

**Appendix**

**REAL PRICES FOR SELECTED  
MINERAL COMMODITIES, 1870-1997**

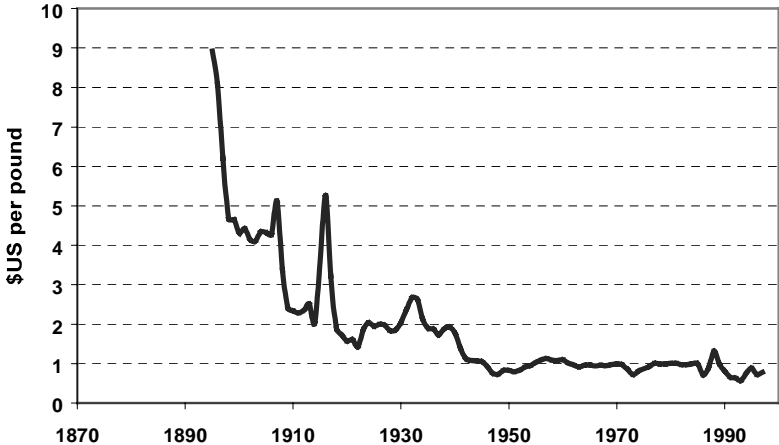
by

Peter Howie  
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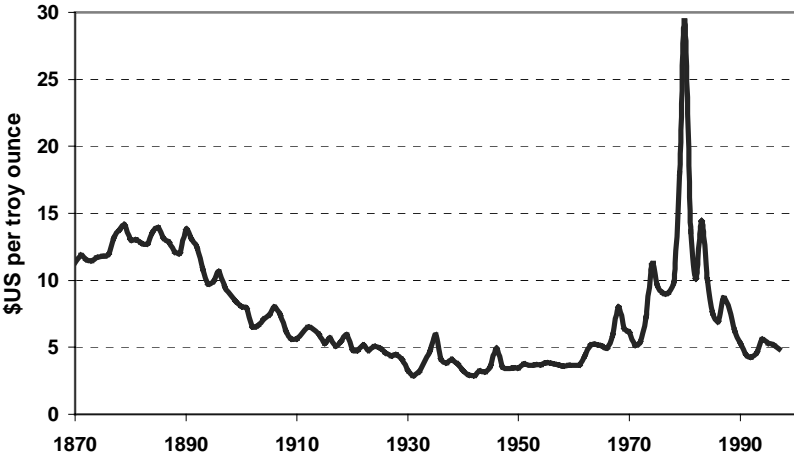
The figures below show the prices for aluminum, copper, pig iron, iron ore, nickel, lead, silver, tin, zinc, petroleum, natural gas, and bituminous coal deflated by the U.S. producer price index over the period 1870 to 1997. They are an update of the price data that Robert S. Manthy provides in his 1978 book, *Natural Resource Commodities—A Century of Statistics*. This book, in turn, updates the 1962 book by Neal Potter and Francis T. Christy, Jr., entitled *Trends in Natural Resource Commodities*. Both volumes, published by Johns Hopkins for Resources for the Future, contain a wealth of other data on mineral output, consumption, trade, and employment.

The section on data sources following the figures identifies the nature of the prices quoted along with their original sources.

