Strategic metals: from energy security to materials security

Published 26 February 2026

Nitesh Shah
Head of Commodities and Macroeconomic Research, WisdomTree Europe

Key Takeaways

- Electrification is shifting energy security from hydrocarbons to critical metals such as copper, lithium and rare earth elements.
- Supply and processing remain geographically concentrated, increasing geopolitical risk.
- The US, China and the EU are expanding strategic metal stockpiles.
- Several key metals are already tight or moving into deficit.
- The WisdomTree Strategic Metals UCITS ETF (WENU) provides exposure to metals positioned to benefit from these structural trends.

- Related Products WisdomTree Strategic Metals UCITS ETF - USD Acc, WisdomTree Energy Transition Metals, WisdomTree Battery Metals Find out more

For decades, energy security meant oil and gas. Oil shocks reshaped foreign policy. The Organization of the Petroleum Exporting Countries (OPEC) influenced global power balances. Gas pipelines defined diplomatic relationships. Control of hydrocarbons meant geopolitical leverage.

That framework is evolving.

The global shift towards electrification, including electric vehicles (EVs), renewable power generation, battery storage, grid expansion and digital infrastructure, is not reducing energy dependency. It is changing the nature of that dependency.

We are moving from a hydrocarbon-based system to a materials-intensive one and the strategic question is no longer simply: Who controls oil?

It is increasingly: Who controls the inputs into the new energy system?

Electrification is metal-intensive

Electrification requires significantly more metals than fossil fuel systems:

- EVs use multiple times the copper of internal combustion vehicles

- Batteries depend on lithium, nickel, cobalt and graphite
- Wind turbines rely on rare earth elements
- Grid expansion is copper- and aluminium-intensive

The term ‘energy transition’ is better described as an ‘energy addition.’ Legacy systems remain, while electrified systems are layered on top, increasing total materials demand.

Certain metals are therefore no longer just industrial inputs. They are becoming strategic assets.

What makes a metal strategic?

Strategic metals tend to share three characteristics:

1. **Geographic concentration** Production is often concentrated in a few jurisdictions:
    - Lithium: Chile and Australia
    - Cobalt: Democratic Republic of Congo (DRC)
    - Rare earth elements: China
2. Concentration increases exposure to geopolitical and regulatory risk.
3. **Processing bottlenecks** Mining diversification does not guarantee refining diversification. China dominates midstream processing across many battery materials and rare earth elements. Processing control often translates into pricing power.
4. **Low supply elasticity** New supply takes years to develop due to permitting, environmental scrutiny and capital intensity. In the short to medium term, supply is relatively inelastic.

Production is often concentrated in a few jurisdictions:

- Lithium: Chile and Australia
- Cobalt: Democratic Republic of Congo (DRC)
- Rare earth elements: China

Concentration increases exposure to geopolitical and regulatory risk.

Mining diversification does not guarantee refining diversification. China dominates midstream processing across many battery materials and rare earth elements. Processing control often translates into pricing power.

New supply takes years to develop due to permitting, environmental scrutiny and capital intensity. In the short to medium term, supply is relatively inelastic.

Energy security is therefore increasingly about critical material supply chain security, measured in tonnes per year rather than barrels per day.

That recognition is beginning to shape policy.

The return of strategic stockpiling

Strategic reserves were historically associated with oil. The US Strategic Petroleum Reserve (SPR) was established after the 1970s oil shocks to buffer against supply disruptions. Today, major economies are applying similar logic to metals.

Across the United States, China and the European Union (EU), policymakers are either implementing or exploring strategic reserves of critical materials. This represents a structural shift: governments are becoming active participants in metal markets for security purposes.

United States: Project Vault

The United States has launched a critical minerals initiative, often referred to as Project Vault, with approximately $12 billion in financing.

The objective is to build strategic inventories of materials essential to EVs, defence systems, semiconductor manufacturing and grid infrastructure.

The programme blends public financing with private participation, enabling companies to secure access to materials under predefined terms.

The strategic goals are clear:

- Reduce reliance on China-dominated supply chains
- Protect domestic manufacturing
- Mitigate geopolitical risk

This marks a move toward more direct state involvement in materials security.

China: strategic inventory expansion

China has long maintained strategic commodity reserves and has signalled expanded stockpiling of industrial metals, including copper.

As the world's largest consumer of many base and battery metals, China's stockpile decisions can materially influence global balances.

