

## Nuclear Energy and Uranium

### Key Takeaway

The U.S. announced \$800 million in grants to support the development of small modular reactors (SMRs). Nuclear momentum expanded worldwide as Japan's domestic nuclear output regained nearly half of its market share since 2011 amidst an accelerating trend of reactor restarts.

- The U.S. Department of Energy (DOE) awarded \$400 million each to the Tennessee Valley Authority (TVA) and Holtec in federal cost-shared grants to develop advanced SMR projects. The funding supports the deployment of the first Gen-III+ SMRs within the United States and includes two SMR-300 reactors at the Palisades Plant in Michigan and a GE Hitachi BWRX-300 at the Clinch River Plant in Tennessee.<sup>1</sup>
- South Carolina's state-owned power utility, Santee Cooper, reached a memorandum of understanding (MoU) with Brookfield Asset Management to evaluate the feasibility of completing two partially built Westinghouse AP1000 reactors at the V.C. Summer nuclear plant. Should a decision be reached to finish the reactors, Santee Cooper could potentially receive a cash payout of \$2.7 billion, helping reduce its debt while potentially adding 2,000+ MWe to the South Carolina power grid.<sup>2</sup>
- Japan released its electricity supply and demand figures for fiscal year 2024, which showed nuclear power achieving a 9.4% market share of its total power generation, its highest level since 2011. The increase reflects the return of several nuclear plants, including the Onagawa and Shimane Nuclear Power Plants, and is expected to rise further following the recently approved restart of the 8,000 MW Kashiwazaki-Kariwa nuclear plant.<sup>3</sup>

### PRICE ACTION

Uranium term prices advanced to \$86/lbs at the beginning of December<sup>4</sup> although spot pricing fell to ~\$76.25 mid-month, widening the relative spread between term and spot prices.<sup>5</sup>

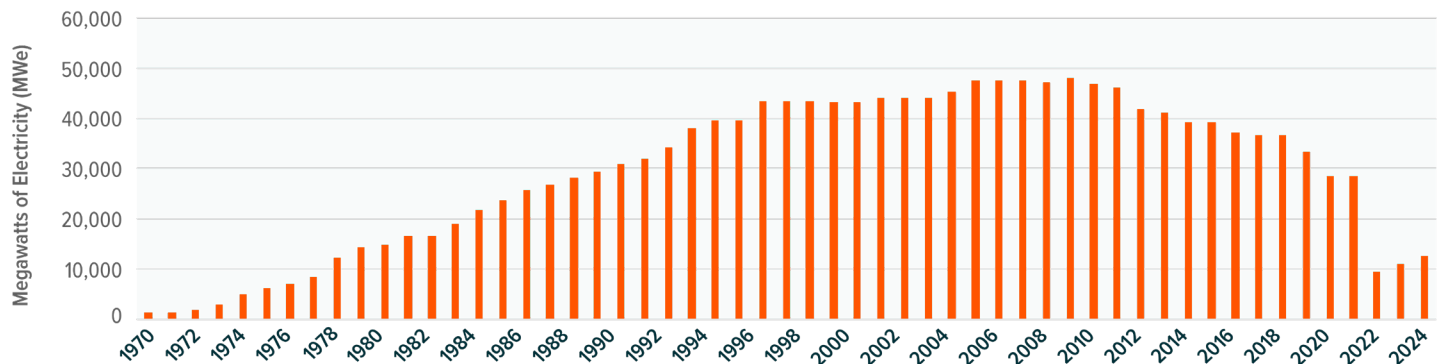
- Despite the advance in long-term U308 prices, spot market activity remained muted as market activity declined over the holiday season, weighing on illiquid spot pricing.<sup>6</sup>
- Lawmakers in Kazakhstan introduced amendments to its Subsoil and Subsoil Use Code, which require Kazatomprom to receive a 90% stake in any joint venture upon contract renewal. If passed, these amendments introduce a new model for subsoil use rights and potentially represents the nation's attempt to consolidate its control over its uranium resources.<sup>7</sup>

### OUTLOOK

The continued advance of government-backed plant restarts, enactment of regulatory reforms, and new financing demonstrate the commitment and scale of nuclear expansions around the world. Momentum has simultaneously accelerated in regions like Japan and India, where policymakers continue to pursue operable reactor restarts in the former, and defined roadmaps for new nuclear builds in the latter.<sup>8</sup> While spot market uranium transactions have been limited, we take confidence in the steady uptrend in term pricing, which we believe will act as a long-term trend around which spot prices may mean revert.

