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# Zinc

## Prices and production

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Zinc, symbol Zn, is a metal blue gray or gray-white, its density is 7133 kg per 1 cubic meter, its melting temperature is 419 degrees and the boiling temperature is 906 degrees. It is mainly used in industry for galvanizing iron and prevents its corrosion.

China became the No. 1 country of production, consumption and refining of zinc. "*The factory of the world*" needs this metal.

Few months, the price of zinc rose from the summit to the cellar. After a violent and fast fall, that the situation could be worse is not the only advantage ...

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### **The refining and use of zinc**

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The zinc sulphide, called Blende, is the more widespread zinc ore in the zinc mines. The sulfide is roasted at 900 degrees in furnaces for zinc oxide (calcine). Leaching (using sulfuric acid), processed zinc oxide zinc sulphate then removes the iron, [gold](#), [silver](#). Other impurities are then removed by cementation (using zinc powder) such as cadmium, copper, cobalt and nickel, and zinc is purified by electrolysis. This is the method of hydro-metallurgical refining that involves the use of chemical processes, this process is used for 9 / 10 of world production. The second method of pyrometallurgy uses thermal processes involving the fence after a liquidation refining and distillation, the method is the oldest.

The first zinc smelting ore from the mine product. Zinc comes from secondary smelting of zinc recycling. Zinc from recycled residues and processing residues miscellaneous castings to the automotive, appliances ...

The use of zinc is not just the roofs and eaves of houses. Zinc is primarily used for galvanizing iron and steel (70% of global consumption) that occurs by two processes: the hot-dipped in a bath of molten zinc (more reliable) or the electrolysis. The automobile industry consumes a lot of zinc to prevent corrosion of the steel. Galvanizing zinc is also used for plates, pipes, cables, construction, manufacture of electrical ... Zinc is also used in the manufacture of batteries, batteries, tires, rubber products, tanks, pigments for paints ...

Zinc is also popular for its ability to form alloys with other metals such as brass is an alloy composed of zinc (1 / 2) and copper.

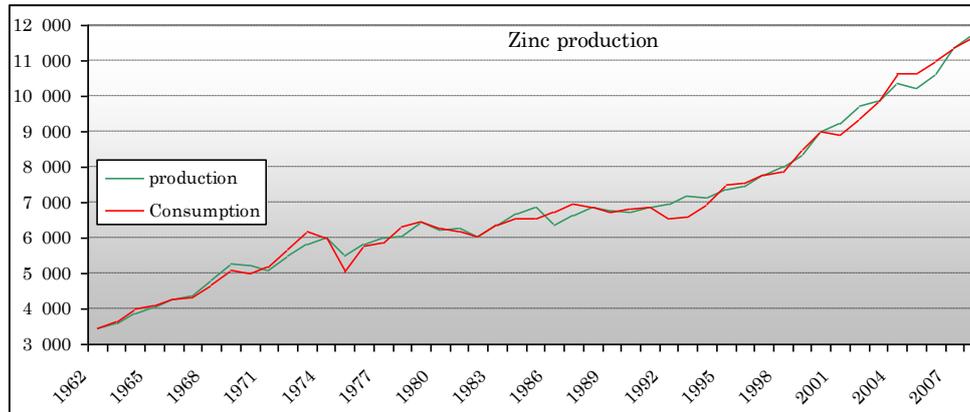
Zamak is an alloy of zinc (95%) and aluminum with a little copper and magnesium, it is used in the automotive industry and appreciated for its qualities of molten fluidity. Maillechort is an alloy of copper, zinc and nickel. Zinc is also used in small quantities in the alloy of bronze to make more fluid the fusion metal.

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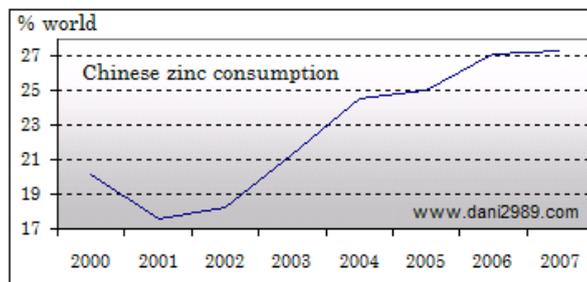
### **Production and consumption of zinc in the world**

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World production of zinc in 2008 is estimated at over 11.6 million tonnes of zinc, almost triple in 1962 and twice in 1995. The increase in world production of zinc since 2002 is 26%. Zinc production followed demand because prices have tripled. Today, prices are back to 2002 levels, but not production, nor the ...



China is the world's largest producer of zinc with more than a quarter of world production of zinc and the largest consumer with almost a third of world production.



Zinc consumption in China has tripled since 2000. China consumes more zinc than USA, Japan, India, Germany, Italy and Belgium combined.

China holds first place for the production, consumption and refining of zinc. To know what is happening in the world of zinc, we must look at what China did. China is a net importer of zinc, while the first zinc producer in the world. "The factory of the world" needs zinc to produce cars, washing machines, factories, infrastructure ...

