the increased demand for aluminum in war materials, which included airplanes and munitions. In March 1918, the President imposed price controls on aluminum metal, and the use of aluminum for military equipment and essential civilian needs was placed under Government regulation (Hill, 1921).

The 1920's saw the demand for aluminum metal expanding, especially in the growing domestic automobile industry. The advent of the Great Depression, however, brought about a general decrease in demand for aluminum in all sectors of the economy, especially in the automobile and aircraft industries.

In 1939, the production and consumption of aluminum shattered all previous records, enhanced by the preparations for national defense and the expanding conflicts in Europe and Asia. The aviation industry alone consumed twice the quantity of aluminum as in 1937, the previous peak year. In 1940, producers lowered the price for aluminum to give the metal a better price relation to competing materials. During the war years, aluminum prices were placed under formal control and held at \$0.15 per pound (U.S. Department of Commerce, 1956, p. IV.6).

After the war, the aluminum industry benefited from its price advantage over copper and other nonferrous metals. Aluminum, which was cheaper and more readily available than some other metals, was used in new applications and made substantial inroads in the construction and transportation industries.

Rearmament programs during the Korean conflict increased the demand for aluminum. In 1951, the allocation of aluminum supplies and the price of aluminum metal were again placed under Government control (Blue, 1954, p. 137-138). At the end of the conflict, domestic aluminum producers began an aggressive program to develop civilian uses for aluminum metal.

During the 1960's, aluminum prices remained relatively stable in the low- to mid-\$0.20-per-pound range. Capacity increases were able to keep pace with the continuous growth in demand during this period.

In the early 1970's, the price for aluminum, as well as for other metals, was controlled by the Cost of Living Council in an attempt to check inflation. As these controls were gradually removed during 1974, prices rose to reflect the increased cost of energy brought about by the surge in world oil prices. In the late 1970's and throughout the 1980's, aluminum prices, for the most part, reflected the law of supply and demand. During the early 1980's, the aluminum industry suffered from a period of oversupply, high inventories, excess capacity, and weak demand, causing aluminum prices to tumble. By 1986, however, excess capacity had been permanently closed, inventories were low, and the worldwide demand for aluminum made a dramatic surge upward. This extremely tight supply-demand situation, which continued throughout 1987 and 1988, brought about a dramatic increase in aluminum prices.

During the 1990's, however, the speculative effect of the futures market began to exert its presence on aluminum prices. Prices were not only reacting to the laws of supply and demand, but also to the perceived direction of the market as reflected on the futures exchanges.

In the early 1990's, the major influence on aluminum prices was the dissolution of the Soviet Union. To generate hard currency, large quantities of Russian aluminum ingot entered the world market. Unfortunately, the aluminum market had just entered an economic downturn and was unable to absorb the Russian material. This period of oversupply, decreasing demand, and increasing inventories depressed world aluminum prices.

By the mid-1990's, production cutbacks, increased demand, declining inventories, and the perceived improvement in the world market led to a dramatic rebound in aluminum prices. Prices began to cycle downward again during the late 1990's as the economic crisis in the Asian market exerted pressure on the prices of several commodities, including aluminum. Once again, the aluminum market was entering a period of oversupply. The perceived downward influences of the Asian crisis, however, may have hastened the decline in prices before the actual oversupply condition occurred in the marketplace.

References Cited

- Blue, Delwin, 1954, Aluminum, *in* Minerals Yearbook 1951, v. I: U.S. Bureau of Mines, p. 128-150.
- Hill, J.M., 1921, Bauxite and aluminum, *in* Metals, pt. I *of* Mineral resources of the United States 1918: U.S. Geological Survey, p. 513-526.
- Mining Engineering, 1987, Aluminum—The first 100 years and a look to the future: Mining Engineering, v. 39, no. 3, March, p. 178-180.
- U.S. Department of Commerce, 1956, Materials Survey— Aluminum: Compiled by the U.S. Department of Commerce for the Office of Defense Mobilization, 320 p.