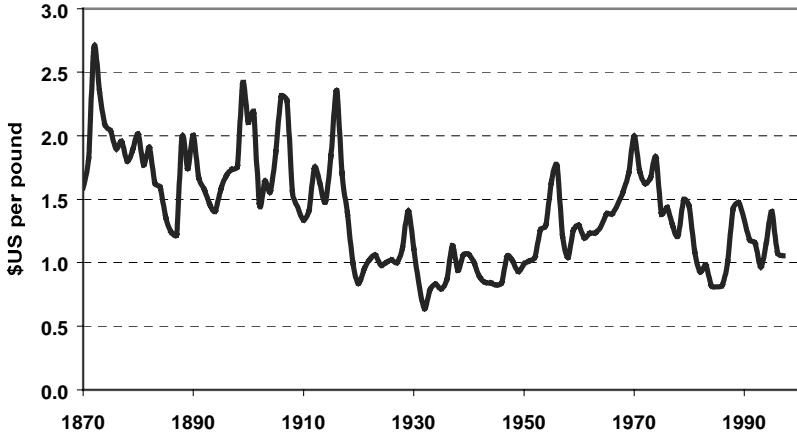
Real Prices Al Ingot (\$US/lb), \$1997



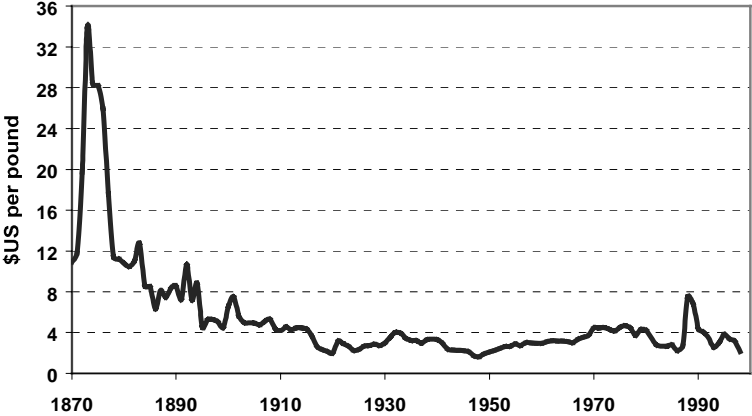
Real Prices Ag (\$US/troy ounce), \$1997



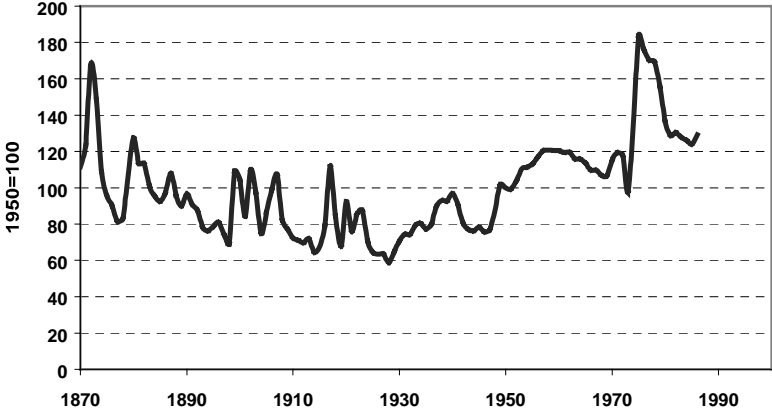
Real Prices Cu (\$US/lb), \$1997



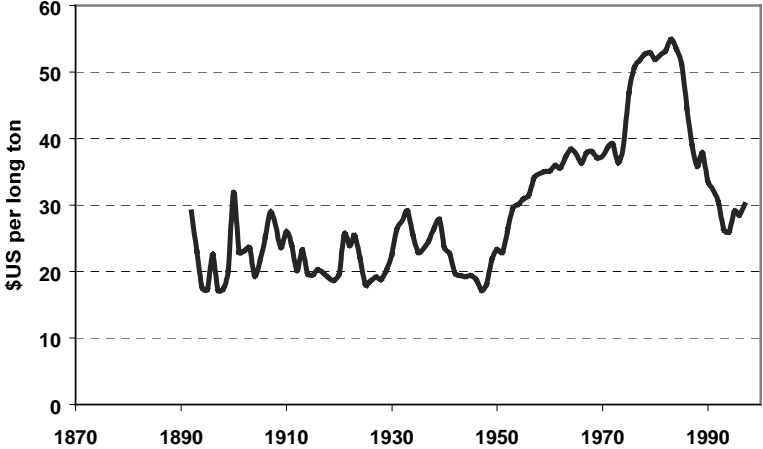
Real Prices Ni (\$US/lb), \$1997



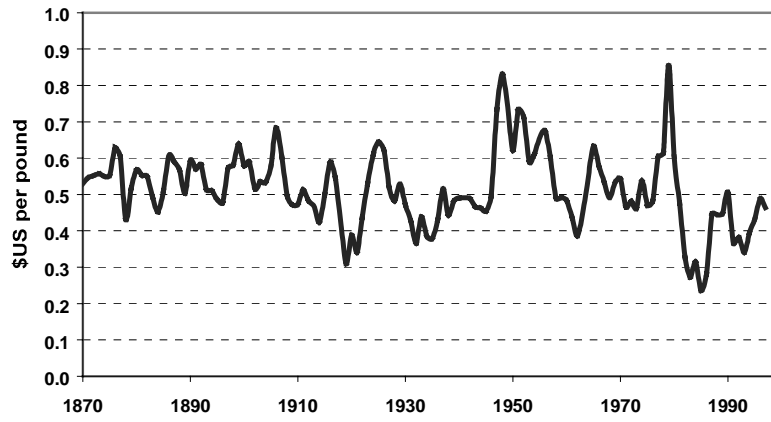
Real Prices Pig Iron (1950=100)