## Japanese Nuclear Restarts Accelerated Over the Past Few Years

Japan Operable Nuclear Capacity from 1970 to 2024



Source: World Nuclear Association (2025, November 18). Nuclear Power in Japan.

Operable nuclear power capacity rose to 12,631 MWe in 2024 but remains roughly 1/4th of its 48,142 MWe peak capacity. While nuclear's share of power output in Japan rose to 9.4% in Japan, the government is seeking to raise this to 20% by 2030.<sup>9</sup>



# Copper

## Key Takeaway

LME copper prices advanced to record highs with currency tailwinds outweighing headwinds from weak Chinese consumption. The transfer of physical copper out of international exchanges into U.S. inventories continues to exacerbate supply deficits, tipping prices upward.

- Copper prices maintained their advance on further dollar weakening, despite weak data out of China and fears surrounding the AI-induced equity rally. Traders reported that bearish LME positions were largely being cut or rolled ahead of settlement on December 17th, with 39% of the copper supply in LME warehouses marked as being prepped for delivery.<sup>10</sup>
- COMEX/LME trade arbitrage continues to tighten global copper markets. 1,205 kt of copper was imported to the U.S. in 2025 vs. 921 kt last year. 730kt of copper remains “trapped” in the U.S., with no economic incentive to exfiltrate it.<sup>11</sup> While tariff risks have receded, refined copper still remains under review with the administration, leaving COMEX/LME spreads elevated.
- An assembly of China’s top copper smelters is set to cut production by over 10% to counter overcapacity across an industry impacted by distorted processing fees. Treatment and refining charges (TC/RCS) were negative in 2025 given the growing divergence between tighter feedstocks and expanding smelter capacity.<sup>12</sup>

## PRICE ACTION

LME copper prices hit an all-time high of nearly \$12,200 per tonne on December 30th.<sup>13</sup> A deficit driven by outages across the world’s largest copper mines in Chile, Indonesia, and the Congo continues to pressure prices upward while trade arbitrage tightens global inventories ex-U.S.

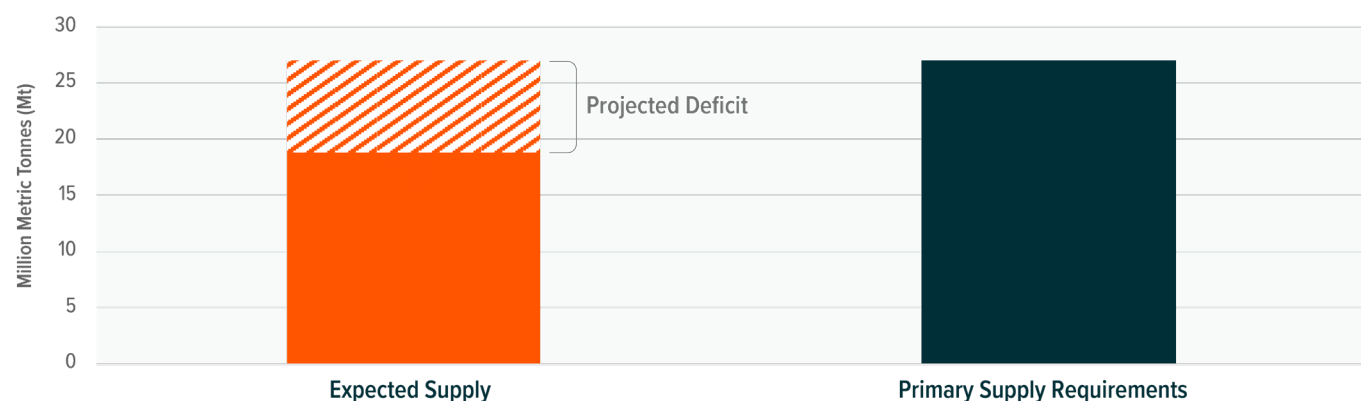
- Global copper cathode premiums hit record levels this quarter with Chinese customers receiving offers of \$335-\$350/tonne, higher than those offered to customers in Europe and Korea. This illustrates the trend of higher premiums worldwide as markets react to counterbalance continued COMEX/LME trade arbitrage.<sup>14</sup>
- U.S. import data from January thru August 2025 showed increased deliveries from a widening range of nations, with supplies originating increasingly from Congo, Australia, Zambia, and Japan. Compare this trend to 2024, where over 87% of copper imports to the U.S. originated from either Chile or Canada.<sup>15</sup>

