



Mind the (supply) gap: balancing cost and resilience in cross-border value chains

July 2026



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Executive summary

- The coming decade will test businesses' ability to balance cost, service and resilience in the face of competing global pressures.
- Geopolitics and government policy often push businesses toward more localized footprints, while economics and innovation often pull the other way.
- In this environment, business leaders may need new toolkits for making short- and long-term decisions on where the movement of people, services, IP, data, capital and goods will need to be local vs. global.
- A key structural constraint for both policymakers and business leaders on whether to go local or global will be the affordability of supply chain localization and decoupling.
- EY-Parthenon teams estimate that, through 2050, it would cost the US, Eurozone and UK around US\$23.6 trillion to replicate China-linked supply chains, with significant investment needed in both tangible and intangible capabilities.
- Given these significant challenges, a more likely outcome is partial and uneven decoupling where the balance between local and global varies by sector, product, market and value chain node.
- Successful businesses may therefore take a case-by-case approach, distinguishing transient shocks from structural shifts, quantifying exposure to both external and internal triggers, and planning through scenarios rather than single outcomes.

A new form of globalization where economics, innovation and geopolitics can pull in different directions

During the first two decades of this century, the value of indirect exports globally more than tripled to US\$11 trillion per year.¹ The surge was fueled by China's entry into the World Trade Organization and accelerated global trade integration. The share of goods – textile, machinery, computer and electrical equipment – bought by US consumers that contained raw materials or components originating from China increased from 3.4% in 2000 to 14.4% in 2022.² Dependency also rose rapidly in upstream value chains, including processed rare-earth metals, where China accounts for around 90% of global supply.³

In the past decade, however, global trade and commerce have been reshaped by a more complex set of pressures, including geopolitical risk, trade restrictions, new sustainability requirements and interacting with emerging technology. In the latest EY-Parthenon CEO Outlook survey, 56% of CEOs ranked geopolitical tensions, instability and conflicts among the top two most significant risks to their businesses over the next 12 months – a significant shift from just a few years ago.⁴

This new environment can create sudden and material changes for businesses. After the US Government imposed export restrictions on critical technology and software used by a major Chinese smartphone and telecoms equipment manufacturer in 2018, the Chinese smartphone producer's share of the global smartphone market fell from 17% to 4% within two years.⁵

More recently, ongoing disruptions in the Strait of Hormuz and wider Middle East have been forcing businesses to reassess assumptions around energy flows, freight availability, specialist inputs, inflation expectations and business continuity.

None of this means that the economic logic of globalization has disappeared. With the end of cheap money, softening demand and accelerated technology disruption, businesses still need to manage cost, attract investment and encourage innovation. This creates a pull toward economies of scale and the continued cross-border flow of people, data and ideas.

This tension has given rise to a new form of globalization: one in which resilience and greater emphasis on sovereign capability in some value chains coexist with continued large volumes of global trade in others.

Many businesses have struggled to adapt their operating models to this environment. Some have remained anchored to the model of previous decades, where minimizing cost created long, lean networks with limited capacity to absorb shocks. Others have over-corrected by localizing production prematurely and committing capital without a clear resilience performance benefit. One example: tying up working capital unnecessarily by stockpiling to create a buffer against a misjudged geopolitical disruption.

Assessing these trade-offs is often challenging. So, instead of jumping from one policy headline to the next, it can be helpful to start by focusing on the structural drivers underpinning global trade.

1. WTO et al., 'Global Value Chain Development Report 2021: Beyond Production', 2021
2. OECD, 'Trade in Value Added (TiVA) 2025 Edition: Origin of value added in final demand', 2025
3. European Parliamentary Research Service, 'China's rare-earth export restrictions', November 2025
4. EY-Parthenon, 'CEO Outlook', May 2026
5. Asian Development Bank et al., 'Global Value Chain Development Report 2021', November 2021

Case study: balancing cost and resilience in trade with China

The challenge is especially visible in China-linked supply chains. The interdependence between China and Western markets over the past 25 years has grown particularly strongly in sectors like machinery, computers, electronics and automotive. Each of these combines substantial trade flows with exposure to policy, technology, energy, logistics and security risks, making them a useful case study for the trade-offs now facing governments and businesses.

