

Geopolitics Is Now a Business Problem

Supply Chains, Choke Points, and What CEOs Should Track

Pranay Kotasthane

Takshashila Institution

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Three Things I Want You to Leave With

1. Your supply chain is now a **geopolitical surface**. Every sourcing decision, technology partnership, and location choice carries geopolitical risk — whether you see it or not.
2. China has built a **comprehensive legal architecture** for economic coercion — seven foundational laws, seven enforcement domains. This is not ad hoc retaliation. It's a system. And it is designed to create **compliance conflicts** for firms caught between the US and China.
3. But China is **overplaying its hand**. Its escalating restrictions are accelerating China+1, funding substitutes, and creating a window of opportunity for Indian firms that understand where the real vulnerabilities are,

How Did We Get Here?

The globalised high-tech economy wasn't built through coercion. It was built through **comparative advantage**.

- ▶ Firms established GCCs, offshored design, transferred technology — because it was advantageous to them.
- ▶ Every country that built a local semiconductor industry began with US technology transfer. *Including China*.

The weaponisation kicked in when the powerful realised the positive-sum game had worked too well — when the catch-up threatened the lead. October 2022 (US semiconductor controls), May 2025 (AI Diffusion Rule), and China's retaliatory mineral restrictions — all happened in the last three years.

Trend 1: Your Procurement Team Is Now a Geopolitical Actor

- ▶ Governments are willing to incur the costs of high-technology decoupling.
Practice of tech geopolitics precedes its theory — governments acted first, then rationalised.
- ▶ Chips, AI compute, critical minerals, telecom equipment, battery materials, pharma APIs — **every major input category now has a geopolitical overlay.**
- ▶ This is not a “trade war.” It’s a selective chokehold. The US wants China to *buy* trailing-edge chips but not *make* leading-edge ones. China wants to control the ceiling of everyone else’s mineral access.
- ▶ The result: sourcing decisions that were once purely commercial are now dual-use decisions.

Trend 2: The Era of the Stateless Corporation Is Over

Every major tech company is now a geopolitical actor — whether it wants to be or not.

- ▶ Some companies will hedge, most will comply. Intel's stance on China, bricked stolen tractors in Ukraine, domestic technology industrial policies across the G7.
- ▶ **China's Decrees 834, 835, and 837** have created a counter-compliance regime. 834 defends Chinese supply chains. 835 punishes foreign firms for complying with US sanctions. 837 controls Chinese outbound investment.
- ▶ The question for firms is no longer *whether* to take a position, but **which side of the bifurcation** to build for.

The Idea of a ‘Geopolitical Enterprise’

Figure 8.3 Enterprise-Level Business Capabilities Versus Geotech Statecraft

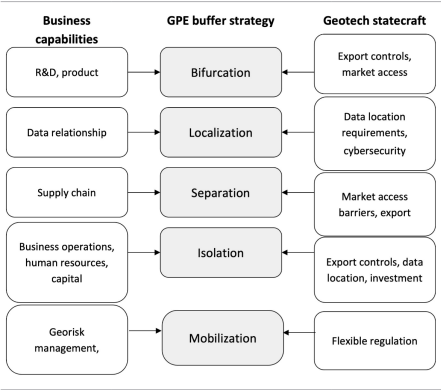


Figure 1: Source: Tech Cold War, Baums and Butts

Trend 3: Fragmentation Is a Tax on Your Business

- ▶ Additional capacity due to geopolitics will create **10% inefficiency** in total wafer capacity by 2030 (ASML, 2022).
- ▶ “A very serious decoupling scenario could cost up to **7 percent of global GDP**” (Gita Gopinath, IMF).
- ▶ Domestic production requirements are becoming inevitable across high-tech sectors — and **the tab lands on your margins, your consumers, and your capex**, not on the geopolitical strategists.

China Has Built a System, Not a Set of Reactions

Between 2020 and 2026, China enacted **seven foundational laws** and built **seven enforcement domains** covering goods, entities, technologies, supply chains, counter-extraterritorial measures, investments, and data.

- ▶ **National Security Law** (2015) — umbrella authorisation for all downstream instruments
- ▶ **Export Control Law** (2020) — covers dual-use items, catch-all provision, extraterritorial reach
- ▶ **Anti-Foreign Sanctions Law** (2021) — compliance with foreign sanctions can itself trigger liability
- ▶ **Data Security Law** (2021) — three-tier data classification, cross-border transfer restrictions
- ▶ **Foreign Relations Law** (2023) — codifies the right to retaliate across any sector

This is the most comprehensive legal architecture for economic statecraft any country

The Compliance Trap

This is the slide that should worry you most.