Strategic inventories allow China to:

- Smooth domestic supply during disruptions
- Stabilise industrial input costs
- Increase leverage in global commodity markets

While the US approach is primarily defensive, China's strategy also supports the consolidation of industrial advantage.

European Union: strategic autonomy

The EU is further along in implementation but is increasingly focused on coordinated stockpiling under the Critical Raw Materials Act.

Policy discussions include:

- Joint procurement mechanisms
- Coordinated strategic reserves
- Crisis-response frameworks

Given Europe's reliance on imports for many critical materials, stockpiling is seen as part of a broader push toward strategic autonomy.

Stockpiling in a tight market

Strategic stockpiling is most impactful when supply and demand are already balanced.

Several metals central to electrification are either in deficit or moving toward it.

When governments enter these markets as incremental buyers, the effects can be nonlinear.

Copper: the electrification backbone

Copper underpins grid expansion, renewable generation, EVs and data centres, placing it at the centre of the global electrification build-out. Yet supply growth has struggled to keep pace with rising demand, constrained by declining ore grades, lengthy permitting timelines and years of underinvestment, while visible inventories remain low relative to consumption. With limited short-term supply elasticity and new mines taking years to develop, additional demand impulses such as stockpiling can tighten a market already flirting with a structural deficit.

Silver: industrial tightness

Silver demand from photovoltaics and electronics continues to expand, reinforcing its role in energy transition and advanced technology supply chains. At the same time, mine supply growth remains constrained and is often dependent on by-product production, limiting its responsiveness to rising demand. As a result, recurring supply-demand deficits have emerged in recent years, meaning that even incremental stockpiling could tighten available float relatively quickly.

Platinum: deficit conditions

Platinum is already in structural deficit. Supply constraints in South Africa and resilient demand from autocatalysts and hydrogen-related applications have drawn down inventories.

Platinum markets are relatively small in absolute terms, meaning even modest stockpiling volumes could have an outsized effect.

Aluminium: a deficit brought forward?

Aluminium production is highly energy-intensive. Energy volatility and decarbonisation pressures have constrained capacity growth in parts of Europe.

Many forecasts suggest aluminium could move into deficit later this decade, potentially around 2028.

However, aggressive stockpiling could pull forward that timeline by removing material from the tradable system before new supply is commissioned. Markets price marginal shifts, not base-case projections.

The Inventory Effect

Strategic stockpiles do not consume metal, but they reduce liquidity.

Commodity prices are set at the margin. When inventories fall relative to consumption:

- Volatility typically rises
- Risk premia expand
- Backwardation becomes more likely
- Producer pricing power strengthens

Stockpiling introduces a new class of buyer motivated by security rather than price. In tight markets, this can amplify scarcity dynamics.

Implications for Investors

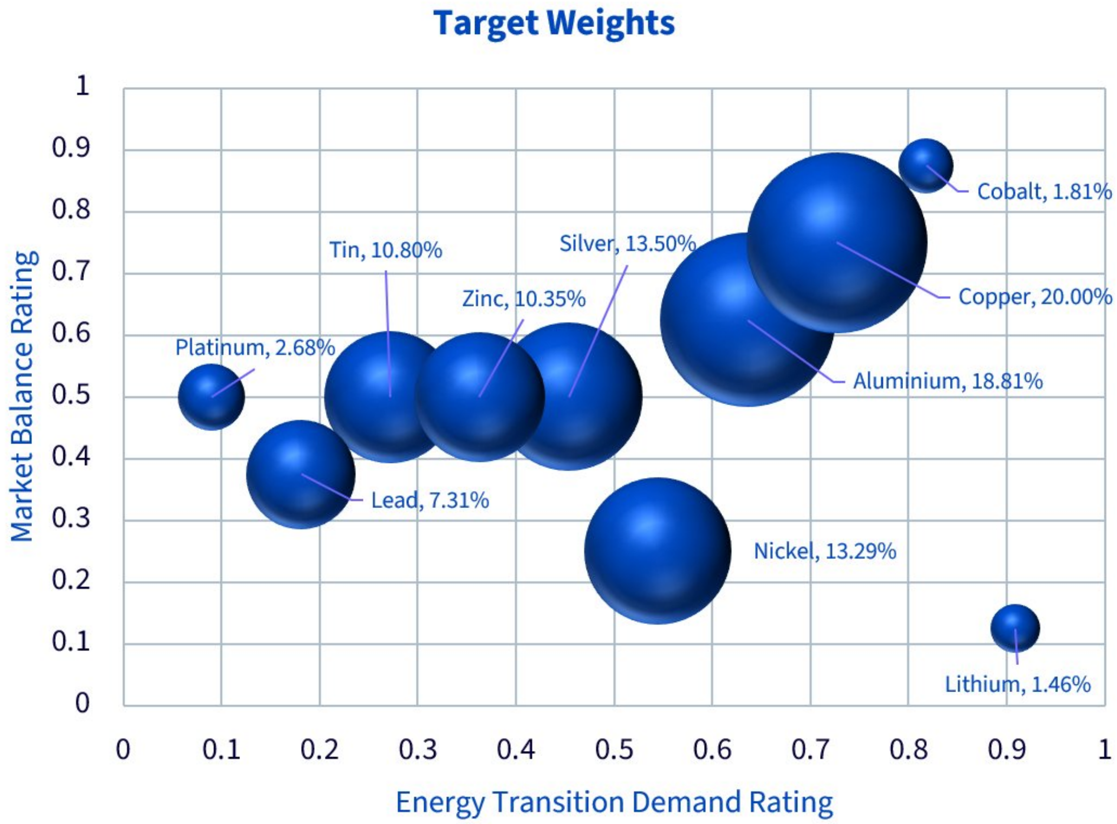
The WisdomTree Strategic Metals UCITS ETF (WENU), WisdomTree Energy Transition Metals (WENT) and WisdomTree Battery Metals UCITS ETF (WATT) are designed to provide exposure to metals positioned to benefit from electrification and tightening market balances.