The extent to which these supply chains can become more local or regional has become a central policy and boardroom question, influencing decisions on tariffs, software restrictions, industrial subsidies, localization requirements and large-scale public investment in advanced manufacturing, including semiconductors.

Recent disruptions linked to the conflict in the Middle East have also highlighted how East-based manufacturing networks are exposed not only to China-specific policy risk, but also to energy, industrial input and shipping chokepoints.

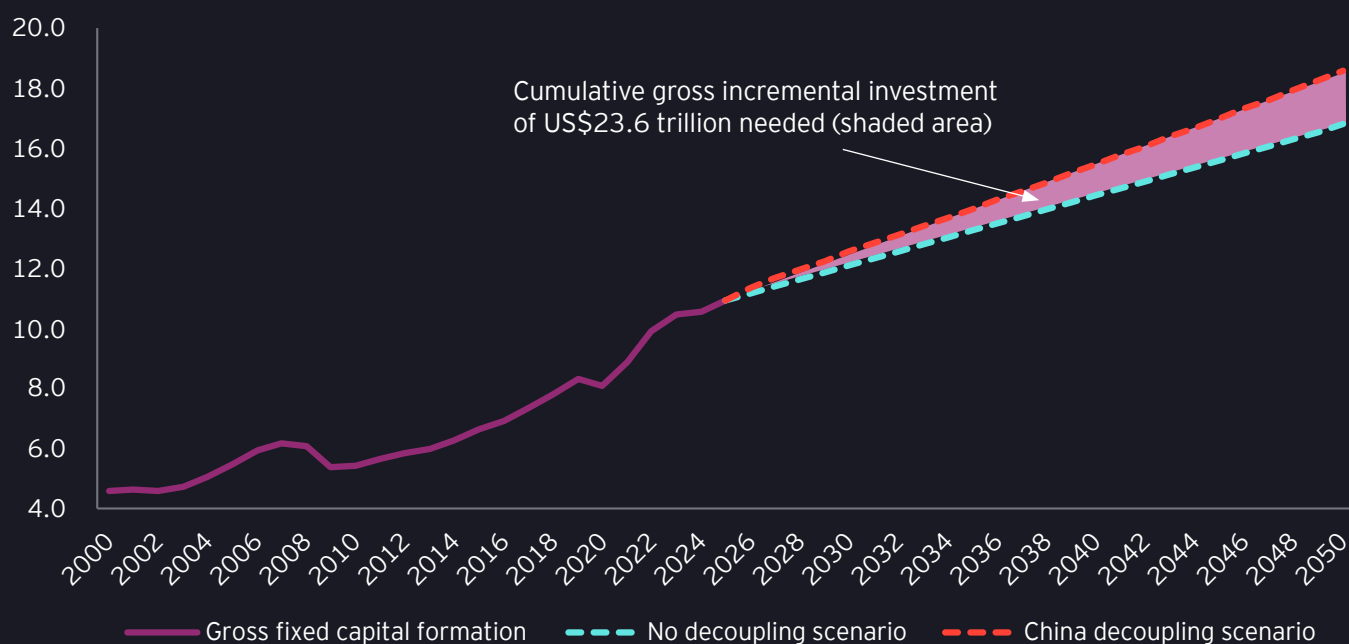
This strengthens the case for more localized or regionalized resilience in selected critical nodes. But does it mean a world of complete self-sufficiency and decoupling?

The capital expenditure requirement to duplicate supply chains

To illustrate how these trade-offs play out at both the macro and business level, EY-Parthenon teams analyzed the required investment to duplicate and localize supply chains currently crossing China and the US, UK and Eurozone.

EY-Parthenon teams estimate that duplicating these supply chains would require around US\$23.6 trillion of capital investment through 2050 across the US, Eurozone and UK: US\$13.7 trillion for the US, US\$9.1 trillion for the Eurozone and US\$0.8 trillion for the UK.⁶ This does not include the potential reciprocal impact on China itself.

