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**Special Mining Indaba issue**

# Zinc Ore outlook: Price performance review

*By Alana van Wouw, market analyst at Crane Ridge*

*Year over year, the value of globally exported zinc accelerated by an average 44.6% compared to $8.7 billion for 2020.*

Zinc futures are edging to around $2930 a tonne, which is in line with other metals. So, what is driving the zinc price now? Two key activities are the stronger dollar and the spike in Covid 19 cases in China. In October, China imported 1,007 Mt of refined zinc, down 77.55% on the month and 97.54% on the year. Europe could also influence the zinc price owing to the possibility of further supply disruptions and uncertainty around shortages of energy.

In 2022, numerous European zinc producers either had to shut down their smelters entirely or cut production due to high energy costs and low inventories.

The future of zinc is looking promising with opportunities in the construction and infrastructure, transportation, consumer goods, and industrial machinery sectors. The global zinc market is expected to reach $74.4 billion in 2027 and is forecast to grow at a CAGR of 4.4% from 2021 to 2027.

| Rank | Countries Generating Greatest Surpluses from Global Zinc Trade | Value |
|---|---|---|
| 1 | Peru | $1.63 billion |
| 2 | Australia | $1.57 billion |
| 3 | United States | $1.5 billion |
| 4 | Bolivia | $1.4 billion |
| 5 | Sweden | $493.9 million |
| 6 | Turkey | $465.8 million |
| 7 | South Africa | $462.3 million |
| 8 | Chile | $427.0 million |
| 9 | Portugal | $341.9 million |
| 10 | Eritrea | $279.9 million |

## Zinc ore outlook: Demand and supply dynamics

The zinc market has been driven by the increasing demand for galvanized steel and infrastructure development in emerging markets such as India, Brazil, and Indonesia. Furthermore, growing demand from niche applications like smartphones, electric vehicles, mild hybrid engines, and power grid storage will drive the global zinc market.



Zinc exports from all countries totalled $12.6 billion in 2021. That dollar amount results from an average 11.2% increase for all shippers of zinc over the 5-year period starting in 2017. Back then, exported zinc ores and concentrates were worth a total $11.3 billion.

Year over year, the value of globally exported zinc accelerated by an average 44.6% compared to $8.7 billion for 2020.

The following countries posted the highest positive net exports for zinc during 2021. Investopedia defines net exports as the value of a country's total exports minus the value of its total imports.

The below graph presents the surplus between the value of each country's exported zinc and its import purchases for that same commodity.

## Zinc Ore ESG outlook:

One of the most significant transitions for the zinc market is the green energy sector via rechargeable zinc-based batteries.

Currently there are six different types of zinc-based battery chemistries with different characteristics and resulting

applications: nickel-zinc, zinc-ion, zinc-manganese, zinc-bromine, zinc-air, and zinc-air flow. While these six battery types have a wide range of applications, their key use in facilitating the transition to green economies relates to renewable energy storage in residential, industrial and commercial settings.

In solar and wind power, the amount of energy produced fluctuates drastically due to natural phenomena (i.e. a lack of sun at night). Zinc-based batteries can be used to address this issue; storing power during peak production times and discharging it when demand exceeds production capacity.

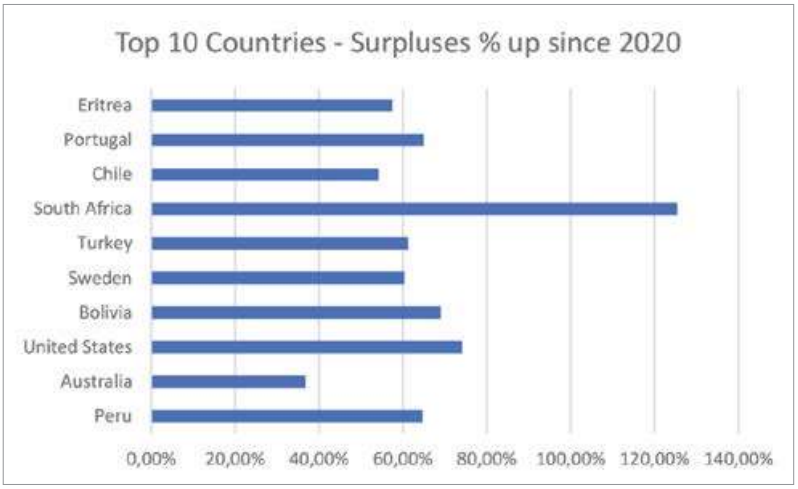
While batteries are already used for such applications, the dominant chemistries rely heavily on rare materials and safety concerns remain a central element in the debate surrounding their use. Zinc batteries therefore provide a cost-effective, safe and reliable alternative to these battery chemistries for such applications.

An example of this process in action is Zinc8 Energy Solutions Inc which has redefined long-duration energy storage with its low-cost zinc-air battery that offers a 20,000-hour operating life and more than eight hours of storage.

The global rise in electricity sourced from renewable sources such as wind turbines and solar has led to increased demand for advanced batteries that can be used to stabilise intermittent supply.

The company developed the zinc-air batteries as an alternative to lithium-ion batteries for use in applications that require long-duration, high-capacity storage.

The batteries can store current from wind or solar and can be deployed in commercial settings, or as an industrial backup to replace diesel generators. The total addressable market in the commercial and industrial space in the US alone is $350 billion.


A significant transition for the zinc market is the green energy sector.