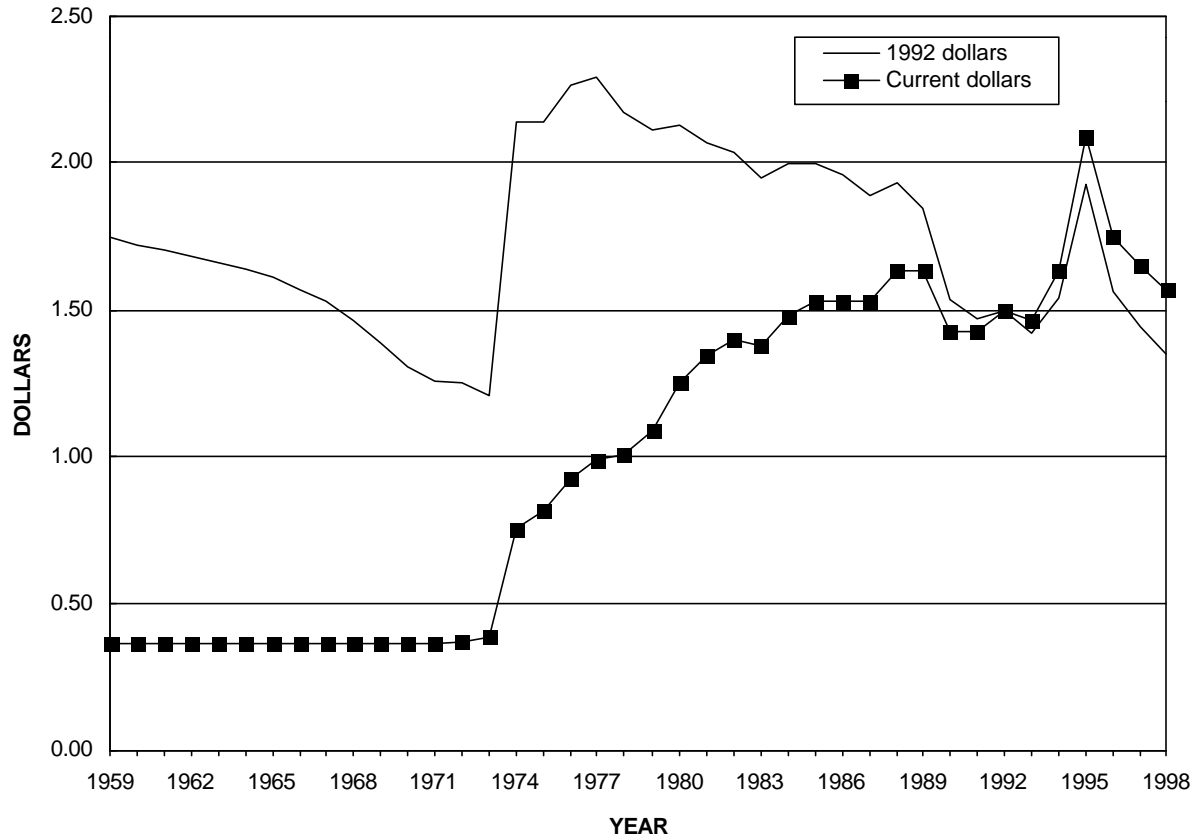


**Yearend Primary Magnesium Price**  
(Dollars per pound)



### Significant events affecting magnesium prices since 1958

1974-79	Increased energy costs and rapid inflation boost prices
1987-88	Tight supply of magnesium because of increased aluminum consumption
1991	Antidumping and countervailing duty investigations of magnesium imports from Canada initiated; dissolution of the Soviet Union
1994	Antidumping duty investigation initiated on magnesium imports from China, Russia, and Ukraine

Because of its military applications, World War II brought increased demand for magnesium. From 1941 through 1944 supplies of magnesium were allocated to manufacturers of military components. Seven Government-owned plants were brought on-stream during World War II to supply the military demand, and prices were controlled from 1943 through 1945 by the Office of Price Administration.

After the end of the War, the price controls were lifted, and

consumer demand was not great enough to sustain the war-time production levels. The rearmament program, between 1947 and 1953, brought a rise in consumption, but when military supplies were replenished, demand declined significantly, and the Government-owned plants were closed. Because the large demand was not sustained, prices after World War II remained constant.

In the 1950's and early 1960's magnesium prices remained

steady. Development of new rolling techniques and new alloys helped increase magnesium's usage, particularly in machinery and transportation equipment. By maintaining magnesium's price at a constant level, these industries were encouraged to use magnesium components. From 1964 through 1974, magnesium that had been acquired for the National Defense Stockpile in the early 1950's was released because magnesium was removed from the list of strategic and critical materials. This stockpile release provided an additional source of magnesium to supply the growing demand, which kept prices stable.

In 1974, a combination of increased energy costs, rising inflation rates, and the surge in use of aluminum beverage cans, which contain magnesium, led to a dramatic price increase. The price of magnesium nearly doubled within 1 year. Effects of rapid inflation rates continued to be felt through the remainder of the 1970's and into the early 1980's. As inflation rates decreased, the price of magnesium stabilized. In 1987 and 1988, magnesium supplies tightened as aluminum consumption increased. Because magnesium's principal use was as an alloying addition to aluminum, its use was directly related to aluminum consumption. In addition, high-purity magnesium alloys were developed as a measure to increase domestic consumption, particularly in automobiles. This supply shortage led to increased magnesium prices from 1987 to 1988.