Gross fixed capital formation for the US, UK and Eurozone, (in US\$ trillion)



6. Our approach uses the OECD Trade in Value Added (TIVA) database, 2025 edition, to trace China-origin value added in domestic final demand and gross exports and convert the phased value-added gap into a China gross-output equivalent. After mapping China gross-output-equivalent to domestic sectors, domestic input-output tables and Leontief inverses are used to estimate the total domestic gross output required across the production network. Historical sector capital/output ratios for the US, Eurozone and UK are then applied to estimate the additional capital stock and associated GFCF required over 2026-2050. Other sources include OECD STAN Database for Structural Analysis, 2025 edition, UK ONS and US BEA.

Like in all economic transitions, decoupling from China would likely involve a gradual investment – starting with US\$126 billion for the US (~2% of US investment), US\$79 billion for the Eurozone and US\$7 billion for the UK – with a ramp up over time. This means the investment required might be manageable initially, also allowing for the prioritization of particularly exposed sectors, value chains and nodes. However, achieving full decoupling would require the investment requirement to rise sharply, reaching US\$1.8 trillion by 2050.

On average, this investment would be roughly equivalent to delivering a programme the size of the Inflation Reduction Act every year for 25 years and slightly above the estimated US\$800 billion in 2026 capital expenditure on the US AI build-out.⁷

To replicate these supply chains, businesses and governments would need to recreate both tangible and intangible capabilities, including machinery, transport equipment, construction, R&D, software, supplier ecosystems and, crucially, workforce training. In many areas, localizing IP, data, technical know-how or specialist skills may be more complex than localizing physical production.

For example, as the US seeks to build semiconductor manufacturing capacity, approximately 58% of required jobs (mostly in technical roles) are at risk of being unfulfilled by 2030.⁸

The operating cost challenge

The cost challenge does not end with capital expenditure. EY-Parthenon teams estimate that Western businesses' factory prices in selected components are typically 20-100% higher compared to their Chinese competitors. This is driven by differences in scale, processing intensity, supplier density, labor costs, oversight requirements, asset utilization and, crucially, various forms of subsidies.

Due to these sorts of cost deltas, a European Central Bank working paper estimates that China decoupling in strategic sectors could leave economy-wide prices structurally higher by an estimated 1 to 2 percentage points over the long run.⁹

Who pays?

The first question to ask when assessing macro uncertainty is who pays for any such cost premiums?

- If governments shouldered the annual capex requirement through debt-financed investment, EY-Parthenon teams estimate it would add an average of close to 1 percentage point of GDP to annual government deficits in the US, Eurozone and UK through 2050, in an already fiscally challenging environment.
- If businesses absorb the investment requirement themselves, their capital expenditure could increase significantly – rising to as much as double current annual capex levels for S&P 500 companies in sectors including machinery, automotive, computers and electronics.

Businesses are unlikely to absorb both higher investment requirements and increased operating costs through margin compression alone. As a result, some of the cost would likely be passed on to consumers through higher prices. Whether or not they'd be willing to pay them, however, remains to be seen.

The likely outcome: partial and uneven decoupling

The purpose of this analysis is not to prescribe the "right" level of decoupling or to judge different policy choices. There are reasonable arguments for varying degrees of China de-risking of supply chains. The point is that localizing involves material trade-offs, which need to be anticipated and quantified before businesses make long-term decisions on footprint, sourcing, IP ownership, investment and market access.

Given these competing pressures, a more likely outcome is partial and uneven decoupling, where the balance between local and global varies by sector, product, market and value chain node.

This creates a more difficult challenge than either full globalization or full localization: deciding where resilience is worth paying for, where global scale should be preserved and where optionality is the most valuable strategic asset. These trade-offs should inform a range of business decisions on headquarters, IP ownership, production cycles, supplier partnerships and capital investment. The challenge is that such decisions often must be made with a 10-15 year horizon, with significant uncertainty over the future direction of trade, industrial policy and market access.

7. Bank for International Settlements, Annual Economic Report 2026

8. Semiconductor Industry Association and Oxford Economics, 'Chipping away: assessing and addressing the labor market gap facing the US semiconductor industry,' July 2023

9. Attinasi, Maria-Grazia, Boeckelmann, Lukas, Meunier, Baptiste, 'The Economic Costs of Supply Chain Decoupling', ECB Working Paper No. 2023/2839, 7 August 2023

How businesses should respond: balancing cost, service and resilience

In practice, this means footprint strategy can no longer be treated as a periodic network optimization exercise. It needs to become a dynamic capability for balancing cost, service and resilience as the external environment changes.