- ▶ **Decree 835** (April 2026): if your firm complies with US export controls affecting Chinese entities, **you may be violating Chinese law**. Prohibition Execution Orders carry criminal penalties.
- ▶ The **Anti-Foreign Sanctions Law** gives Chinese entities a **private right of action** — they can sue you in Chinese courts for complying with foreign sanctions. Actual damages plus punitive damages.
- ▶ **The MOFCOM Blocking Statute** requires mandatory reporting within 30 days of receiving any foreign sanctions notice affecting your China business.
- ▶ If you operate in both US and Chinese jurisdictions, you are already in a **dual-compliance conflict zone**.

What's Actually Under Chinese Control: The Escalation

The velocity of escalation is the pattern to track:

- ▶ **Jul 2023:** Export licences for Gallium and Germanium
- ▶ **Dec 2023:** Ban on export of rare earth processing technologies
- ▶ **Sep 2024:** Export controls on Antimony
- ▶ **Dec 2024:** Gallium, Germanium, Antimony licences denied to US buyers
- ▶ **Apr 2025:** Licences for seven rare earth elements and magnets (defence, energy, automotive)
- ▶ **Oct 2025:** Battery technology export controls; rare earth restrictions for advanced semiconductor production (14nm logic, 256-layer memory)
- ▶ **Jan 2026:** Targeted bans on dual-use items to Japan (Indium, Antimony, Graphite, Tungsten)

Each round is broader and more downstream than the last. The pattern: China is moving from raw materials to processed materials to components to technologies.

China Is Making China+1 Happen

- ▶ Japan's rare earth dependence on China: **90% → 60%** after the 2010 Senkaku restrictions. Consumption halved. Urban mining, stockpiling, and substitute R&D were triggered.
- ▶ Rare earth magnet re-industrialisation is underway in the US: MP Materials, Vulcan Elements (\$335M raised + \$620M Pentagon loan), REAlloys-JOGMEC partnership, Solvay-Noveon recycling supply chain.
- ▶ **Rising prices of controlled materials fund the substitutes.** High prices are not a problem — they are a pathway to a solution.
- ▶ If Chinese companies can build a DeepSeek without the most advanced GPUs, firms across the world can build electric motors without Chinese rare earth magnets.

China's overuse of export controls has made China+1 not just a preference but

1. “We Built a Space Programme, So Chips/AI Are Similar.” No.

Space and nuclear sectors have:

- ▶ Small output demand
- ▶ Manageable capital outlay
- ▶ Shorter supply chains that can be indigenised substantially

Semiconductors, AI training infrastructure, and battery supply chains are the opposite: hyper-globalised, capital-devouring, with choke points at every stage.

Civil technologies are now far more cutting-edge than military ones. Aircraft don't use the chips that go into training a large language model. If your board thinks chip fabs are like ISRO programmes, the capex surprise will be brutal.

2. “All Our China Dependencies Are Vulnerabilities.” No. Three Tests.

The case of China's Gallium & Germanium controls vs US semiconductor export controls is instructive. **Three tests** determine whether a dependency is actually weaponisable:

- ▶ **Substitutability:** Can you switch? Ga/Ge have substitutes. EUV lithography does not.
- ▶ **Supply chain dominance:** How concentrated is control? EDA tools: 97% US. Rare earths: 80% China for processing, but reserves exist globally.
- ▶ **Acquired capability gap:** How long to build an alternative? This varies enormously.

Take your top ten China-sourced inputs. Apply these three tests. The ones that fail all three are your real vulnerabilities. The others are manageable risks.

3. “China Has the Upper Hand.” No. Its Tech Stack Is Vulnerable.

Linear projection models don't account for:

- ▶ The FDI-led technology transfer party is over — across semiconductors, AI, and biotech. The mechanism that enabled China's rise is now shut.
- ▶ Diffusion rates for Chinese tech products are lower than assumed (Ding, 2024).
- ▶ Digital exports face a trust deficit (TikTok, Huawei, Chinese AI models globally).
- ▶ **Creative insecurity cuts both ways:** China's workarounds (DeepSeek, SMIC 7nm) prove the model works. Others will use the same playbook against China's mineral controls.

