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In Praise of Inefficiency: Rethinking Global Strategy in a Multipolar World Order

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This article argues that the shift from a relatively stable unipolar system to a fragmented multipolar world undermines efficiency-driven global strategies of multinational enterprises (MNEs). Highly optimized value chains, while cost-effective, are increasingly fragile under systemic geopolitical disruptions. The paper reframes inefficiency, such as redundancy, geographic dispersion, and operational flexibility, as a strategic asset for resilience. Building on real options logic, it proposes the “Three Dimensions of Strategic Inefficiency for Resilience” as a framework for enhancing adaptability. The study concludes that in volatile environments, resilience is achieved not despite inefficiency, but through its deliberate design.

INTRODUCTION

For decades, MNEs operated under an assumption of stability, designing optimized value chains focused on efficiency and cost minimization. Global strategy research understandably prioritized eliminating redundancy, treating slack as waste (Womack, Jones, & Roos, 1990). However, systemic shocks, notably the global financial crisis and the COVID-19 pandemic from 2020 to 2023, exposed the fragility of these hyper-efficient, tightly coupled systems. This foundation is now eroding as the global order shifts from a stable unipolar system to a fragmented, contested multipolar world. In this context, geopolitical tensions are frequent, unpredictable, and interconnected (Ciravegna, Hartwell, Jandhyala, Tingbani, & Newburry, 2023). Disruptions now cascade across global networks, challenging even the most optimized configurations.

This shift exposes the efficiency paradigm’s limitation: strategies minimizing slack, while effective under stability, become fragile under systemic disruption. Highly optimized value chains lack the buffers needed to absorb shocks. This tension parallels natural sciences, where resilient systems prioritize diversity and redundancy over maximal efficiency. As Lietaer et al. (2010) observe, systems optimized solely for efficiency are prone to brittleness, validating the logic of intentionally designed strategic slack. The COVID-19 pandemic demonstrated this fragility, exposing the limits of lean, highly concentrated configurations where former competitive advantages now amplify vulnerability. Consequently, MNEs must rethink inefficiency; elements traditionally viewed as waste (e.g., redundancy, du-

plication, and dispersion), can serve as essential resilience mechanisms. Rather than eliminating inefficiencies, firms should intentionally design them to create the flexibility and adaptive capacity required for a multipolar world.

We develop a resilience-based perspective in which inefficiency is reframed as a strategic asset. Drawing on real options theory (Kogut & Kulatilaka, 1994) and geopolitical risk literature, we show how multi-location exposure, overlapping capabilities, and decentralized structures enhance responsiveness under uncertainty (Cui, Vertinsky, Wang, & Zhou, 2023). In this view, resilience is achieved not despite inefficiency, but through it. Real options logic suggests that investments under uncertainty generate value not only through expected returns but through flexibility (Kogut & Kulatilaka, 1994). For MNEs, operating across multiple countries creates embedded options, allowing firms to shift activities in response to geopolitical and economic shocks (Cui et al., 2023). Thus, uncertainty is not only a source of risk but also a condition under which strategic flexibility gains value.

GEOPOLITICAL SHIFT: FROM STABILITY TO SYSTEMIC DISRUPTION

The shift from a unipolar to a multipolar world fundamentally alters MNE risk. Under the earlier unipolar order, disruptions were largely localized and manageable (De Villa, 2023). In contrast, today’s system is fragmented, with competing powers using sanctions, trade barriers, technological

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decoupling, and proxy conflicts, making disruptions more frequent, interconnected, and unpredictable.

These risks are amplified by deeply interdependent global value chains. Efficiency-driven optimization has created tightly coupled, specialized, and geographically dispersed systems that are highly exposed to cascading disruptions (Pedersen & Jensen, 2023). Recent events illustrate this: the Russia–Ukraine war escalated since 2022 disrupted energy, food, and inflation globally (Melin, Sosa, Velez-Calle, & Montiel, 2023); U.S.–China tensions have reshaped technology and semiconductor flows; and Middle East instability continues to affect energy and logistics. The conflict involving Iran, the United States, and Israel since February 2026 further shows how shocks propagate systemically, disrupting Persian Gulf energy infrastructure and cascading across countries and industries, from oil and gas to agriculture and semiconductor inputs (Wiseman, 2026). Geopolitical shocks are thus global and systemic, not localized.

This environment undermines traditional strategy assumptions of stability and seamless integration. The core challenge shifts from isolated risks to exposure to cascading disruptions. Highly optimized systems, designed to eliminate redundancy, lack the buffers needed to absorb shocks or adapt. As a result, resilience becomes a primary objective. From a real options perspective, rising systemic uncertainty increases the value of flexibility. The ability to shift production or reallocate resources across countries becomes more valuable as volatility grows. Thus, geopolitical instability not only weakens efficiency-based strategies but also elevates the strategic importance of flexibility embedded in multinational structures.