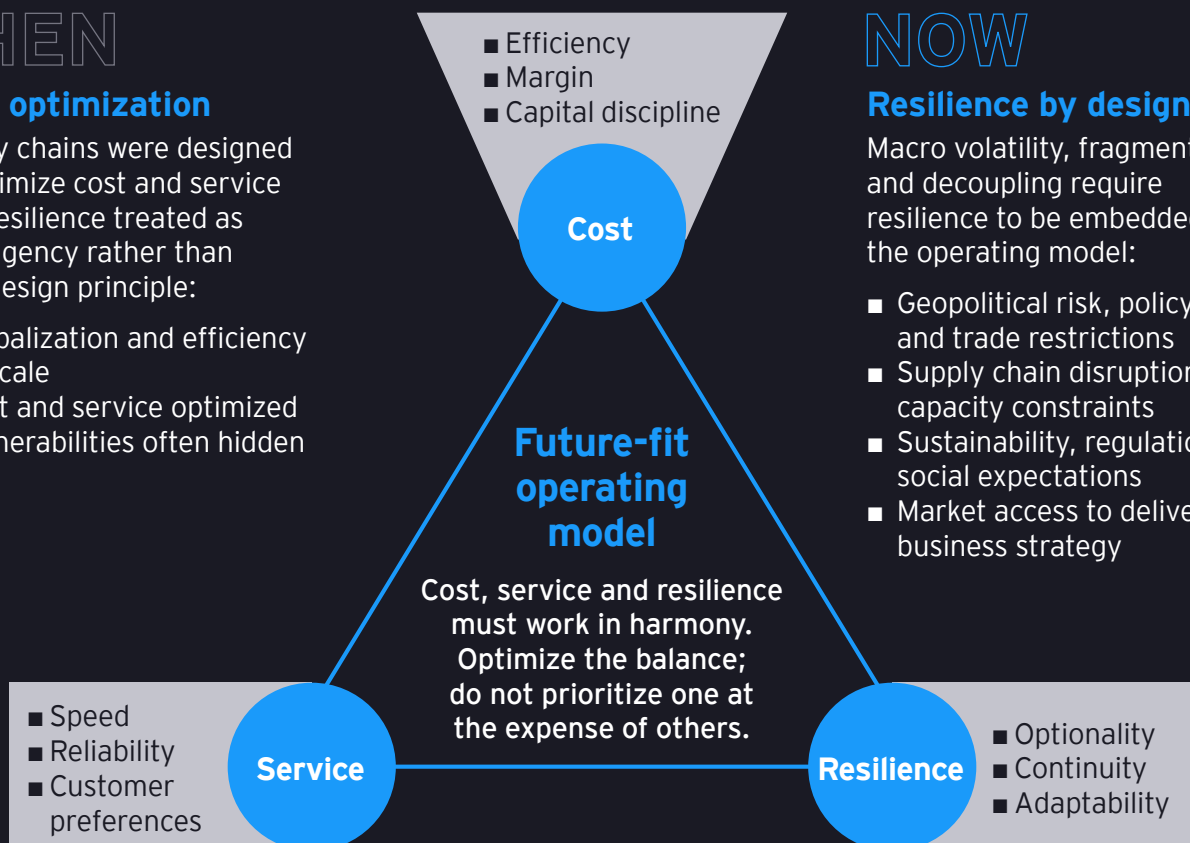
The objective is not to optimize for cost, service or resilience in isolation, but to design an operating model where all three work together. In the past, supply chains were often designed to optimize cost and service, with resilience treated as contingency rather than a core design principle. In the current environment, resilience needs to be embedded into the operating model from the outset – but always weighed against the other drivers to avoid unnecessary cost.

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Lean optimization

Supply chains were designed to optimize cost and service with resilience treated as contingency rather than core design principle:

- Globalization and efficiency at scale
- Cost and service optimized
- Vulnerabilities often hidden



NOW

Resilience by design

Macro volatility, fragmentation and decoupling require resilience to be embedded into the operating model:

- Geopolitical risk, policy shifts and trade restrictions
- Supply chain disruption and capacity constraints
- Sustainability, regulation and social expectations
- Market access to deliver business strategy

Striking the right balance is key to success

Companies that embed macro risk into strategy and operating models, while looking beyond their own wider value chain and sector, will be best placed to outperform in the markets of the future.