## OUTLOOK

We think copper miners are well-positioned to benefit from tight supply in 2026, with AI and heightened infrastructure spending remaining sticky sources of consumption while mine delays hamper production. Policy support, infrastructure spending, and trade policy all represent possible catalysts in 2026, while we believe the on-going supply deficit could pose a relatively sticky price floor in the near-term. While a period of consolidation is possible, we believe copper miners will continue to benefit from rising copper premiums, with new production profiting at elevated prices; nearly all miners producing above their cost curves; and a weaker dollar providing a supportive environment for 2026. Favorable copper fundamentals that may culminate in a projected ~30% supply deficit by 2035, support our long-term outlook for the sector.<sup>16</sup>

## Lengthy Timelines and High Costs for Copper Mines Could Send Supply Deficit to ~30% by 2035

IEA Expected Mine Supply from Existing/Announced Projects and Primary Supply Requirements for Copper in 2035



Source: International Energy Agency (May 2025). Global Critical Minerals Outlook 2025.

2025's mine disruptions may have accelerated the timeline for a copper deficit which could rise to as much as 8.2 million metric tonnes, or 30% of global projected supply requirements by 2035.



## Precious Metals

### Key Takeaway

U.S. labor data and a cut by the Federal Reserve drove dollar weakness, sending global commodities and precious metals higher. Physical gold ETFs benefited from inflows, sending the sector's total assets under management (AUM) to \$530 billion, its highest month-end level in history

- Falling rate expectations and weaker labor market data drove the U.S. Dollar Index to fall from November thru mid-December. This dollar weakness drove positive performance among precious metals, including gold, silver, and platinum.<sup>17</sup>
- Global gold ETFs recorded their sixth month of inflows in November, bringing in \$5.2 billion and ballooning AUM to \$530 billion, the highest month-end level in history. Physically backed gold ETFs can influence global gold prices, and fund-flows represent a potential driver of continued price advances in 2026.<sup>18</sup>
- Gold mining equities generated extraordinary returns in 2025, with Newmont advancing 160% YTD while Barrick Mining rose 174%. While miners step up production, mined supply growth remains slow and inelastic, leading gold's demand-side drivers to outstrip supply growth, potentially supporting its continued price advance.<sup>19</sup>

### PRICE ACTION

Gold and silver rose to \$4,338 and \$63, respectively after the U.S. Federal Reserve implemented its third rate cut of 2025. Precious metals are on track for their best annual performance since 1979, capping off a year marked by rising ETF inflows, currency weakness, and strong central bank demand.<sup>20</sup>