While Europe and USA are infusing their banking sector, [China](#) is racing its raw materials, and tops the list: oil, iron, copper, aluminum, uranium and zinc Australian ...

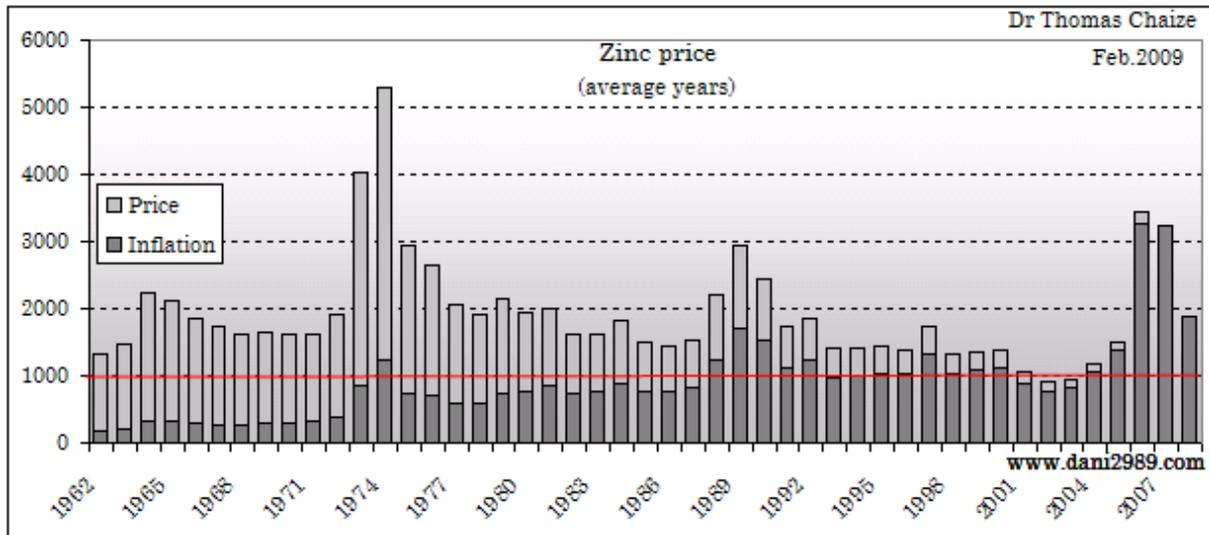
Zinc mines are in China (27%), Australia (12%), Peru (12%), USA (7%) in Canada (5%) and Mexico (4%). The first three zinc producing countries (China, Australia, Peru) for over half of the zinc produced worldwide.

The falling price of zinc has resulted in very rapid closure of many mines in the world. Fourteen mines have closed and a dozen others have decreased their production. Mining projects under construction are in the best case, delayed and often abandoned. The worst affected country is Australia. A zinc mine closed in a few months, but its reopening takes years and tens of millions of dollars of investment.

## The price of zinc

The price per tonne of zinc is a thousand dollars per ton or a little less than half a dollar lbs. To give you an idea of the price level, this has happened only three times in a century:

- In 1921 after the price rise of the First World War
- In 1932 after the 1929 crisis
- In 2002 after almost thirty years of steady decline due to structural factors that no longer exist today.



Zinc mines are in hell with the price of zinc at this level. The producers do not stop only invest, they close the mines of zinc or go bankrupt.

The price of zinc has scared off investors, banks can lend more, today's zinc mines produce at a loss. Increases in capital or loans are the only two exits.

The only good news for mining of zinc, is the decline of [oil price](#). It is however nearing completion and implications for zinc mines will be terrible at this price level of zinc. It has a margin squeeze between rising costs and falling prices of zinc.

A 1 000 dollars a tonne, global production of zinc is seriously threatened, many zinc mines produce at a loss and lack of credit and increased capital makes their situation even more critical.

The price of zinc rose from \$ 4 000 per tonne to 1,000 dollars per tonne in 24 months. 1 000 is not just a psychological floor is also the red zone of the world production of zinc.



The situation is simple: the zinc is necessary for the industry. China, however, first zinc producer in the world, not enough product, it is important (industry, construction, infrastructure). China and the world need zinc.

A 1 000 dollars per tonne of zinc or a half dollar lbs, economic growth or not, the world will run out of zinc. Whatever the approach: technical, psychological threshold, structural analysis, mystical incantation, 1 000 dollar per tonne of zinc is a lower area for over 100 years because the zinc mines produce at a loss when prices are so low! !

We need the price of zinc goes back quickly so that the balance between supply and demand remains stable, otherwise the mine will continue to close, the production of zinc will collapse and zinc prices soar again.

We have two solutions : small increase in the price of zinc in the short term or very sharp rise in zinc prices in the long term.

### Dr Thomas Chaize

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