Following the 12 February 2026 rebalance, weights are determined by:

- Energy transition demand growth expectations (two-thirds influence)
- Market balance assessment, where undersupplied metals score higher (one-third influence)

Metals such as copper and aluminium, combining strong structural demand with tightening balances, receive higher weights.

By incorporating both forward-looking demand growth and current supply dynamics, the strategy seeks to capture metals where policy, electrification and supply constraints converge.



Source: WisdomTree, Wood Mackenzie, based on forecasts, February 2026. Bubble size represents the target weight. Market balance ratings not considered for precious metals and not available for tin. For the purpose of the chart construction, we set the market balance rating at the midpoint (0.5) for these metals. Cobalt and Lithium weights are capped by the methodology at 5% and 2% respectively, and in practice, they are constrained by a liquidity judgment based on market conditions. Index inception: 12 January 2024.

Conclusion

Energy security is evolving into materials security. Governments are responding by stockpiling critical metals. In surplus markets, the impact may be muted and in tightening markets, it may be material.

As electrification accelerates and policy-driven demand increases, understanding inventory dynamics and supply elasticity becomes increasingly important for investors. The geopolitics of the energy system are no longer defined solely by oil flows but by metal availability. And that shift is reshaping markets.

Important Risks Related to this Article

IMPORTANT INFORMATION

Marketing communications issued in the European Economic Area ("EEA"): This document has been issued and approved by WisdomTree Ireland Limited, which is authorised and regulated by the Central Bank of Ireland. **Marketing communications issued in jurisdictions outside of the EEA:** This document has been issued and approved by WisdomTree UK Limited, which is authorised and regulated by the United Kingdom Financial Conduct Authority. WisdomTree Ireland Limited and WisdomTree UK Limited are each referred to as "WisdomTree" (as applicable). Our Conflicts of Interest Policy and Inventory are available on request. This marketing communication has been prepared for professional investors, but the WisdomTree products set out in this document may be available in some jurisdictions to any investors, subject to applicable laws and regulations. As the product may not be authorised or its oering may be restricted in your jurisdiction, it is the responsibility of every person or entity to satisfy themselves as to the full observance of the laws and regulations of the relevant jurisdiction. Prior to any application investors are advised to take all necessary legal, regulatory, tax and investment advice on the suitability and consequences of an investment in the products. Past performance is not a reliable indicator of future performance. Any historical performance included in this document may be based on back testing. Back testing is the process of evaluating an investment strategy by applying it to historical data to simulate what the performance of such strategy would have been. Back tested performance is purely hypothetical and is provided in this document solely for informational purposes. Back tested data does not represent actual performance and should not be interpreted as an indication of actual or future performance. The value of any investment may be aected by exchange rate movements. Any decision to invest should be based on the information contained in the appropriate prospectus and aer seeking independent investment, tax and legal advice. These products may not be available in your market or suitable for you. The content of this document does not constitute investment advice nor an oer for sale nor a solicitation of an oer to buy any product or make any investment. An investment in exchange-traded products ("ETPs") is dependent on the performance of the underlying index, less costs, but it is not expected to match that performance precisely. ETPs involve numerous risks including among others, general market risks relating to the relevant underlying index, credit risks on the provider of index swaps utilised in the ETP, exchange rate risks, interest rate risks, inflationary risks, liquidity risks and legal and regulatory risks. The information contained in this document is not, and under no circumstances is to be construed as, an advertisement or any other step in furtherance of a public oering of shares in the United States or any province or territory thereof, where none of the issuers or their products are authorised or registered for distribution and where no prospectus of any of