Annual Average Primary Aluminum Price

(Dollars per pound¹)

Year	Price	Year	Price	Year	Price	Year	Price
1850	17.00	1888	NA	1926	0.270	1964	0.237
1851	NA	1889	NA	1927	0.254	1965	0.245
1852	NA	1890	NA	1928	0.243	1966	0.245
1853	NA	1891	NA	1929	0.243	1967	0.250
1854	NA	1892	NA	1930	0.238	1968	0.256
1855	NA	1893	NA	1931	0.233	1969	0.272
1856	NA	1894	NA	1932	0.233	1970	0.287
1857	NA	1895	0.587	1933	0.233	1971	0.290
1858	NA	1896	0.507	1934	0.234	1972	0.250
1859	NA	1897	0.390	1935	0.200	1973	0.264
1860	NA	1898	0.306	1936	0.205	1974	0.431
1861	NA	1899	0.327	1937	0.199	1975	0.348
1862	NA	1900	0.327	1938	0.200	1976	0.412
1863	NA	1901	0.330	1939	0.200	1977	0.478
1864	NA	1902	0.330	1940	0.187	1978	0.510
1865	NA	1903	0.330	1941	0.165	1979	0.707
1866	NA	1904	0.350	1942	0.150	1980	0.761
1867	NA	1905	0.350	1943	0.150	1981	0.598
1868	NA	1906	0.358	1944	0.150	1982	0.468
1869	NA	1907	0.450	1945	0.150	1983	0.683
1870	NA	1908	0.287	1946	0.150	1984	0.611
1871	NA	1909	0.220	1947	0.150	1985	0.488
1872	9.00	1910	0.223	1948	0.157	1986	0.559
1873	NA	1911	0.201	1949	0.170	1987	0.723
1874	NA	1912	0.220	1950	0.177	1988	1.101
1875	NA	1913	0.236	1951	0.190	1989	0.878
1876	NA	1914	0.186	1952	0.194	1990	0.740
1877	NA	1915	0.340	1953	0.209	1991	0.595
1878	NA	1916	0.607	1954	0.218	1992	0.575
1879	NA	1917	0.516	1955	0.237	1993	0.533
1880	NA	1918	0.335	1956	0.240	1994	0.712
1881	NA	1919	0.321	1957	0.254	1995	0.859
1882	NA	1920	0.327	1958	0.248	1996	0.713
1883	NA	1921	0.221	1959	0.247	1997	0.771
1884	NA	1922	0.187	1960	0.260	1998	0.655
1885	NA	1923	0.254	1961	0.255		
1886	NA	1924	0.270	1962	0.239		
1887	8.00	1925	0.272	1963	0.226		

NA Not available

¹ To convert to dollars per metric ton, multiply by 2,204.62.

Note:

1850-94, in U.S. Geological Survey Minerals Yearbooks and predecessor volumes.

1895-98, 98%-pure aluminum, in American Bureau of Metal Statistics.

1899-1900, 99%-pure aluminum ingot, in American Bureau of Metal Statistics.

1901-04, 99.75%-pure aluminum ingots in 2,000-pound lots, *in* American Bureau of Metal Statistics.

1905, 99.75%-pure aluminum ingots in 2,000-pound lots, in American Metal Market/Metal Statistics, 1955.

1906-19, 99%-pure No. 1 aluminum ingots, in American Metal Market/Metal Statistics, 1955.

1920-21, 98%- to 99%-pure aluminum, in American Metal Market/Metal Statistics, 1955.

1922-28, 98%-pure aluminum metal, *in* American Metal Market/Metal Statistics, 1955.

1929-35, 99%-pure aluminum metal, in American Metal Market/Metal Statistics, 1955.

1936-54, 99%-plus pure aluminum virgin ingot, in American Metal Market/ Metal Statistics, 1955.

1955-56, 99%-pure aluminum virgin ingot, in Engineering & Mining Journal.

1957-71, 99.5%-pure unalloyed aluminum ingot, in Engineering & Mining Journal.

1972, 99.5%-pure unalloyed aluminum ingot, in Metals Week.

1973-82, U.S. market spot price, in Metals Week.

1983-92, 99.7%-pure aluminum ingot, U.S. market spot price, *in* Metals Week.

1993-98, 99.7%-pure aluminum ingot, U.S. market spot price, *in* Platt's Metals Week.