

ICSG AND COPPER MARKET TRANSPARENCY: LESSONS LEARNED IN 2007-2022 AND CHALLENGES FOR 2023-2030

By

Carlos Risopatron

International Copper Study Group, Portugal

Presenter and Corresponding Author

Carlos Risopatron

ABSTRACT

A review of selected ICSG activities focused on the improvement of global copper market transparency in 2007-2022 and challenges for the future is the main objective of this presentation. A review of commissioned ICSG research projects related to copper mine supply, demand and to use of recycled copper are compared with research of special interest for ICSG member countries in the period of analysis. We summarize key findings of selected ICSG research projects every year for the period of analysis and then we identify the main challenges to improve transparency in the global value chain in the future.

A review of global copper demand and copper end use trends in recent years is followed by a review of the reasons why capex in the copper mining industry has stagnated and it is not expected to grow in line with the optimistic long-term copper demand and copper end use perspectives of the green energy transition. Then we discuss the need to invest in a more accurate and updated assessment of the location of the global copper resources and by-products and in increasing the public information about the mineral composition of copper deposits including ore grades for copper and its main by-products. We assess the urgency to reallocate copper processing plants and develop new technologies to process base metals with increasing contents of hazardous wastes such as arsenic, mercury and cadmium to reduce pollution risks in the industrializing economies of Asia and in the value and transport chain from mining economies. Needs to develop alternative technologies to process more complex copper sulphide concentrates closer to copper mine sites are discussed versus the need to sustain increases in copper smelting capacity in Asia, using blending between complex and increasingly scarce clean concentrates.

Reallocation trends of the global value chains of many copper end use products closer to where the most affluent consumers live are also discussed. Then we discuss how the war in Ukraine sparked a global scramble for minerals resource security in 2022 emerging copper demand based on governments guaranteeing loans to traders and miners to develop new mine supply of strategic minerals and copper industry by-products. Then we discuss concerns in the copper industry that monetary policies such as higher interest rates might decrease capital expenditure to develop new copper mines and expansions of operational copper mines over 2023-2024, increasing the risk of potential shortages of global copper mine supply and global deficits of refined copper.

We assess the claims that the copper industry must be prepared for the future end use of copper in decarbonization, on expected higher standards of living of the most affluent population, and on more electrification of the population in developing economies and lower income countries in the next three decades. Then we discuss mineral industry consulting firms' forecasts about a potential need for around 10 million tonnes of new copper mine supply over the next decade, from projects that have yet to be approved by governments and financed. Finally, we review forecasts on mineral output capacity likely to come on stream in 2023 and 2024 and the potential of a copper mine capacity growth deceleration driven on by ESG-related and cost constraints.

Keywords: copper supply, demand, fabrication, mineral resource security, capex, mine capacity