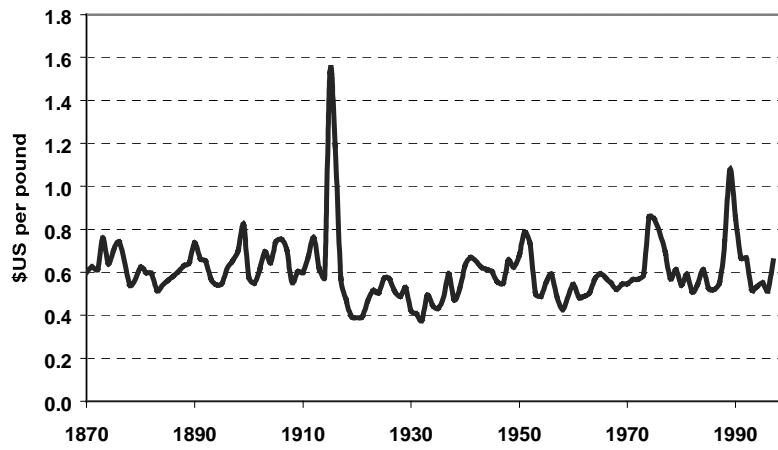
Real Prices Iron Ore (\$US/long ton), \$1997



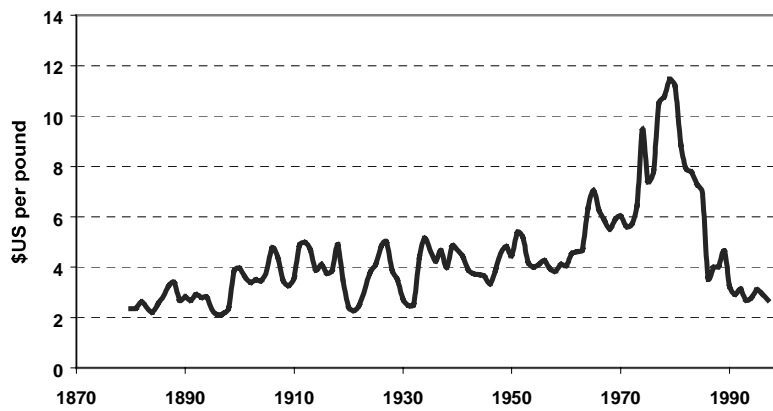
Real Prices Pb (\$US/lb), \$1997



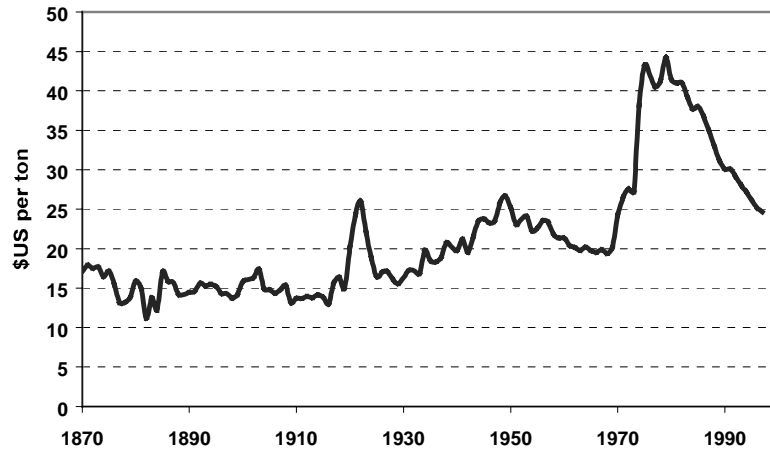
Real Prices Zn (\$US/lb), \$1997



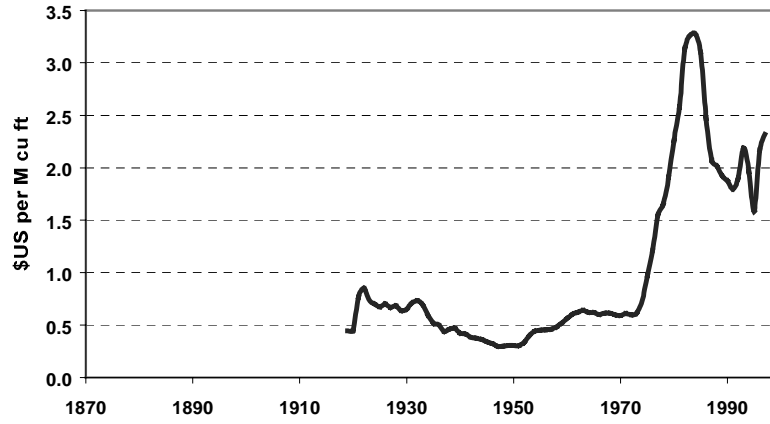
Real Prices Sn (\$US/lb), \$1997



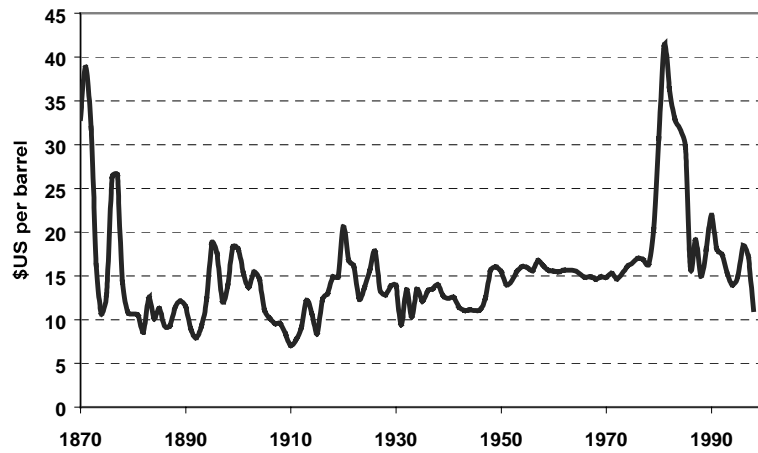
Real Prices Bituminous Coal (\$/ton), \$1997



Real Prices Natural Gas (\$US/ M cu ft), \$1997



Real Prices Petroleum (\$US/barrel), \$1997



## Nature of Data and Sources

### **Aluminum:** New York Prices and Producers Average Price

- 1870 - 1957: Potter and Christy (1870-1904: *ABMS Yearbook*, American Bureau of Metal Statistics; 1905-1957: *Metal Statistics*, American Metal Market)
- 1958 - 1983: *Metal Statistics*, American Metal Market
- 1984 - 1991: *ABMS Yearbook*, American Bureau of Metal Statistics
- 1992 - 1997: *Metal Statistics*, American Metal Market

### **Copper:** United States Ingot and Electrolytic Copper at Refinery

- 1870 - 1957: Potter and Christy (1870-1889: *Aldrich Report - Wholesale Prices, Wages and Transportation*, U.S. Congress, Senate Committee on Finance; 1890-1905: *BLS Wholesale Prices Bulletin*, U.S. Department of Labor, Bureau of Labor Statistics; 1906-1957: *ABMS Yearbook*, American Bureau of Metal Statistics)
- 1958 - 1973: Manthy (1958-1973: *ABMS Yearbook*, American Bureau of Metal Statistics)
- 1974 - 1997: *ABMS Yearbook*, American Bureau of Metal Statistics

