

# Geopolitical Risk in Global Supply Chains: The Case of Southeast Asia

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## ABSTRACT

Southeast Asia stands at the crossroads of global supply chains, offering immense strategic and economic significance to international commerce. Its location, coupled with a diverse array of manufacturing assets and deep trade integration, makes the region a magnet for global businesses seeking efficiency, flexibility, and growth. Over recent years, however, the landscape has become increasingly complicated due to heightened geopolitical risks. The region is a stage for great power rivalry, particularly between the United States and China, which has led to export controls, investment scrutiny, and pressures towards supply chain decoupling. Furthermore, Southeast Asia contends with territorial disputes, especially in the South China Sea, domestic political instability, and regulatory fragmentation, all of which introduce new layers of uncertainty for supply chain continuity. Compounding traditional risks are emerging challenges such as cyber threats, climate disruptions, and resource competition, which cut across national and regional boundaries. The ability to navigate these complexities is critical for both businesses and policymakers. This paper integrates recent academic insights to assess the multifaceted nature of geopolitical risk in Southeast Asia and its operational implications for global supply chains. It identifies vulnerabilities and recommends strategic responses, emphasising the need for diversification, adaptability, and resilience. Ultimately, building robust supply chain frameworks will be vital for thriving in an unpredictable geopolitical environment.

**Keywords:** Geopolitical Risk, Supply Chain Resilience, Southeast Asia, Global Value Chains, Strategic Decoupling, Maritime Security, Political Instability, Risk Mitigation, Regionalisation, Cybersecurity, Climate Disruption

## Introduction

Global supply chains have been developed for many years based on cost efficiency, speed, and lean operations. Recent years, however, have laid bare the vulnerability of these services to geopolitical instability. Trade wars, territorial disputes, cyber threats, climate change, and induced instability are the new realities that are redefining the global commercial landscape, driven less by economic logic and more by political forces. While coping with them, supply chain resilience has been identified as one of the strategic priorities to address risk management deficiencies (Tang, 2006; Choi & Rogers, 2020).

Southeast Asia is uniquely positioned in this changing world. The continent has more than 680 million people, a burgeoning middle class, and a range of economies that have proven crucial to global manufacturing and logistics.

Vietnam, Indonesia, Malaysia, and Thailand have emerged as competing destinations for manufacturing labour-intensive and export-oriented goods, alongside China. Meanwhile, the region's sea lanes, notably the South China Sea, are some of the world's most important arteries of global commerce, carrying more than one-third of the world's shipping traffic (Gereffi, 2020; Luo, 2021).

Southeast Asia is as strategically important as it is geopolitically complex. The area is a centre of great power competition, particularly between the United States and China, whose rivalry has prompted export controls, investment screening, and calls for decoupling the supply chain. In the meantime, intra-regional disputes such as territorial claims, political instability, and nonuniform regulatory environments also represent supply chain continuity risks. These trends are further compounded by newer challenges, cyber intrusions,

climate disruptions, and competition over resources. These increasingly cut across geopolitical divides (Bednarski et al., 2025; Ivanov, 2020).

Supply chain risk and resilience, although attracting increasing research interest, has only recently started to incorporate geopolitics as a systematic core analytical lens in scholarly work. Where traditional risk management models focus on operational downtime, there is a lack of understanding of how political risk influences strategic sourcing, logistics, and regionalisation decisions. Southeast Asia is a powerful lens through which to explore this question, as the region is at the heart of the worldwide value chain and under the influence of various geopolitical forces. This article draws on insights from existing studies to investigate the character and implications of geopolitical risk on supply chains in the Southeast Asian region. It identifies the most critical risk categories such as naval warfare, strategic decoupling, domestic disorder, cyber vulnerabilities, and climate stressors, as well as discusses their operational significance. The latest academic research suggests strategic responses for businesses and policy recommendations for Association of Southeast Asian Nations (ASEAN) governments. The aim is to develop a more sophisticated and nuanced understanding of geopolitical risk and to provide practical options for constructing more resilient and adaptive supply chains in an increasingly volatile world.