the issuers has been filed with any securities commission or regulatory authority. No document or information in this document should be taken, transmitted or distributed (directly or indirectly) into the United States. None of the issuers, nor any securities issued by them, have been or will be registered under the United States Securities Act of 1933 or the Investment Company Act of 1940 or qualified under any applicable state securities statutes. This document may contain independent market commentary prepared by WisdomTree based on publicly available information. Although WisdomTree endeavours to ensure the accuracy of the content in this document, WisdomTree does not warrant or guarantee its accuracy or correctness. Any third party data providers used to source the information in this document make no warranties or representation of any kind relating to such data. Where WisdomTree has expressed its own opinions related to product or market activity, these views may change. Neither WisdomTree, nor any ailiate, nor any of their respective oicers, directors, partners, or employees accepts any liability whatsoever for any direct or consequential loss arising from any use of this document or its contents. This document may contain forward looking statements including statements regarding our belief or current expectations with regards to the performance of certain assets classes and/or sectors. Forward looking statements are subject to certain risks, uncertainties and assumptions. There can be no assurance that such statements will be accurate and actual results could dier materially from those anticipated in such statements. WisdomTree strongly recommends that you do not place undue reliance on these forward-looking statements. WisdomTree Issuer ICAV The products discussed in this document are issued by WisdomTree Issuer ICAV (“WT Issuer”). WT Issuer is an umbrella investment company with variable capital having segregated liability between its funds organised under the laws of Ireland as an Irish Collective Asset-management Vehicle and authorised by the Central Bank of Ireland (“CBI”). WT Issuer is organised as an Undertaking for Collective Investment in Transferable Securities (“UCITS”) under the laws of Ireland and shall issue a separate class of shares ("Shares”) representing each fund.

The Fund is described in a Key Information Document (KID) or Key Investor Information Document (KIID) for UK investors, and the prospectus of WT Issuer (“WT Prospectus”). A copy of the WT Prospectus and the KID / KIID is available, for EEA/UK only, in English at www.wisdomtree.eu. Where required under national rules, the KID will also be available in the local language of the relevant EEA Member State. Investors should read the WT Prospectus before investing and should refer to the section of the WT Prospectus entitled »Risk Factors¼ for further details of risks associated with an investment in the Shares. The summary of investor rights associated with an investment in the fund is available in English on WisdomTree Europe¼s website. WisdomTree Management Limited may decide to terminate the arrangements made for the marketing of its collective investment undertakings. In such circumstances, shareholders in the aected EEA Member State will be notified of this decision and will be provided with the opportunity to redeem their shareholding in the fund free of any charges or deductions for at least 30 working days from the date of such notification. WisdomTree Multi Asset Issuer PLC WisdomTree Multi Asset Issuer PLC (the “Issuer”) issues products under a Prospectus (“WTMA Prospectus”) approved by the Central Bank of Ireland, drawn up in accordance with the Directive 2003/71/EC. The WTMA Prospectus has been passported to various European jurisdictions including the UK, Italy and Germany and is available on this document. For Investors in Switzerland: This document constitutes an advertisement of the financial product(s) mentioned herein. The prospectus (in English only) and the key investor information documents (KID) (in German, French and Italian) are available from WisdomTree¼s website https://www.wisdomtree.eu/en-ch/resource-library/prospectus-and-regulatory-reports **For WisdomTree UCITS products only:** the representative and paying agent of the ETPs in Switzerland is Société Générale Paris, Zurich Branch, Talacker 50, PO Box 5070, 8021 Zurich, Switzerland. The prospectus, the key investor information documents (KIID), the articles of association and the annual and semi-annual reports of the sub-funds are available free of charge from the representative and paying agent. As regards distribution in Switzerland, the place of jurisdiction and performance is at the registered seat of the representative and paying agent.