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The New Geopolitics of Trade and Tech: Supply Chains, Strategic Competition, and Policy Responses

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Introduction

This book examines how trade policy, technology decoupling, and economic statecraft are reshaping both global politics and domestic policy. Over the past decade, interdependence has ceased to be merely a source of efficiency and has become a strategic variable in its own right. States now treat supply chains, standards, and market access as instruments of power, while firms recalibrate strategies in response to geopolitical risk as much as to price signals. The central claim of this book is that we have entered a new geopolitics of trade and tech—one in which economic tools are wielded to pursue security objectives, and in which the choices made by governments, allies, and companies can either entrench fragmentation or enable competitive coexistence.

Semiconductor supply chains offer the clearest window into this transformation. Chips are the foundational inputs for artificial intelligence, telecommunications, clean energy systems, and defense platforms. Yet the semiconductor ecosystem is not a flat global marketplace; it is a layered architecture of geographic concentration and technological chokepoints—from advanced lithography and specialty chemicals to electronic design automation and leading-edge fabrication. These structural features create leverage and vulnerability at the same time: a disruption in a single node can cascade across industries and borders. Understanding how these chokepoints interact with policy choices is essential for building resilience without imposing unnecessary costs.

Export controls, sanctions, and investment screening have thus moved from the margins to the core of national strategy. Properly designed and coordinated, they can slow adversarial capabilities, harden security, and buy time for domestic capacity-building. Poorly targeted or unilaterally enforced, they can spur circumvention, accelerate unwelcome innovation elsewhere, and fracture alliances. The questions policymakers must answer are practical as well as principled: What are the objectives? How proportionate and enforceable are the measures? What are the spillovers for supply chains, research collaboration, and macroeconomic stability? This book dissects the design logic of these tools and evaluates their direct and second-order effects.

In parallel, industrial policy has returned to the mainstream. Governments are mobilizing subsidies, tax credits, public-private partnerships, and procurement to secure critical capabilities—from chips and batteries to clean-tech manufacturing and advanced packaging. These efforts are not only about factories; they hinge on standards, data governance, workforce development, and state capacity. They are also inherently political, redistributing resources across regions and constituencies. We analyze the competing models at work in the United States, China, Europe, and key

Asian economies, assessing what actually builds durable ecosystems versus what risks rent-seeking and duplication.

Alliances and alignments are the third pillar of the new landscape. The locus of rule-making has shifted from universal institutions toward issue-based “minilateralism”: flexible coalitions that coordinate export controls, share early-warning information on supply disruptions, and set interoperable standards for data, AI, and 5G/6G. Concepts like “friendshoring” and “de-risking” signal an attempt to diversify without full decoupling, yet they raise hard questions for partners in the Global South seeking both investment and strategic autonomy. We examine how cooperative frameworks can be designed to include, rather than exclude, pivotal emerging economies—and how transparency, capacity-building, and fair access to technology can turn alignment into a positive-sum proposition.

Methodologically, the book blends structural mapping with policy analysis. We introduce a typology of dependence—input, technology, market, and logistics—and pair it with metrics for concentration, substitutability, and time-to-recover. Case studies trace how shocks propagate through semiconductor, critical minerals, and clean-tech supply chains. Scenario exercises explore escalation pathways and off-ramps: how specific export control packages, industrial incentives, or alliance commitments might play out over multiple years. The goal is to equip readers with a toolkit they can apply beyond the examples in these chapters.

The audience for this book spans policymakers, business leaders, investors, and researchers. For officials, it offers design principles for targeted controls, smarter subsidies, and alliance coordination. For firms, it provides guidance on compliance, supply-chain diversification, and strategic positioning under multiple regulatory regimes. For scholars and students, it offers a framework for understanding how markets, technology, and security interlock. Throughout, the emphasis is on practical recommendations—how to build resilience and diversify where it matters most, while preserving openness where it is safe and beneficial.

Ultimately, competitive coexistence is possible—but only with intention. The book argues for a strategy of cooperative competition: invest in domestic capacity, diversify critical nodes, and align with partners on shared risk assessments and standards, while maintaining guardrails to prevent miscalculation and runaway escalation. That implies regularized dialogue among major powers and allies, transparency on the scope and aims of economic measures, crisis-management channels for supply disruptions, and support for inclusive development so that fragmentation does not become destiny. The chapters that follow lay out the architecture of this approach and a roadmap for translating it into policy.

CHAPTER ONE: Mapping the New Geo-Economic Terrain

The world of trade and technology has undergone a seismic shift, moving from an era of relatively unhindered globalization to one where geopolitical considerations are paramount. For decades, the prevailing wisdom held that economic interdependence would inherently foster peace and cooperation. Supply chains were optimized for efficiency, stretching across continents with little regard for political boundaries, driven by the relentless pursuit of lower costs and greater specialization. Technology flowed freely, diffusing innovation and seemingly leveling the global playing field. This vision, however, has increasingly bumped up against the hard realities of national security, strategic competition, and the growing recognition that economic power can be—and is being—weaponized.

