

First Glance

# Escalating US-China rare earth tensions signal determination to decouple

The future may be parallel refining and supply systems for rare earths and associated technologies, as the US and China drift further apart

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An intensification of United States-China trade frictions, marked by a 9 October expansion of Chinese export controls on rare earth elements (REEs), and President Donald Trump's

erasing over \$1.5 trillion in value in only two days. The dispute even threatens a planned 31 October Asia-Pacific Economic Cooperation (APEC) summit meeting between Trump and Chinese premier Xi Jinping.

China controls 85% to 90% of global REE processing capacity, crucial for supply chains including batteries, semiconductors and precision-guided munitions. It has massively upgraded controls announced in April, which covered raw exports of seven rare earths. Five more (holmium, erbium, thulium, europium and ytterbium) have now been added, while restrictions have also been extended to refining technologies, equipment and products containing as little as 0.1% Chinese-processed REEs. Furthermore, planned foreign military or dual-use applications of REEs will now be blocked automatically.

The controls also incorporate elements such as a 'Chinese persons' rule that prohibits Chinese nationals from engaging in overseas REE activities without approval, similar to US restrictions on sensitive technologies. Given the difficulties in operationalising such a rule, China might introduce an 'entity list' to monitor end-users of REEs globally, again mimicking the US. This would further amplify the global impact of China's export controls.

The sectors and activities potentially most affected by the Chinese measures include US defence programmes, including up to 30% of Pentagon initiatives, such as F-35 avionics, which face potential delays from REE shortages. Boeing could encounter assembly issues because of constraints on components. In semiconductors, Nvidia, Intel and Apple will certainly see costs rising and, potentially, delays. Producers of electric vehicles in the US (including Tesla) risk production cuts.

In Europe, companies including Airbus, Volkswagen and electric vehicle producers will be hit hard. Finally, Taiwan's chipmaker, TSMC, could be significantly affected because it needs rare earths for the production of AI semiconductors.

The provocative timing of the Chinese move, just before the APEC summit, appears tied to recent US actions and, potentially, Taiwan-related developments. On 29 September, the US Commerce Department implemented the 'affiliates rule', extending entity-list restrictions to

and, via the provocatively named FIGHT China Act, to block outbound investments in the Chinese semiconductor, AI and quantum sectors. These steps reflect a bipartisan push for economic security.

In relation to Taiwan, US Commerce Secretary Howard Lutnick proposed on 30 September a 50-50 split in production of chips destined for the US, to enhance US domestic output and Taiwan's security. Taiwan's president rejected this on 1 October, citing risks to its 'silicon shield' – the belief that Taiwan's predominance in semiconductors protects it from Chinese interference – and noting TSMC's plans to locate only 20% of its advanced production in Arizona by 2030.

Nevertheless, China likely worries that Taiwan might transfer its technology and advanced chip capabilities to the US. Furthermore, the extraterritorial aspects of China's new export controls could potentially hit TSMC's chip sales to US firms by requiring Beijing's approval for essential materials. The potential inclusion of TSMC on a Chinese entity list would further complicate the US AI supply chain.

Calls from Trump and in the Chinese media for renewed negotiations to defuse tensions, have not stopped continued escalation from both sides. China announced on 10 October an antitrust probe into Qualcomm over AI chip practices, following an investigation into NVIDIA in September and inspections of both companies' operations in China. China also ratcheted up fees on US-linked vessels. Meanwhile, US Treasury Secretary Bessent has threatened countermeasures on Chinese students in the US.

Even if a truce is reached, saving the Trump-Xi in-person meeting at the APEC summit, the increasing mistrust and the potentially major consequences of China's announced export controls, coupled with the additional 100% tariffs on the US side, will lead to an even faster decoupling of supply chains. As the US suffers from REE shortages – or the threat thereof – the US will invest more in sourcing/refining REEs elsewhere. China will continue to reduce its dependence on US technology and the US market, accelerating self-reliance. Global

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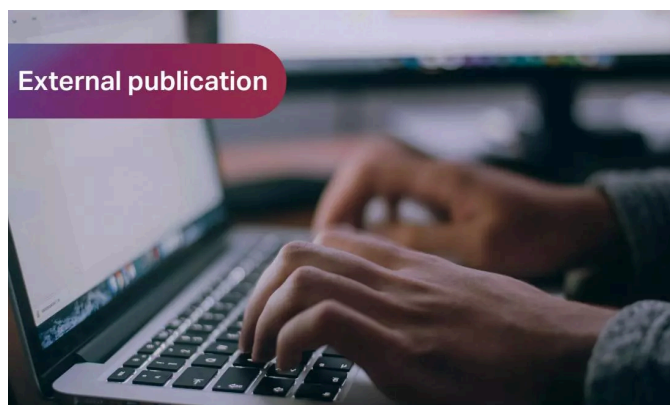
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