### **Pig Iron:** United States Average Value

- 1870 - 1957: Potter and Christy (1870-89: *Statistical Abstracts of the United States - no.1 foundry at Philadelphia*, U.S. Department of Commerce, Bureau of the Census; 1890-1957: *BLS Wholesale Prices Bulletin*, U.S. Department of Labor, Bureau of Labor Statistics)
- 1958 - 1973: Manthy (1958-1973: *BLS Wholesale Prices and Price Indexes*, U.S. Department of Labor, Bureau of Labor Statistics)
- 1974 - 1986: *BLS Wholesale Prices and Price Indexes*, U.S. Department of Labor, Bureau of Labor Statistics

### **Iron Ore:** Mesabi, non-Bessemer Iron Ore at Lake Erie Docks

- 1895 - 1957: Potter and Christy (1895-57: *Metal Statistics*, American Metal Market)
- 1958 - 1997: *Minerals Yearbook*, U.S. Department of the Interior, Bureau of Mines and United States Geological Survey - Salient Iron Ore Statistics, Average value at mines

### **Nickel:** Average Unit Value Imported for Consumption

- 1870 - 1957: Potter and Christy (1870-1908: *Mineral Resources of the United States*, U.S. Department of the Interior, Geological Survey; 1909-1957: *Mineral Resources of the United States and Minerals Yearbook*, U.S. Department of the Interior, Bureau of Mines)
- 1958 - 1990: *Nickel Statistical Compendium*, U.S. Department of the Interior, United States Geological Survey
- 1991 - 1997: *Minerals Yearbook*, U.S. Department of the Interior, United States Geological Survey

