

## The age of strategic supply chains



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In today's environment, where geopolitical tensions threaten the cohesion of the global economy, building more resilient supply chains has become a strategic imperative. Companies must navigate a landscape defined by fluctuating demand, rising policy intervention, and increasingly unpredictable disruptions. Yet for many manufacturers, full disengagement from offshore suppliers remains impractical. For global businesses, resilience is no longer just about contingency—it's about rebalancing without unravelling.

The age of seamless global supply chains may be coming to an end. Today, some of the world's most critical industries—from technology and energy to defence and industrials—are dependent on a semiconductor ecosystem that is increasingly fragmented and geopolitically fraught. Bottlenecks are no longer occasional glitches but structural realities.

An obvious example would be U.S. trade restrictions, which have specifically targeted China's ability to manufacture advanced artificial intelligence (AI) chips. In response, China's Ministry of Commerce imposed export controls on seven rare earth elements (REEs)—including dysprosium, terbium, and gadolinium—vital to the production of magnets used in high-performance computing, electric vehicles, and power grids.<sup>1</sup> These materials now require special export licenses, heightening supply uncertainty across multiple sectors. Supply chain friction isn't theoretical—it's already manifesting in real-world choke points.

Imagine a data centre in Texas—designed to power the next wave of AI computing—sitting idle because it's waiting on high-voltage transformers stuck at a port in Shenzhen. The U.S. grid can't expand fast enough, not for lack of ambition, but because the specialised magnets needed for advanced transmission gear rely on rare earth elements almost entirely sourced from China. What good is innovation if the infrastructure can't catch up?

<sup>1</sup> Center for Strategic & International Studies, 'The Consequences of China's New Rare Earth's Export Restrictions', <https://www.csis.org/analysis/consequences-chinas-new-rare-earths-export-restrictions> <sup>2</sup> The Budget Lab at Yale, as of June 17, 2025

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“Supply chain resilience is not merely about avoiding downside, but enabling long-term optionality, sustained innovation, and superior capital efficiency.”

## Resilience by design: evolving procurement & environmental risk models

Cost-efficiency may provide a significant competitive advantage in the absence of disruptions. For decades, a Japanese automaker's "just-in-time" (JIT) operations management model was celebrated as an efficiency-focused strategy, ensuring materials were delivered precisely when required to minimise inventory costs, until the 2011 Tohoku earthquake and tsunami revealed the inherent vulnerabilities of highly optimised supply chains.<sup>2,3</sup>

The COVID-19 pandemic in turn prompted many businesses to adopt a "just-in-case" inventory model to mitigate losses from unexpected interruptions. By 2023, as pandemic-related challenges subsided, some organisations transitioned back to JIT practices despite persistent supply chain risks, influenced by the increased costs associated with maintaining substantial inventories in an environment of high interest rates and inflation.<sup>4</sup>

These cyclical responses point to a deeper truth: resilience now lies in strategic flexibility, not dogmatic adherence to any one model. But building resilience today requires more than buffer inventory or supplier diversification—it demands accounting for the physical impacts of climate change and natural resource scarcity. Heatwaves, droughts, floods and extreme weather events are disrupting logistics networks, industrial output, and raw material availability with increasing frequency.

One underappreciated risk is water scarcity. From semiconductor fabs in Arizona to pharmaceutical manufacturing in India, access to consistent water supply is emerging as a critical constraint. Climate-related risks are no longer hypothetical—they are quantifiable disruptions. As such, resilience requires integrating climate risk mapping, scenario analysis, and adaptation strategy into procurement and capital planning.

## Industrial policy as a market shaper

The reconfiguration of supply chains is no longer solely a corporate exercise—countries are becoming strategic actors in market formation. A striking example is the U.S. Department of Defence's equity stake in the only fully integrated rare earth producer in the U.S.<sup>5</sup> To support domestic resilience, the government has provided minimum

price guarantees for long-term orders—effectively underwriting investment in a sector plagued by cost volatility and geopolitical risk.<sup>6</sup> In this new landscape, industrial policy isn't peripheral—it's a central force shaping supply dynamics. For investors, this marks a shift: state-led incentives, subsidies, and procurement models are now critical variables in evaluating long-term supply chain resilience, particularly in areas such as critical minerals, semiconductors, and defence manufacturing.

## Investing in resilience: quality companies leading the way

For long-term investors, the reconfiguration of global supply chains doesn't just present a risk to be managed but also an opportunity to identify companies that convert resilience into competitive advantage. In our view, supply chain resilience is increasingly a marker of operational excellence, pricing power, and strategic foresight—hallmarks of the quality companies we favour. With that in mind, supply chain resilience has been a thematic engagement topic for the team this year, as we seek to assess how companies we own are tackling the potentially financially material risk of supply chain disruption.

Legrand is a strong example of a company addressing supply chain resilience. The company has proactively mapped climate exposure and geographic risk across its value chain. During tariff-related volatility, its U.S. operations assessed not only their own exposure to China and Mexico, but also that of key suppliers, enabling clear communication with stakeholders. Legrand also avoids single sourcing, including in vulnerable areas like Taiwan, where it is actively widening its supplier base.

Similarly, Safran is working to desensitise its reliance on Russian titanium and Chinese REE, adapting to shifting regulations via contractual clauses and flexible sourcing. In ASML's case, supply chain resilience emerged as a necessity from the outset, requiring the organisation to actively invite companies to collaborate, balancing deep partnerships with growing oversight of risks, particularly around rare earths. The company is expanding upstream visibility, dual-sourcing selectively, and investing in climate resilience, all while navigating export controls and tariff-related pressures that underscore its pivotal role in the semiconductor value chain.

<sup>2</sup> Supply Chain Dive, <https://www.supplychaindive.com/news/toyota-semiconductor-shortage-earthquake-inventory-ihs-gartner-forecast-2022/600193/>

<sup>3</sup> Hirofumi Matsuo, 'Implications of the Tohoku earthquake for Toyota's coordination mechanism: Supply chain disruption of automotive semiconductors', *International Journal of Production Economics* Volume 161, March 2015, Pages 217-227

<sup>4</sup> Global Data, 'Supply Chain Disruption – Thematic Intelligence, 14 May 2022

<sup>5</sup> MP Materials, <https://investors.mpmaterials.com/investor-news/news-details/2025/MP-Materials-Announces-Transformational-Public-Private-Partnership-with-the-Department-of-Defense-to-Accelerate-U-S-Rare-Earth-Magnet-Independence/default.aspx>

<sup>6</sup> SFA Oxford, <https://www.sfa-oxford.com/market-news-and-insights/sfa-pentagon-and-mp-materials-forge-u-s-ree-independence/>

In a world where disruption is becoming the norm, understanding corporate supply chains remains essential—not only in the face of unresolved trade tensions, but also in anticipation of deeper, systemic shifts in the global order. Ultimately, these examples show that resilience is not merely about avoiding downside. It is increasingly about

enabling long-term optionality, sustained innovation, and superior capital efficiency. In a fragmented world, we believe companies that invest early and intelligently in supply chain durability will be structurally better positioned—and that resilience may well become the new alpha.

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