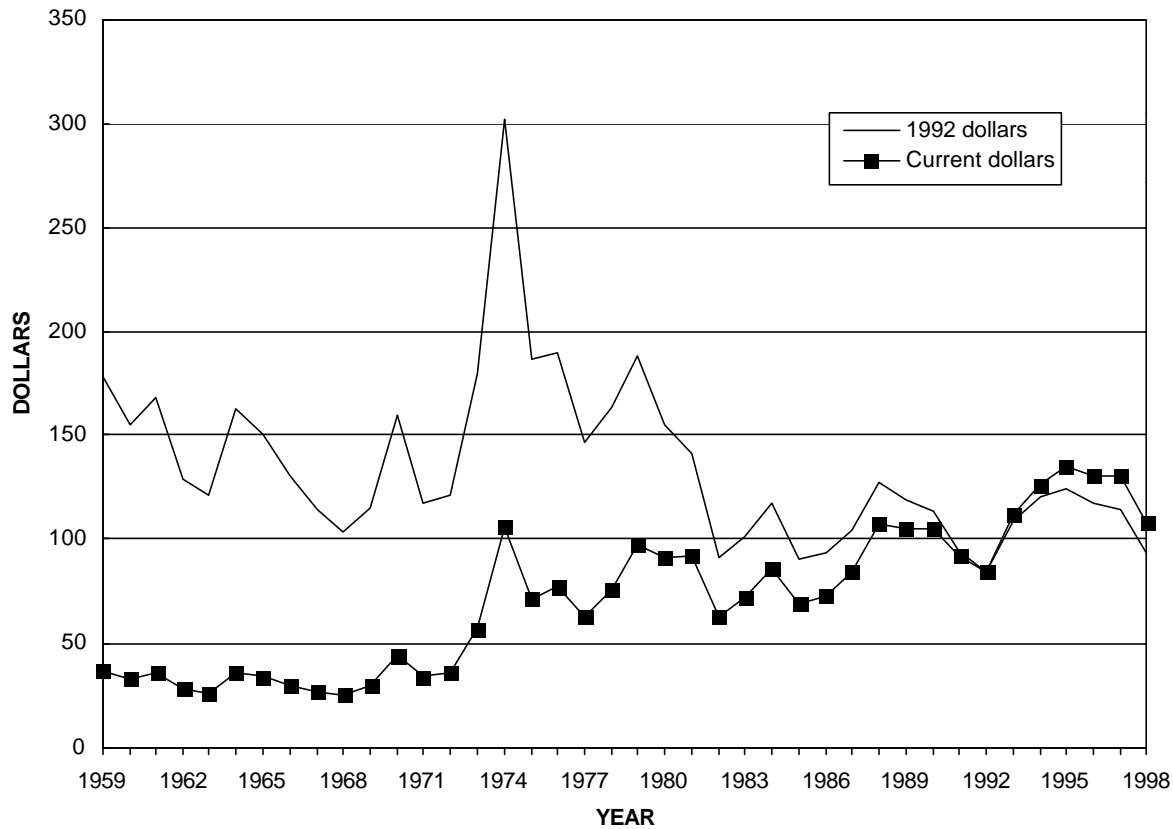


Annual Average U.S. Steel Scrap Prices
(Dollars per metric ton)



Significant events affecting steel scrap prices since 1958

- 1965 The rise of scrap-based minimills and continuous casters begins
- 1973 Peak raw steel and pig iron production and peak scrap consumption by steel mills, price controls and export restrictions imposed
- 1974 Peak scrap consumption (steel mills + ferrous foundries), export restrictions imposed
- 1989 First thin-slab continuous caster for flat-rolled steel products begins operating at minimill facility
- 1990 U.S. exports and imports of ferrous scrap reach record highs
Asian financial crisis begins

Iron and steel (ferrous) scrap is generated within steel mills and foundries (home scrap) or industrial plants (prompt or industrial scrap) while fabricating new iron and steel products and objects discarded because of obsolescence (obsolete scrap). Ferrous scrap recycling is a complex industry that is dependent on the vigor of the two major consumers of scrap—steel mills and ferrous foundries. Thousands of scrap facilities employ tens of thousands of people to collect,

process, and distribute scrap in several regional U.S. markets and the international export market.

In a free-market economy when Government price controls are not in effect, scrap prices react quickly to changes in supply and, especially, demand. When demand for steel mill and foundry products is low, demand for scrap is low, and prices fall. Dealers cannot influence sales of scrap if mills and foundries do not need it to charge their furnaces. Dealers can

hold back some scrap from mills and foundries when prices are below their costs to purchase and process it. Scrap generated by industrial plants, however, must be disposed of each month to the highest bidder to make room for more scrap. Prices are also influenced by technological changes in steel mills and foundries, processing and upgrading to desired physical and chemical qualities, the use of scrap substitutes, environmental controls and other Government laws and regulations, and export demand. Scrap metal prices quoted in major trade publications, such as American Metal Market, have been considered by many economists to be an excellent barometer of current industrial demand. Of particular interest is the No. 1 Heavy Melting Steel (No. 1) composite price of three cities—Chicago, IL, Philadelphia, PA, and Pittsburgh, PA—which has been recorded by American Metal Market since 1907.