Tools of Statecraft in High-Technology

Assumed Impact on National Power	Strategic Objective	Instruments Used	Underrated Repercussions
Technology X underlies other critical & emerging tech	Denial	Secondary Sanctions	Difficult to sustain; incentives for backroom deals with adversary
		restrictions on movement of high-tech labour	Can slow down technical progress
		Export controls, End-use restrictions	Encourages adversary to build local capacity in a focused manner
		Investment restrictions	Can slow down technical progress
	Outpace adversary	industrial espionage to steal secrets, targeted poaching	Invites stricter controls on professionals from the stealing country
		Build partnerships for resilience	Self-sufficiency is a myth.
		Indigenisation and industrial policy	Difficult to sustain.
		Sabotage	Self-damage
		Increase dependence and control	Helps manage the adversary's pace to an extent
	Remove major bottlenecks	Promote Open Source	Still a nascent field
		Build partnerships	Self-sufficiency is a myth.
Technology X can have direct cognitive effects	Influence minds and actions	Espionage	Limited impact on national power
		Decouple information flows	
		Disinformation	

Figure 2: Source: Author

The Playbook

- ▶ **Technological:** SMIC achieved 7nm without EUV. RISC-V is an open-source ISA the US cannot block. DeepSeek trained competitive AI on constrained hardware.
- ▶ **Substitution:** Four types underway in critical minerals — material-for-material, system-for-system, process-for-process, and efficiency improvements. Rare earth magnets are vital but not indispensable.
- ▶ **Coalition:** Japan after 2010 is the corporate playbook — stockpiling, urban mining, partner diversification, substitute R&D. Result: dependence halved, consumption halved.
- ▶ **Structural:** The UK bet £1 billion on compound semiconductors (GaN, SiC) — an asymmetric niche, not full-spectrum self-sufficiency. India's GCC ecosystem is a structural workaround: embedded so deeply in global design flows that restricting it is costly for everyone.

India's Hand

1. India has complementary strengths — the foreign policy outlook on tech is **not defensive**
2. Likelihood of technology transfer is higher than during the Cold War — the US needs partners
3. **Human Capital is the dark horse** — the US faces a 300,000 engineer shortfall by 2030. India's 1,600+ GCCs are the world's largest pool of chip design talent
4. Plurilateral cooperation is a necessity, not a choice
5. **Leverage is exhaustible. It gets created through dense interrelationships,** not through one-off deals

The China+1 Opportunity for Indian Firms

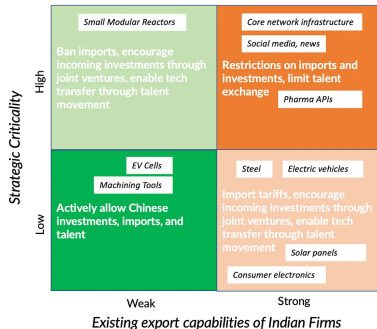
China's escalating restrictions are creating market openings:

- ▶ **Semiconductor design services:** India does 20% of global chip design. As US-China tech decoupling accelerates, Indian design houses become the trusted neutral partner.
- ▶ **Pharma APIs:** India already supplies 40% of US generics. China+1 in API sourcing is not hypothetical — it's a procurement trend underway.
- ▶ **EV batteries and solar:** China dominates, but overcapacity and trade tensions are pushing manufacturing diversification. Gujarat, Tamil Nadu, and Rajasthan are receiving FDI that would have gone to China three years ago.
- ▶ **GCC expansion:** 1,600+ centres, 1M+ employees. This is India's most underrated geopolitical asset — and it's almost impossible to weaponise because the talent is embedded, not exportable.

India's Approach to Chinese Tech: A Framework

Calibrated by **strategic criticality** and **existing export capabilities of Indian firms**.
Not a blanket ban, not an open door — a differentiated strategy.

A Framework for India's Approach Towards
Chinese Imports, Investment, and Talent



Four Things to Do on Monday

1. **Audit your China exposure this quarter.** Map your top sourcing dependencies through the three tests - substitutability, supply chain dominance, capability gap. Separate real vulnerabilities from manageable risks.
2. **Map the compliance trap.** If you operate in both US and Chinese jurisdictions, your legal team needs to assess Decree 835 exposure.
3. **Track the escalation velocity.** China's export controls have expanded every quarter since mid-2023.
4. **Build from India's strengths.** Design talent, GCC depth, pharma capacity, and a foreign policy that is not defensive. Think *Atmashakti*, not *Atmanirbhar*.