In early 1990, North American production increased with the opening of a new 40,000-metric-ton-per-year plant in Canada (Metals Week, 1990). Much of the Canadian production was imported into the United States, alleviating the supply shortage. As a result, producers' quoted prices dropped in 1990, and by the end of 1991, press reports indicated that the actual selling price of primary magnesium was about \$1.10 to \$1.20 per pound. These low prices prompted one of the U.S. producers to request countervailing and antidumping duty investigations into imports of magnesium from Canada in September 1991; as a result of this action, magnesium imports from Canada essentially ceased.

With the dissolution of the former Soviet Union at the end of 1991, however, new suppliers entered the world market. Because of stockpiles that had been built up over many years, Russia and Ukraine had significant quantities of magnesium available to exchange for hard currency in the world market. In spite of the cessation of magnesium imports from Canada, U.S. imports were strong because of the increased supply of metal, particularly from Russia. As a result, U.S. prices dropped significantly in 1992, and a two-tier price system was established—a U.S. import price and a U.S. transaction price, which reflected the prices charged by the U.S. producers.

By mid-1992, the U.S. International Trade Commission (ITC) had established antidumping and countervailing duties on magnesium imported from Canada, so this material essentially was eliminated from the U.S. market (U.S. Department of Commerce, 1992). Imports of magnesium

from Canada were approximately replaced by imports from Russia, so the change in U.S. magnesium supplies was not significant, and as a result, the U.S. price moderated during 1992 and 1993.

Low unit values for magnesium imported from Russia and Ukraine prompted one U.S. producer to request an anti-dumping duty investigation of magnesium imports from these two countries, as well as from China, in mid-1994. This resulted in a cessation of magnesium imports from these countries. As domestic demand, mostly for magnesium components for automotive applications, continued to increase, the elimination of imported magnesium from Canada, China, Russia, and Ukraine led to tight U.S. supplies. As a result, the price began to increase.

Supplies remained tight through most of 1995, and by mid-year, the price escalated to its highest level since magnesium was first produced in 1915.

The ITC established final antidumping determinations in April 1995 for magnesium imports from China, Russia, and Ukraine (U.S. Department of Commerce, 1995a, b, c). Because the antidumping duty on Russian magnesium was established at 0% for all the large producers (as long as they imported the magnesium through specified importing companies), magnesium again could be imported from Russia, which had been the United States' largest magnesium supplier.

By 1996, the price began to drop as Russian magnesium returned to the U.S. market. At the same time, the countervailing duties on magnesium imports from Canada dropped enough so that Canada began exporting significant quantities of magnesium alloy into the United States. With these sources of imported material, the United States experienced an oversupply of magnesium, and prices dropped dramatically by yearend 1996. Also in 1996, the United States imported more magnesium than it exported for the first time in more than 20 years.

The United States continued to rely on imports of magnesium to meet its increasing demand, so U.S. prices continued to weaken slightly through 1998, although they were returning to more normal levels from the 1995 price spike. World supply in 1997 and 1998 also increased with production from a new 27,500-ton-per-year primary magnesium plant that had been commissioned at the end of 1996 in Israel (Platt's Metals Week, 1997).

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**Yearend Primary Magnesium Price**  
(Dollars per pound<sup>1</sup>)

Year	Price	Year	Price	Year	Price	Year	Price
1915	5.03	1936	0.26	1957	0.3625	1978	1.01
1916	4.13	1937	0.30	1958	0.3625	1979	1.09
1917	2.02	1938	0.30	1959	0.3625	1980	1.25
1918	1.81	1939	0.30	1960	0.3625	1981	1.34
1919	1.83	1940	0.27	1961	0.3625	1982	1.40
1920	1.60	1941	0.23	1962	0.3625	1983	1.38
1921	1.60	1942	0.23	1963	0.3625	1984	1.48
1922	1.60	1943	0.21	1964	0.3625	1985	1.53
1923	1.25	1944	0.21	1965	0.3625	1986	1.53
1924	1.07	1945	0.21	1966	0.3625	1987	1.53
1925	0.86	1946	0.21	1967	0.3625	1988	1.63
1926	0.80	1947	0.21	1968	0.3625	1989	1.63
1927	0.68	1948	0.21	1969	0.3625	1990	1.43
1928	0.55	1949	0.21	1970	0.3625	1991	1.43
1929	0.57	1950	0.25	1971	0.3625	1992	1.50
1930	0.48	1951	0.25	1972	0.3725	1993	1.46
1931	0.30	1952	0.27	1973	0.3825	1994	1.63
1932	0.29	1953	0.27	1974	0.75	1995	2.09
1933	0.28	1954	0.28	1975	0.82	1996	1.75
1934	0.26	1955	0.325	1976	0.92	1997	1.65
1935	0.26	1956	0.3525	1977	0.99	1998	1.57

<sup>1</sup> To convert to dollars per metric ton, multiply by 2,204.62.

Note:

1915-34, Producers' average selling prices for 99%-pure magnesium bars.  
 1935-56, Producer price for 99.8%-pure magnesium ingot, *in* Engineering & Mining Journal.  
 1957-91, Producer price for 99.8%-pure magnesium ingot, *in* American Metal Market.  
 1992, U.S. transaction price for 99.8%-pure magnesium ingot, *in* Metals Week.  
 1993-98, U.S. spot Western price for 99.8%-pure magnesium ingot, *in* Platt's Metals Week.