During the past 90 years, the price of No. 1 responded to supply-and-demand forces in a free-market economic environment, and price fluctuations were sometimes dramatic from year to year. The Great Depression (1929-33) was a time of declining manufacturing activity with all-time record lows in demand and prices for scrap from 1931 to 1933. During World Wars I and II, demand increased to the point that the Government adopted price controls to halt scrap price inflation (Campbell, 1948). The price of No. 1 nearly tripled as a result of high demand during World War II. The Government also adopted price controls during the Korean conflict.

During the early 1970's, a new approach to steelmaking gained prominence, which caused record highs in steel production (1973) and scrap consumption (1974). New, comparatively smaller steel plants were built to produce simple products, such as hot-rolled bars of steel. These new plants, called minimills, did not have blast furnaces to process iron ore; instead, modern electric furnaces and continuous casters were used to melt ferrous scrap and to cast the raw

steel into products at the lowest possible cost (Iron and Steelmaker, 1998). Minimills have been able to capture a significant share of the market by setting prices that the previously dominant steel companies were unable to match. By 1990, U.S. exports and imports of ferrous scrap to feed minimills built in the United States and abroad reached record highs.

Ferrous scrap prices declined significantly during 1991 as domestic and world demand for scrap decreased. Domestic demand began to increase during 1992, and world demand remained weak. The period from 1993 to the first half of 1997 was one of strengthening demand for ferrous scrap and rising prices. Developing countries in Asia, Eastern Europe, and Latin America experienced significant economic growth. Minimill capacity increased worldwide, and integrated steel mills increased efficiency and scrap usage.

A financial crisis began in Asia in 1997 when Thailand devalued its currency. Prospering economies in China, Hong Kong, Indonesia, Japan, the Republic of Korea, Malaysia, Singapore, Taiwan, and Thailand were seriously weakened. Asian ferrous scrap purchases decreased, and prices of scrap declined, which adversely affected the domestic scrap industry (Gavaghan, 1998).

By the end of 1998, prices had stabilized at a level about \$40 per ton below the price level of the first half of the year.

References Cited

- Campbell, R.F., 1948, *The history of basic metals price control in World War II*: New York, Columbia University Press, 263 p.
- Gavaghan, B.P., 1998, *World steel industry faces uncertain economic future*: Iron and Steelmaker, v. 25, no.12, December, p. 25-26.
- Iron and Steelmaker, 1998, *I&SM continuous caster roundup*: Iron and Steelmaker, v. 25, no. 11, p. 14-31.

Annual Average U.S. Steel Scrap Price¹
(Dollars per metric ton)

Year	Price	Year	Price	Year	Price	Year	Price
1907	16.27	1930	13.25	1953	39.27	1976	76.74
1908	13.40	1931	9.58	1954	28.29	1977	63.05
1909	15.49	1932	7.29	1955	39.12	1978	75.92
1910	14.48	1933	9.20	1956	52.61	1979	97.41
1911	12.20	1934	10.74	1957	46.36	1980	91.42
1912	13.08	1935	11.52	1958	37.21	1981	91.86
1913	11.94	1936	14.48	1959	37.09	1982	62.72
1914	10.33	1937	17.63	1960	32.68	1983	71.76
1915	12.07	1938	13.21	1961	35.80	1984	86.52
1916	17.13	1939	15.95	1962	27.89	1985	68.93
1917	28.62	1940	18.22	1963	26.47	1986	73.00
1918	28.11	1941	19.12	1964	35.92	1987	84.41
1919	18.05	1942	18.87	1965	33.73	1988	107.26
1920	23.57	1943	18.87	1966	30.18	1989	105.61
1921	12.46	1944	18.33	1967	27.19	1990	105.46
1922	15.58	1945	18.84	1968	25.53	1991	91.79
1923	18.89	1946	19.83	1969	30.08	1992	84.67
1924	16.91	1947	35.08	1970	44.24	1993	112.44
1925	16.91	1948	40.89	1971	33.92	1994	126.82
1926	15.33	1949	27.06	1972	36.05	1995	135.03
1927	13.94	1950	34.78	1973	56.76	1996	130.60
1928	14.13	1951	42.46	1974	106.13	1997	130.45
1929	15.97	1952	41.23	1975	71.37	1998	108.30

¹ Composite price of No. 1 Heavy Melting Steel scrap at Chicago, IL, Philadelphia, PA, and Pittsburgh, PA, (three-city average). As defined by the Institute of Scrap Recycling Industries, Inc., No. 1 Heavy Melting Steel is wrought iron and/or steel scrap ¼ inch and more in thickness. Individual pieces not more than 60 x 24 inches (changing box size) are prepared in a manner to ensure compact charging.

Source: American Metal Market.