## **Southeast Asia's Strategic Role in Global Supply Chains**

Southeast Asia is at the centre of the global supply chain architecture owing to a combination of economic liberalisation, demographic dividend, and strategic location. The area encompasses 10 ASEAN countries, each with distinct advantages in manufacturing, logistics, and resource support. Together, ASEAN comprises the fifth-largest economy in the world, boasting a total GDP of over USD3.6 trillion and a population of over 680 million people (Gereffi, 2020; Luo, 2021). Its inclusion in global value chains (GVCs) has gained further momentum in the past two decades, especially in electronics, automotive, clothing, and agribusiness.

One of the biggest accelerants to Southeast Asia's supply chain relevance is the strategic pivot among

multinationals to reduce dependence on China. The 'China+1' strategy, referring to the establishment of alternative production bases in countries such as Vietnam, Indonesia, and Malaysia (Andrienko et al., 2025; Lee & Rammohan, 2022), has seen its significance increase due to wage inflation, regulatory risks, and geopolitical conflict in China. In Vietnam, for instance, electronics and apparel manufacturing have also become a major hub, attracting investment from companies such as Apple Inc, Samsung, and Intel Corp. The rapidly expanding manufacturing sector in Indonesia, combined with its vast domestic consumer market, makes it an even more desirable destination for supply chain diversification. This is consistent with the general literature on supply chain concentration and risk. Zhu et al. (2025) also show that firms with geographically diversified sourcing portfolios are better able to withstand geopolitical shocks and maintain continuity of operations.

Southeast Asia's position as a diversification destination is therefore not just tactical, but increasingly strategic. Strategically, Southeast Asia straddles the world's most vital maritime chokepoints. The South China Sea connects several Southeast Asian countries to the world economy, accounting for 35% of all global shipping traffic, and is critical to the transit of energy, raw materials, and finished goods (Bednarski et al., 2025). The Strait of Malacca, which links the Indian and Pacific oceans, is a crucial artery for global trade, especially for oil and gas shipments. Dominance and opening of these shipping lanes provide vital geopolitical clout. However, they also pose strategic vulnerabilities for the region, as these provoke territorial disputes and naval militarisation. Research on maritime security and supply chain vulnerability emphasises the necessity of route redundancy and strategic pre-consideration to mitigate risks associated with the closure of chokepoints (Tang, 2006; Christopher & Peck, 2004).

Southeast Asia's institutional terrain adds to its appeal as a supply chain destination. The area is part of various major trade agreements, such as:

- The Regional Comprehensive Economic Partnership (RCEP), which is the world's largest trade bloc, comprising ASEAN, China, Japan, South Korea, Australia, and New Zealand.
- The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), which is a high-standard trade agreement that features countries such as Vietnam, Malaysia and Singapore.

- The bilateral free trade agreements (FTAs), among ASEAN members and major partners such as the European Union (EU), India, and the US. These arrangements lower tariff barriers, standardise competition norms, and promote cross-border investment, thereby reducing transaction costs and improving the smooth flow of supply chains (Ketokivi & Mahoney, 2020).

What is more, ASEAN’s dedication to economic integration with such measures as the ASEAN Single Window and the Master Plan on ASEAN Connectivity indicates that the region has a long-term horizon in terms of regional supply chain improvement.

The demographic profile of the region is another strategic asset. Southeast Asia offers a competitive alternative to ageing East Asia and Europe, boasting a young and increasingly skilled labour force. With significant investments in vocational education and digital infrastructure, countries such as the Philippines and Vietnam are notable examples (Ivanov, 2020).

Digitalisation is also changing the dynamics of supply chains in the region. The increasing prevalence of e-commerce, intelligent logistics, and digital trade platforms is empowering new models of supply chains that are more agile and responsive. However, divergences in terms of digital maturity in the ASEAN membership imply both opportunities and threats, even more so if we consider the contrast in cybersecurity or data governance (Choi & Rogers, 2020).

## Geopolitical Risk Map

### South China Sea Disputes

Territorial disputes between China, Vietnam, the Philippines, and others threaten freedom of navigation and could lead to military confrontation. Blockades in the passageway could plague sea logistics and raise insurance premiums (Bednarski et al., 2025). Trade wars, export controls, and investment screening have also led firms to adopt ‘China+1’ strategies. Southeast Asia is a major winner, although potentially also a theatre for geopolitics (Zhu et al., 2025; Luo, 2021). Internal political instability, coups in Myanmar, and protests in Thailand have disrupted supply chain transit and regulatory environments. Investor confidence and

operational predictability are negatively affected by political instability (Ghoshal & Bartlett, 1990).