**Lead:** United States Average Price at New York

- 1870 - 1957: Potter and Christy (1870-1955: *Historical Statistics of the United States, Colonial Times to 1957* and *Statistical Abstracts of the United States*, U.S. Department of Commerce, Bureau of the Census; 1956-1957: *Minerals Yearbook*, U.S. Department of the Interior, Bureau of Mines)
- 1958 - 1973: Manthy (1958-1973: *Minerals Yearbook*, U.S. Department of the Interior, Bureau of Mines)
- 1974 - 1987: *ABMS Yearbook*, American Bureau of Metal Statistics - United States Producer Lead Price
- 1988 - 1997: *ABMS Yearbook*, American Bureau of Metal Statistics - North American Producer Lead Price

**Silver:** New York Price

- 1870-1957: *Historical Statistics of the United States, Colonial Times to 1957*, U.S. Department of Commerce, Bureau of the Census;
- 1958-1997: *Metal Statistics*, American Metal Market

**Tin:** Straits Tin Prices in New York:

- 1880-1997: *Metal Statistics*, American Metal Market

**Zinc:** New York Prices and Prime Western Slab Zinc at New York

- 1870 - 1957: Potter and Christy (1870-1879: *Aldrich Report - Wholesale Prices, Wages and Transportation*, U.S. Congress, Senate Committee on Finance; 1880-1957: *Metal Statistics*, American Metal Market)
- 1958 - 1973: Manthy (1958-1973: *Metal Statistics*, American Metal Market)
- 1974 - 1990: *Metal Statistics*, American Metal Market
- 1991: Based on average of London Metals Exchange quotes
- 1992 - 1997: *Metal Statistics*, American Metal Market - Producers U.S. Spot Zinc, Prime Western

**Petroleum:** United States Average Value

- 1870 - 1957: Potter and Christy (1870-1914: *Mineral Resources of the United States*, U.S. Department of the Interior, Geological Survey; 1915-1953: *Petroleum Facts and Figures*, American Petroleum Institute)
- 1958 - 1973: Manthy (1958-1969: *Petroleum Facts and Figures*, American Petroleum Institute; 1970-1973: *Mineral Industry Surveys Petroleum Statement*, U.S. Department of the Interior, Bureau of Mines)
- 1974 - 1997: *Basic Petroleum Data Book*, *Petroleum Industry Statistics*, American Petroleum Institute

**Natural Gas:** United States Average Value, Point of Production

- 1870 - 1957: Potter and Christy (1919-1921: Barger and Schurr, 1944, *The Mining Industries, 1899-1939: A Study of Output, Employment and Productivity*; 1922-1931: *Mineral Resources of the United States*,

- U.S. Department of the Interior, Geological Survey and Bureau of Mines; 1932-1953: *Minerals Yearbook*, U.S. Department of the Interior, Bureau of Mines)
- 1958 - 1973: Manthy (1958-1973: *Minerals Yearbook*, U.S. Department of the Interior, Bureau of Mines)
- 1974 - 1997: *Basic Petroleum Data Book*, *Petroleum Industry Statistics*, American Petroleum Institute

**Bituminous Coal: United States Average Value at Mine**

- 1870 - 1957: Potter and Christy (1870: *Census of Mineral Industries*, U.S. Department of Commerce; 1871-1879: *Seward's Coal Trade Journal*; 1880-1896: *Mineral Resources of the United States*, U.S. Department of the Interior, Geological Survey; 1897-1955: *Historical Statistics of the United States, Colonial Times to 1957* and *Statistical Abstracts of the United States*, U.S. Department of Commerce, Bureau of the Census; 1956-1957: *Minerals Yearbook*, U.S. Department of the Interior, Bureau of Mines)
- 1958 - 1973: Manthy (1958-1973: *Minerals Yearbook*, U.S. Department of the Interior, Bureau of Mines)
- 1974 - 1997: *Energy Information Administration Annual Energy Review*, Energy Information Administration, U.S. Department of Energy

**Producer Price Index: All Commodities**

- 1870 - 1957: Potter and Christy (*Historical Statistics of the United States, 1789-1945*, and *Statistical Abstracts of the United States*, U.S. Department of Commerce, Bureau of the Census)
- 1958 - 1973: Manthy (*Statistical Abstracts of the United States*, U.S. Department of Commerce, Bureau of the Census)
- 1974 - 1997: *Statistical Abstracts of the United States*, U.S. Department of Commerce, Bureau of the Census