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The Russia–Ukraine Conflict; Understanding Short- and Long-term Impacts on Metal and Mineral Supply Chains and Prices

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The Russian invasion of Ukraine has already impacted global supply chains and prices of a variety of commodities, including precious and base metals and critical minerals. These impacts are likely to be long-term given that the sanctions and other actions affecting the Russian economy and the rebuilding of a post-conflict Ukraine will both persist beyond resolution of the conflict. Early impacts include the recent spikes in gold, nickel, copper, and platinum group element prices even without Russian exports of some of these commodities being sanctioned at the time of writing. This reflects the importance of both Russia and Ukraine to the global minerals industry, with Russian being a key producer of aluminum, diamonds, antimony, cobalt, gallium, germanium, magnesium, platinum group elements, silicon, vanadium, gold, rare earth elements, tellurium, titanium, tungsten, nickel, selenium, graphite, silver, copper and more. Combine this with the fact that Ukraine produces significant quantities of rutile, titanium, graphite, iron, manganese, kaolin, ilmenite, and ammonia for fertilizer and that the disruption of supply chains related to this conflict extends significantly beyond Europe means that the impact of this event is and will continue to be global. Direct and indirect short-term effects of this conflict are likely to be supply chain-related, with price spikes reflecting shortages of commodities or impeded supply chains. Longer-term effects will be dependent on the longevity of the conflict as well as the length of sanctions and the subsequent influence on the supply of minerals and metals considered key for the transition to low- and zero-CO₂ energy generation, storage and transport. Restrictions in the supply of these elements could significantly slow climate change mitigation, potentially with global consequences. This presentation will outline the effect of this conflict to date as well as scenarios for the longer-term impacts on mineral and metal supply chains.