

This PDF is auto-generated for reference only. As such, it may contain some conversion errors and/or missing information. For all formal use please refer to the official version on the website, as linked below.

# Opinion – Changing Frontiers of Sino-US Technological Competition

<https://www.e-ir.info/2025/11/09/opinion-changing-frontiers-of-sino-us-technological-competition/>

XINGER WEI, NOV 9 2025

In December 2024, China's State Administration for Market Regulation (SAMR) opened an antitrust investigation into US chipmaker Nvidia, alleging that the company failed to honour commitments attached to its 2020 purchase of the Israeli networking firm Mellanox. By September 2025, the regulator issued a preliminary finding that Nvidia had violated China's anti-monopoly law and would continue its probe. This apparently commercial case illustrates how Sino-US technology competition has shifted from product rivalry to legal warfare. As Washington tightens export controls on cutting-edge chips, Beijing is increasingly using its own legal framework to regulate foreign firms, signalling that the contest is becoming "legalised".

SAMR's investigation into Nvidia has focused on two key issues. The first concerns Nvidia's alleged bundling of Mellanox networking equipment with its GPUs, which could restrict customers' access to competing accelerators. The second involves the launch of the China-specific H20 chips—modified to comply with U.S. export controls—an act seemingly inconsistent with Nvidia's earlier pledge to provide Chinese clients with fair and non-discriminatory access to its products. Beyond procedural considerations, the timing of the investigation and its preliminary findings may also reflect Beijing's growing confidence in domestic semiconductor capacity. A comparison of Nvidia's core product lines further suggests that Chinese firms are catching up across multiple fronts and have already developed viable alternatives.

Within the broader context of China-US technology competition, the investigation reflects China's resolve to respond symmetrically to Washington's tightening of export controls. The United States repeatedly updated its export-control lists in 2023–2024, restricting sales of advanced AI chips by Nvidia and other suppliers to Chinese customers. Beijing's probe into the Mellanox deal is therefore more than a routine compliance check; it is a strategic countermeasure demonstrating that China will no longer rely solely on tariffs or trade barriers but will instead enforce its own legal regime to regulate foreign firms and protect national technology interests.

Chinese authorities have deployed an array of tools—including antitrust enforcement, customs inspections and informal administrative guidance—to constrain Nvidia's operations. Media reports describe customs officials intensifying inspections of H20 shipments and state-owned enterprises being instructed to slow purchases and test domestic alternatives. Such soft restrictions, though legally elastic, create space for domestic GPU makers and turn regulation into an industrial-policy instrument. On the policy front, China emphasises supply-chain self-sufficiency, elevating semiconductor substitution to a national strategy and channelling government procurement and subsidies towards local GPU developers such as Huawei's Ascend and startups like Cambricon.

Beijing's growing confidence in deploying these legal instruments also stems from shifts in the global supply chain. The United States continues to face structural vulnerabilities in semiconductor production, relying heavily on Asian contract manufacturers such as TSMC for advanced fabrication. Meanwhile, Chinese chipmakers have narrowed capability gaps and gained political backing to assert themselves. This asymmetry enables Beijing to transform regulatory enforcement from a defensive measure into a proactive instrument of competition.

The Nvidia case underscores a trend in which both sides wield legal instruments as strategic weapons. Washington

# Opinion – Changing Frontiers of Sino-US Technological Competition

Written by Xinger Wei

invokes “national security” to justify export bans and flexible licensing, while Beijing cites “fair competition” to justify antitrust interventions. The rhetorical symmetry masks a deeper legal tug-of-war over control of the rules governing the global tech industry.

This regulatory contest reverberates beyond China and the United States. Third-party countries and multinational firms must navigate multiple compliance regimes, bearing the costs of divergent antitrust and export-control frameworks. Global trade and competition law risks fragmentation, and multilateral forums such as the WTO struggle to mediate bilateral legal conflicts. Should China and the US establish parallel legal spheres in advanced technologies, global governance may drift towards a dual-system equilibrium.

In October 2025, the legal chess game escalated again. On 9 October, China’s Ministry of Commerce issued new export-control notices imposing licensing requirements on rare-earth-based materials, semiconductor technologies and superhard materials and—for the first time—introduced an extraterritorial “50% rule” under which foreign companies owned 50 percent or more by listed entities are presumed ineligible for licences. The following day, Donald Trump announced on social media that he would impose a 100 percent additional tariff on all Chinese imports by November 1, in retaliation for China’s rare-earth export restrictions. These rapid-fire moves illustrate how both governments are deploying legal instruments across multiple sectors to gain leverage.

Multinational tech giants are shifting from market competitors to policy agents of national strategy. They serve both as instruments of U.S. technological outreach and global influence, and as targets through which China demonstrates regulatory sovereignty and institutional confidence. This dual identity draws these firms into institutional rivalry, where their business decisions are increasingly shaped by geopolitical forces.

China is seeking to gain an advantage in the ongoing “battle of rules” by shaping a new order of trade and regulation. The future contest will not only centre on who can build the most powerful chips, but on who can set the rules governing their use and exchange. For companies and policymakers worldwide, this represents not only a challenge but also a critical institutional transformation they cannot afford to ignore.

---

## About the author:

**Xinger Wei** is a doctoral researcher at the Manchester Institute of Innovation Research (MIIIR), University of Manchester. Her research explores how Artificial Intelligence shapes innovation performance and knowledge diffusion amid geopolitical tensions. Her current work focuses on the twin transition between digital and green technologies and examines how the China-US rivalry is reshaping the global landscape of AI technologies through patent-based analysis.