### Cybersecurity and Technology Risks

Digital supply chains are subject to cyber risks. Because infrastructure coverage is limited in some areas of Southeast and East Asia, enterprises are vulnerable to security breaches and operational interruptions (Choi & Rogers, 2020).

### Climate and Resource Wars

Climate-driven disruptions, including floods and long droughts, are just beginning to play their part as sources of geopolitical instability. These hazards contribute to the fragility of the supply chain, particularly in the agriculture and energy industries (Ivanov, 2020).

**Table 1: Operational Impacts**

Risk Type	Impact on Supply Chains
Maritime conflict	Port closures, rerouting, insurance cost hikes
Trade restrictions	Tariffs, export bans, compliance complexity
Political instability	Labour shortages, regulatory unpredictability
Cyber threats	Data breaches, system downtime
Climate/resource conflict	Input scarcity, price volatility

These disruptions are testing lean and just-in-time models, fostering a move towards resilience and redundancy (Tang, 2006; Ketokivi & Mahoney, 2020).

### Strategic Responses to Geopolitical Risk

A strategic reorientation away from efficiency-centric models and towards resilience, adaptability, and foresight is under way, coinciding with the growing susceptibility of global supply chains to geopolitical disruptions. In Southeast Asia, which is marked by its own unique geopolitical tensions, firms must employ their techniques to design statistical risk reserves that work in parallel to achieve a comprehensive capacity across the region. This is a group of methods, each of which is beyond the scope of what can be compiled here in relation to any single procedure of international

safety management. This section, drawing on recent scholarship from FT50 journals, outlines four main strategic responses: diversification and regionalisation, geopolitical risk mapping, strategic alliances, and resilience frameworks.

### **Geopolitical Risk Mitigation in Strategic Diversification and Operation**

One way is to disperse sourcing from production bases and warehouses across a range of locations. The ‘China+1’ model represents such an effort, as firms relocate or enlarge operations in Vietnam, Indonesia, and Malaysia to cover any potential US–China confrontation that might arise from local instability in China. Using this approach, companies can relocate entire geographic risk frameworks to mitigate over-reliance on China. Pressure must nevertheless not be dissipated too much when diversifying. New modes of supply chain management are better able to meet regional needs. Researchers argue that Southeast Asia’s trade integration via the RCEP and CPTPP can better co-operate with regional economic development strategies. One can also say that blockchain technology has quickened the pace of globalisation. New concepts, such as supply chain control towers and artificial intelligence (AI) network optimisation, which have been rapidly developed since 11 September, 2001, are an aspect of this trend that can be applied to other industries.

### **Geopolitical Risk Mapping and Scenario Planning**

However, geopolitical risk necessitates a more forward-looking and multifaceted approach, complementing reactive measures (Floyd, 2013). Businesses are increasingly using geopolitical risk dashboards to consider policy shifts, military activity, and political stability alongside data relating to trade (Bednarski et al., 2025). Advanced scenario planning, based on strategic foresight and systems thinking, enables companies to analyse potential geopolitical events. Scenarios can be created to imagine or project the actions they would take under different circumstances. For example, if the shipping lines of the South China Sea were closed or export controls imposed on semiconductors, companies could simulate these events and measure their effects

on lead times, inventory levels, and customer service performance downstream (Tang, 2006). In literature, scholars emphasise modular supply chain design as an essential feature. Enterprises can replace and rearrange affected parts without disturbing the whole system (Christopher & Peck, 2004). Especially fitting in Southeast Asia, this approach requires flexible and adaptive architecture, as political volatility and regulatory fragmentation necessitate it.