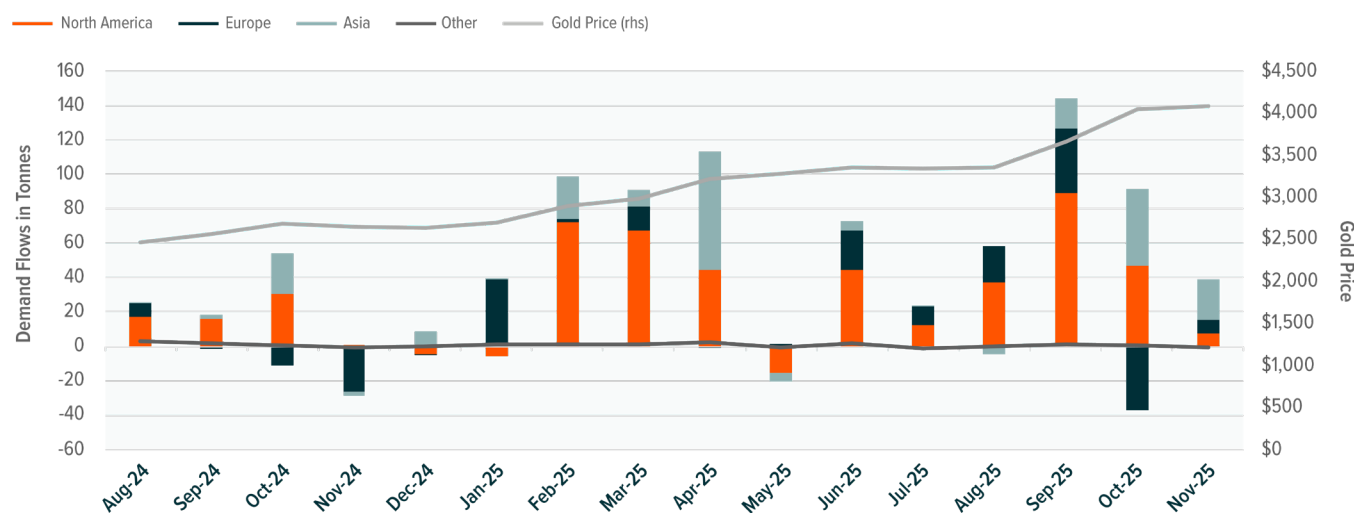
- The U.S. Federal Reserve cut rates while monetary authorities in Canada, Australia, and Switzerland held steady, putting downward pressure on the U.S. dollar and supporting gold prices.<sup>21</sup>
- Asia led ETF inflows as Chinese VAT reforms boosted investment flows relative to jewelry. Meanwhile, the People's Bank of China recorded another 118 tonnes worth of gold purchases in Q3, 2025, a ~55% increase YoY.<sup>22</sup>

### OUTLOOK

The combined impact of rate cuts and weaker job's data delivered currency tailwinds for precious metals, including gold, silver, and platinum. A meaningful slowdown in jobs and consumption could reinforce further bets on rate cuts, potentially continuing the advance among precious metals. While economic strength remains a risk for precious metals, we believe concurrent sell-offs could lead to opportunities among gold miners, particularly as central banks have given little indication of a slowdown in purchases. Limited capacity to expand mined output and decade-long lead times on new mine constructions cap the sector's ability bring on new mined supply, further supporting gold prices and potentially benefitting incumbent gold miners who hold consolidated assets.

## Asia Accounted for the Majority of Global Gold ETF inflows in November

Gold ETF flows by region and gold prices



Source: World Gold Council (2025, December 15). Gold ETFs, holdings and flows.

Gold ETF net inflows have accelerated for 6-months in a row, with Asia dominating much of the increased investment activity. Global gold ETF inflows are on track for their strongest year ever.<sup>23</sup>



## Critical Minerals, Battery Tech & Lithium

### Key Takeaway

China began issuing general export licenses for rare earth exports for select entities, easing trade tensions with Western buyers. Meanwhile lithium prices hit their highest level since June 2024 amidst the continued outage of CATL's Jianxiawo mine.

- China announced the issuance of general licenses for rare earths exports in a move that could ease trade tensions with global trading partners. These licenses are intended to help firms more freely import rare earths, although officials noted licenses were intended for select buyers with established import volumes, limiting the efficacy of supply.<sup>24</sup>
- Although details are limited, sources note that Chinese rare earth export licenses are set for a period of one year while the first batch was issued to three large Chinese rare earth companies, primarily with ties to the global auto industry.<sup>25</sup>

### PRICE ACTION

Lithium carbonate prices continued their two month rally, rising 8.3% MoM to \$13,350/ton, their highest level in over a year. Prices remain elevated amidst Jianxiawo's prolonged suspension and fears of potential export disruptions in Africa. Thin inventories among cathode producers and the anticipated Chinese restocking season may support near-term prices.<sup>26</sup>

