

## Long-term history of tin prices

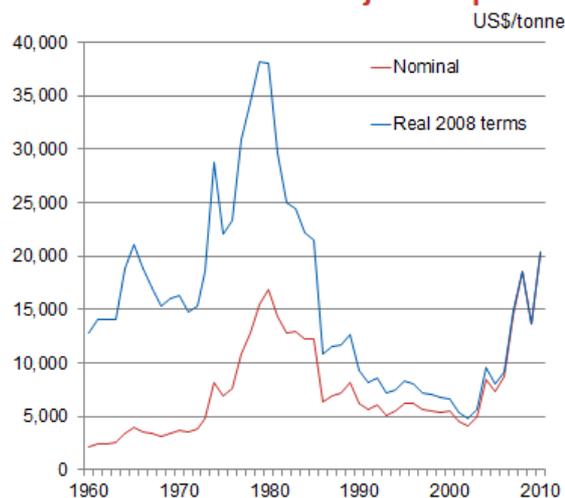
The first chart shows prices in nominal and inflation-adjusted terms from 1960 to 2009. The latest figures (from 1990) are based on annual average LME cash prices. Figures up to 1985 are LME pound sterling prices converted into US dollars. While LME trading was suspended from 1986 – 1989 the prices are based on physical market quotations published by Metal Bulletin. The whole series of nominal prices is converted into real, inflation-adjusted terms using the US GDP deflator.

The basic point to note from this chart is that, following a long period of depression between 1986 and 2002, nominal prices have recovered strongly in the last five years back to about where they were in the late 1970s/early 1980s. However since then the prices of all goods and services in the US economy have approximately doubled. Thus the “real” tin price at its all time peak, when expressed in 2008 money, was over \$38,000/tonne, still well above last year’s annual average of a little under \$20,500/tonne.

The two charts on the next page show longer-term real prices in two different ways: firstly as a conventional graph showing movements over time and secondly as a histogram showing the distribution of prices over the whole period of more than a century. The latter emphasises the fact that for almost half of the period since 1900 real annual average prices have been in the \$10,000 – 15,000/tonne range. The two most marked and sustained deviations from this range have occurred relatively recently: above it in the 1970s and early 1980s and below it from 1990 to 2006. Put another way, for the majority of the last four decades the tin market has either been at one extreme or another.

The current market situation differs from history in an important respect in that it is now free from inter-governmental controls. Up to 1985/86 the International Tin Council was a key participant in the market, operating under a series of successive International Tin Agreements (ITAs) from 1954. Indeed inter-governmental schemes to manage the market date back to the 1920s. The key element in the ITAs was a buffer stock system: the ITC bought tin when the market was over-supplied and released it when conditions improved, with all buffer stock purchases and sales linked to a transparent price range agreed by the members. The “floor” price was set with reference to marginal costs of production (high cost mines in Bolivia and Malaysia) and could be defended by the imposition of export quotas on member countries as well as buffer stock purchases.

### Actual and inflation-adjusted prices



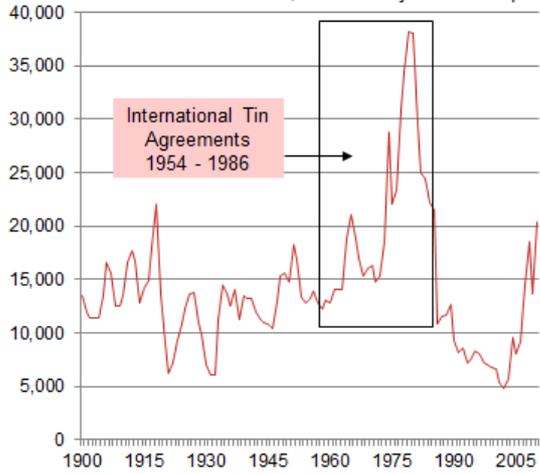
From the start of the first ITA in 1956 up to 1985 the floor price was always successfully defended. However by the mid-1980s, the ITC found it increasingly difficult to apply remedies for cyclical problems to a market that was facing a structural crisis. As a result of the decline in world consumption since the early 1970s and the growth of new supply outside its control (particularly from non-member country Brazil) it faced the prospect of permanent export controls and an ever increasing buffer stock.

Eventually the buffer stock was put under intolerable strain and had to halt operations in October 1985, at which point it held physical stocks of 52,000 tonnes and an LME long position of over 60,000 tonnes. After five months of fruitless political negotiations, the ITC failed to find a solution to the crisis and the market collapsed. After closing out all outstanding contracts at an imposed “ring out” price, the LME suspended tin trading. The suspension remained in force until June 1989. Meanwhile the ex-ITC stocks were sold off by its bank creditors. It might have been expected that the market would gradually recover once the tin crisis was over, but prices continued to decline over the next decade or more, as a result of excess new supply from first Brazil and subsequently China.

While the ITC had a major role in the tin market over a long period, it should not be concluded that the peak prices of the 1970s and 1980s were artificial. The highest prices were much higher than the buffer stock price range, so the ITC was not involved in the market at this time. Up to 1980 the market was genuinely tight – stocks were low and although demand had deteriorated since the early 1970s, production from the two major suppliers – Malaysia and Bolivia – was also in decline. Such underlying market conditions have not been experienced since.

**Long-term tin price history**

US\$/tonne, inflation adjusted 2008 prices



**Tin price histogram, 1900 - 2010**

Number of years in each price band