### **Strategic Alliances and Institutional Embeddedness**

To navigate the complexities of modern politics smoothly, we not only require operational flexibility but also social embeddedness (Ghoshal & Bartlett, 1990). Enterprises that build strong links with local governments, trade associations, and logistics providers are better placed to predict changes in policy regulations, get ahead of the game with inside information, or even influence the way that official policy turns out. Strategic alliances also provide a way to collectively spread or neutralise risks. For example, multinational corporations operating in Southeast Asia can collaborate on local labour practices, cybersecurity standards, or environmental protection. This spreads reputational and regulatory risk up and down the production chain (Choi & Rogers, 2020). Furthermore, embedding oneself in this way builds social legitimacy, which is particularly important in sensitive, politically charged areas (Manuj & Mentzer, 2008). Firms that engage in community projects, offer workers training, or talk loudly about sustainability are more likely – and indeed are being increasingly recognized – as friends of the people on whom less political backlash might follow.

### **Resilience Frameworks and Organisational Capabilities**

Resilience is not just a property of structures; it also functions as an attribute for an entire organisation. Firms need to become resistant; they must be able to absorb shocks, adapt their behaviour in real-time response, and quickly recover from mistakes. Researchers suggest that a multidimensional framework for resilience might include:

- *Redundancy*: Keeping buffer stocks, second source of suppliers, and alternative transport routes.

- *Flexibility*: Designing products, systems, and tools that can be quickly reconfigured.
- *Visibility*: Using digital twins, internet of things (IoT), and blockchain, among others, to monitor your business in real time.
- *Collaboration*: Sharing data among different parts of your supply chain.

Lee and Rammohan (2022) argue that resilience will only be successful when it is incorporated into strategic planning and not just confined to contingency operational activities. This requires extensive co-operation between functions, heavy investment in digital infrastructure, and a culture of continuous learning to drive the process. In Southeast Asia, resilience needs to be adapted to local conditions as geopolitical risk interacts with climate vulnerability and digital asymmetries continue. For example, companies located in low-lying areas subject to flooding may invest in raised warehouses or use long-term forecast weather information as a secondary data stream, while those situated within politically weakened regions might prioritise rules for supplier onboarding and exit strategies.

### Policy Implications for ASEAN

- Maritime security systems and dispute resolution mechanisms can also be greatly strengthened by government intervention.
- Improve digital infrastructure and standards of cybersecurity to prevent cybercrimes more effectively. Economies will now become increasingly reliant on the digital economy, not only on industrial production.
- Governments in these regions must therefore take proactive steps if they are going to succeed in protecting their citizens from harm caused by malware or hackers using computer viruses.
- Invest in green logistics and climate adaptation.
- Regulatory harmonisation across ASEAN is a related issue. ASEAN should respond with a unified voice so that it may still be seen as both attractive and stable (Gereffi, 2020).

### Conclusion

With the changing global environment, the traditional approach to managing global supply chains is no longer applicable. Nowhere is this clearer than in Southeast Asia, a region that embodies opportunity and volatility. By virtue of its strategic situation, its manufacturing capacity, and its place in global trade, it is the linchpin of the GVC. However, it is also subject to maritime disputes, frictions between great powers, an unsettled domestic political landscape, and emerging threats such as cyberattacks and climate change, all of which give rise to a complex risk environment that firms can no longer afford to overlook. This article argues that geopolitical risk must be moved from a reactive operational concern to the heart of supply chain design and governance. Based on the study of the literature cited, we have concluded that firms must adopt a multipronged approach: diversifying their sourcing and production bases, regionalising their operations, integrating geopolitical foresight with scenario planning, and cultivating institutional traffic. Such strategies are not mere defences; they are the foundations of supply chains capable of withstanding shocks, adapting to changing circumstances, and prospering in an environment of uncertainty.

In addition, the roles of governments and regional institutions are important. How well ASEAN can harmonise its regulations, how far it can invest in both physical and digital infrastructure, and how united it remains during confrontations with the outside world will determine whether Southeast Asia remains a reliable and attractive hub for the supply chain. Public-private partnerships, Environmental, Social, and Governance (ESG)-aligned priorities, and regional development should be emphasised to create longer-term stability and competitiveness. As geopolitical disruptions become more frequent and complex, the requirement for supply chain resilience will only grow more intense. Southeast Asia represents both a challenge and a model area: a region where interests are high, but where strategic foresight, institutional nimbleness, and constructive governance can transform potential risks into actual strengths. Future research should continue to explore the geopolitical impacts on supply chain strategy, particularly through

longitudinal studies and cross-sector comparisons that broaden perspectives beyond a specific region or industry.

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