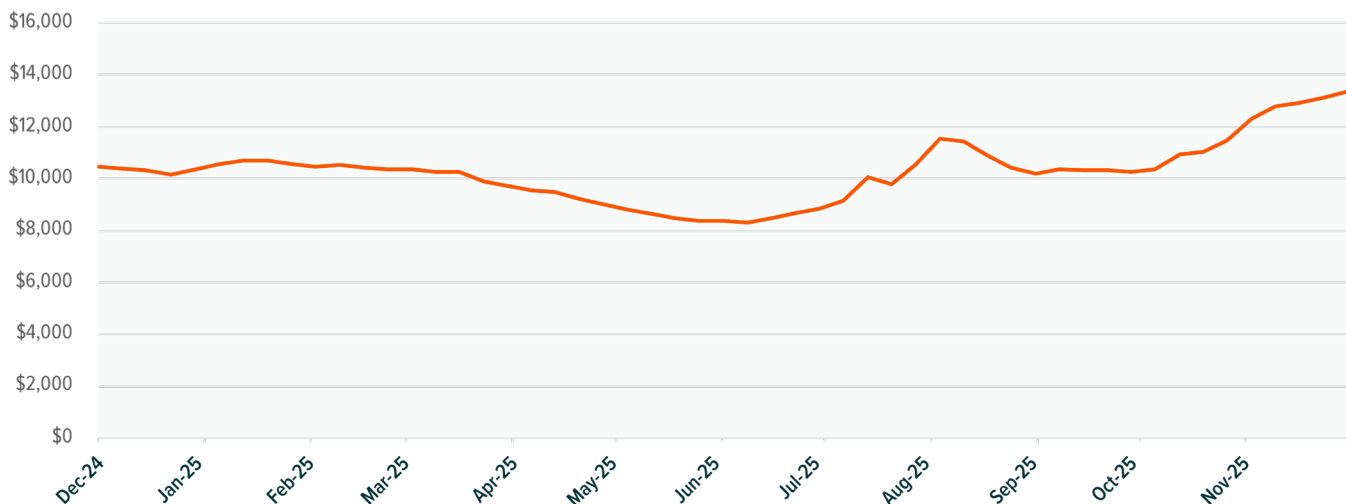
- CATL's Jianxiawo mine, accounting for ~3% of global lithium output, remains offline as the time of this writing. CATL is reported to have placed orders for external feedstock to meet existing obligations as the timeline to reopen remains uncertain.<sup>27</sup>
- December 17th saw lithium prices surge in a knee-jerk reaction to China's reported cancellation of 27 expired mining licenses in Yichun, a major lithium producing region. We note the cancellations are primarily administrative in nature and generally involve expired licenses for depleted mines, with little material impact on global supply.<sup>28</sup>

### OUTLOOK

While China's licenses for rare earths exports may ease trade tensions, we believe they likely won't address risks in critical U.S. sectors like aerospace and defense, where the PRC seeks to limit access. Such segments continue to face supply risks across critical elements like yttrium, which saw its price skyrocket over 1,500% in 2025.<sup>29</sup> Consequently, we believe continued investments across mineral supply chains are likely to persist for both Europe and the U.S. in spite of the latest trade détente.<sup>30</sup> The Trump administration also announced plans for more "historic deals" with the U.S. mining sector to boost domestic mineral production, intending to reduce U.S. reliance on foreign entities. Although the specifics of this announcement are unclear, we note this comes on the heels of the administration's direct investments in MP Materials and Lithium Americas, and could represent a potential catalyst for the U.S. mining sector in 2026.

## Lithium Prices Hit Their Highest Level in 2025 Amidst CATL's Continued Mine Outage

One-Year Lithium Carbonate Prices



Source: Benchmark (Accessed on December 17, 2025). Price Dashboard. Lithium Carbonate, Mid-Price EXW China, Min 99.5%.

U.S. imports of Chinese Rare Earths magnets hit their highest level since January 2025, following China's temporary pause on rare-earth controls. Total exports to the U.S. remain down 20%+ YoY amidst continued trade negotiations.<sup>31</sup>



## FOOTNOTES

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## GLOSSARY

**UxC, LLC:** A nuclear fuel market research and analysis firm, which provides pricing, forecasting, and consulting services across the nuclear fuel cycle.

**Uranium Spot Price:** The prevailing market price for physical uranium available for immediate or near-term delivery, typically within 90 days.

**Uranium Term Price:** The agreed-upon contract price for physical uranium for delivery over 3+ years, often across multiple deliveries.

**COMEX Copper Price:** The market price of copper futures contracts traded on the U.S.-based CME Group's Commodity Exchange (COMEX).

**LME Copper Price:** The market price of physical copper traded on the London Metal Exchange (LME).

**Uranium Concentrate (U3O8):** The powdered by-product of uranium production, produced by crushing and extracting uranium ore through chemical processes. Also known as yellow cake and used as the primary component for producing uranium-based nuclear fuels.

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