No longer is the global economy a purely mercantile arena where nations vie solely for market share and competitive advantage. It has morphed into a geo-economic battlefield, where access to critical technologies, control over strategic supply chains, and the ability to dictate economic terms are central to national power. The lines between economic policy and national security strategy have blurred to the point of near invisibility. Decisions once confined to finance ministries and trade departments are now regularly debated in defense councils and national security committees. This fundamental reorientation requires a new map, one that charts not just the flows of goods and capital, but also the fault lines of strategic competition and the chokepoints of technological leverage.

One of the most striking features of this new terrain is the rise of what can be termed "strategic industries." These are sectors deemed so critical to national security or economic resilience that governments are willing to intervene aggressively to secure domestic control or assured access. Semiconductors, as the foundational technology for nearly all modern systems, sit atop this list. But the scope extends to critical minerals essential for renewable energy and advanced manufacturing, advanced computing, artificial intelligence, biotechnology, and even certain aspects of quantum technology. The recognition is that whoever controls the commanding heights of these industries will possess significant leverage in the 21st century.

This strategic competition is playing out across multiple dimensions. It's a race for technological supremacy, where nations are investing heavily in research and development, seeking to cultivate domestic champions, and often attempting to restrict rivals' access to cutting-edge tools and know-how. It's also a battle for control over supply chain nodes, identifying vulnerabilities and then actively seeking to

onshore, nearshore, or "friendshore" production to more trusted partners. This isn't just about economic efficiency anymore; it's about reducing dependence on potential adversaries and building resilience against disruptions, whether natural or man-made.

The instruments of this geo-economic competition are diverse and increasingly sophisticated. Export controls, once primarily focused on military applications, are now being deployed with a much broader scope, targeting dual-use technologies that have both civilian and military potential. Investment screening mechanisms are scrutinizing foreign capital inflows not just for market dominance, but for potential national security risks, particularly in critical infrastructure and technology sectors. Subsidies and industrial policies, long seen as relics of a protectionist past, have made a robust comeback, as governments seek to stimulate domestic production and innovation in strategic sectors. These tools, collectively, represent a powerful arsenal of economic statecraft.

The shift is also evident in the changing nature of international cooperation. While multilateral institutions like the World Trade Organization (WTO) still exist, their efficacy in addressing these new geo-economic challenges is often limited by consensus requirements and differing national interests. Instead, there's been a proliferation of more agile, issue-specific groupings, often referred to as "minilateral" arrangements. These smaller coalitions of like-minded nations are forming to coordinate policies on everything from export controls on advanced chips to the development of common standards for emerging technologies. This indicates a recognition that traditional multilateralism, while still important for broad trade liberalization, is often too slow and unwieldy for the rapid pace of geo-economic competition.

Furthermore, the very concept of "globalization" is being re-evaluated. While a complete reversal is unlikely, the prevailing ethos of unfettered interconnectedness is being replaced by a more nuanced approach. The idea of "de-risking" has gained significant traction, representing an effort to reduce critical dependencies without resorting to full-scale "decoupling." This involves strategically diversifying supply chains, cultivating redundant capacities, and developing alternative sources for key components and technologies. It's a pragmatic recognition that while complete self-sufficiency is often economically unfeasible and inefficient, blind reliance on potentially unreliable partners is strategically imprudent.

The implications for businesses are profound. Companies can no longer operate solely on the basis of economic rationality, optimizing for cost and efficiency without considering geopolitical factors. Geopolitical risk assessments are now an integral part of strategic planning, influencing everything from investment decisions and supply chain architecture to market entry and exit strategies. Compliance with a growing web of export controls, sanctions, and investment regulations has become a complex and costly endeavor. Navigating this new terrain requires a sophisticated understanding of

both market dynamics and the evolving landscape of geo-economic competition.

Understanding the motivations behind these shifts is crucial. For many nations, the drive for greater control over strategic industries and technologies stems from a renewed focus on national resilience and sovereignty. The COVID-19 pandemic starkly exposed the vulnerabilities inherent in globally dispersed supply chains, leading to shortages of essential goods and highlighting the fragility of just-in-time production models. Simultaneously, the accelerating pace of technological change and its profound implications for military power and economic competitiveness have intensified the strategic imperative to lead in key sectors. The confluence of these factors has created a powerful impetus for governments to actively reshape global economic flows.

This new geo-economic terrain is not static; it is constantly evolving, shaped by technological breakthroughs, political decisions, and unforeseen events. The competition over semiconductors, for instance, is not just about who can manufacture the most advanced chips, but also who controls the specialized machinery, the critical materials, and the intellectual property required for their production. Each layer of the supply chain presents potential chokepoints and opportunities for leverage. Mapping these intricate interdependencies is therefore essential to understanding where power truly lies and how it can be wielded.

The consequences of this remapping are far-reaching, influencing everything from the price of consumer goods to the stability of international relations. As nations increasingly view economic tools through a security lens, the potential for economic friction to escalate into broader geopolitical tensions grows. Managing this transition requires a delicate balance: securing national interests without unduly fragmenting the global economy, fostering innovation without stifling cooperation, and building resilience without retreating into protectionism. This chapter, therefore, serves as the initial guide to this complex and rapidly changing landscape, setting the stage for a deeper dive into its various facets in the chapters that follow.

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