How to get the right footprint balance

External triggers

- Not rightsized for consumer and demographic shifts in demand or source of materials
- Exposure to macro-economic changes (inflation, rising cost of capital)
- Not designed to manage risk or opportunities from geopolitics (risk of stranded assets, emergence of trade and tech zones or decoupling, component bans, knock-on effects on energy)
- Poorly aligned to existing and future policy developments (targets and regulations; taxes and subsidies; international trade tariffs)
- Poorly aligned to sustainability developments (consumer and regulatory moves for or against)
- Competitive or regulatory exposure to economics and politics around emerging technology

Understanding the triggers, their relative impact and response options is essential to determine a manufacturing footprint that balances cost, service and resilience

Internal triggers

- Supply network not designed for current and future requirements, but rather a result of demand and supply heritage
- Unrealized internal synergy potential due to siloed business unit operations or limited integration post-acquisition
- Some operations “trapped” in higher cost locations than may be necessary due to historical co-location (e.g., manufacturing with R&D)
- Not optimized for end to end fully delivered cost due to siloed responsibility of costs between materials, conversion, logistics and taxes
- Duplication of fixed cost overheads in the case of multiple sites with similar operations
- Subscale operations (especially those in higher cost locations) which are not investible for automation and not justified by scale of local demand

1. Quantify both internal and external triggers

Businesses should assess external triggers, such as tariffs, demand shifts, energy costs, logistics disruption and data restrictions, alongside internal triggers such as duplicated fixed costs, aging assets or legacy footprints. The right answer will vary by sector: Semiconductors, defense and quantum may justify greater domestic capability at a cost premium, while consumer goods may retain more flexibility to balance cost and service through global networks.

2. Rethink demand and platform choices

Footprint strategy should start with future demand: where customers will be, what they will need and how the product offering may change. Product simplification and platform harmonization can improve asset utilization, reduce supplier complexity and offset some of the cost of resilience. Standardization has often created advantage, from a global quick-service restaurant chain's limited menu supporting speed of service to a leading electric vehicle manufacturer's standardized vehicle offerings supporting availability during supply-chain disruption. Postponement strategies for late personalization take this a step further, allowing customers to have personalized products

without the cost and complexity of big product ranges. Examples include a global coffeehouse chain's 80,000+ drink combinations determined at the point of ordering, or a leading consumer technology company's flagship smartphones which allow customers to create their own unique UI/UX through proprietary app marketplace and user customization.

3. Plan through alternative futures

Businesses should define options against a range of outcomes rather than a single forecast. Scenarios should test policy, tariff, energy, market-access, technology and logistics risks, including ‘behind the border’ factors such as software, component or data restrictions that can stall or disrupt supply chains, making them more destabilizing as well as higher cost.

4. Plan the change

Footprint changes carry operational, financial and organizational implications. Businesses need to plan for workforce recruitment and retention, parallel running or stockpiling during transitions, procurement and operating model changes, tax implications, and asset decisions – including whether to fix, transfer, repurpose or sell facilities.

Conclusion

The coming decade will test businesses' ability to manage the cost, service and resilience triangle amid sustained inflationary, geopolitical and policy pressure. Global scale and cross-border flows will remain essential to competitiveness in many sectors, but businesses will also need greater resilience and sovereign capability in selected value chains.

As the China-linked supply chain analysis shows, full decoupling would require substantial capital investment, higher production costs and a likely inflationary impact. This makes wholesale localization unlikely across most sectors. But it does not mean businesses can assume a return to the previous model. A more likely outcome is partial and uneven decoupling, where the balance between local and global varies by sector, product, market and value chain node.

Getting this trade-off right will require businesses to distinguish transient shocks from structural shifts, quantify exposure to external and internal triggers, and plan through scenarios rather than single outcomes. The winners will be those that retain the flexibility to globalize where scale matters, localize where resilience demands it, and adapt quickly when the balance shifts.

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