WHY TRADITIONAL GLOBAL STRATEGY FALLS SHORT

For decades, global strategy prioritized efficiency (e.g., minimizing costs, eliminating redundancy, and concentrating activities in optimal locations) enabled by logistics, digital coordination, and trade liberalization. This model assumes stability and treats redundancy as waste. While broader management literature recognizes that organizational slack can foster innovation and long-term adaptation (Marlin & Geiger, 2015), the dominant paradigm in global strategy has historically prioritized the minimization of such buffers to maximize short-term returns. However, a multipolar world exposes its fragility. The semiconductor industry illustrates this. ASML operated within a highly optimized global system, including China (Bown, 2020). Escalating U.S.–China tensions and export controls disrupted not just bilateral trade but the broader ecosystem: Chinese firms lost critical inputs, while others faced regulatory uncertainty. Efficiency-driven integration became a liability, forcing strategic reassessment.

More broadly, geopolitical interventions (e.g., sanctions, decoupling) now propagate systemically across tightly coupled networks (Pedersen & Jensen, 2023). Optimized supply chains lack buffers, centralized structures create single points of failure, and specialization limits adaptability. As

disruptions cascade, efficiency can amplify vulnerability, revealing a core limitation: traditional strategy favors performance in stable conditions over adaptability in volatile ones. From a real options perspective, efficiency assumes predictability and reversibility. Under uncertainty and partial irreversibility, committing to a single configuration eliminates valuable options. Maintaining alternatives, through redundancy, duplication, and multi-country operations, preserves flexibility despite higher costs. Thus, efficiency itself can generate vulnerability, requiring a shift toward deliberately embedding inefficiency as a foundation for resilience.

A RESILIENCE-BASED FRAMEWORK FOR MNE STRATEGY: THE THREE DIMENSIONS OF STRATEGIC INEFFICIENCY

The shift to a multipolar world marked by systemic, interconnected disruptions requires a fundamental reorientation of global strategy. Rather than treating resilience as secondary to efficiency, MNEs must elevate it to a primary objective. Resilience refers to a firm's capacity to absorb shocks, adapt to changing conditions, and reconfigure operations under persistent geopolitical uncertainty (Sindila, Foss, & Zhan, 2023). This view is consistent with resilience thinking in natural sciences and systems theory, where robustness depends on diversity, modularity, and buffering rather than maximal efficiency alone. Although our focus is geopolitical uncertainty in a multipolar world, the global financial crisis and the COVID-19 pandemic likewise exposed the fragility of efficiency-driven global configurations.

Consistent with systems theory and natural sciences, we argue that resilience is built not through optimization alone, but through the deliberate maintenance of strategic buffers. Although this article addresses the strategic challenges of a multipolar world, the proposed resilience framework also applies to other systemic disruptions, such as pandemics and financial crises, where efficiency-focused models are similarly vulnerable.

Achieving this requires rethinking inefficiency. Features traditionally seen as waste can instead enhance adaptability. We therefore propose the Three Dimensions of Strategic Inefficiency for Resilience, a framework systematically derived from real options logic, in which inefficiency represents an investment in “option-creating assets.” In an uncertain multipolar world, these dimensions create embedded options within the MNE's global footprint:

- **Redundancy** stores options (e.g., backup capacity or safety stock), giving the firm the right, but not the obligation, to switch to alternatives when primary resources fail.
- **Geographic Dispersion** spatially diversifies options, ensuring that shocks in one region do not paralyze the network.
- **Operational Flexibility** enables the firm to exercise these options as uncertainty unfolds.

While other dimensions of inefficiency exist, these three represent the core strategic pillars where the trade-off be-

tween cost optimization and resilience is most acute for MNEs. Together, they form the structural basis of strategic optionality, allowing managers to activate alternative pathways as geopolitical conditions shift.

THE FIRST DIMENSION: REDUNDANCY AS STRATEGIC BUFFERING

Redundancy is the deliberate duplication of critical resources, suppliers, or capabilities (Sindila et al., 2023). Far from being mere waste, this deliberate duplication serves as a shock absorber. Redundancy can be understood as a form of strategic slack, which management scholarship has long recognized may support adaptation and continuity rather than constituting mere waste. In our framework, redundancy extends this logic by functioning as a deliberate resilience mechanism under geopolitical uncertainty (Marlin & Geiger, 2015).

While efficiency-driven strategies eliminate duplication to reduce costs, in a multipolar world marked by geopolitical fragmentation and policy shocks, redundancy functions as a buffer that ensures continuity when parts of the system fail (Sindila et al., 2023).

Apple Inc.'s recent supply chain restructuring illustrates this shift. Previously, Apple concentrated production in China through partners like Foxconn, reflecting an efficiency logic of specialization and cost optimization. However, rising U.S.–China tensions, through tariffs, export controls, and political risk, exposed this concentration as a vulnerability. Apple responded by expanding production into India and Vietnam (Jie & Tilley, 2022). Although this reduced short-term efficiency and increased complexity, it created buffering capacity, enabling Apple to shift manufacturing in response to geopolitical or regulatory disruptions.

More broadly, redundancy is not only protection against operational failure but a mechanism for managing political uncertainty. Maintaining multiple suppliers or production bases, even when one suffices under stable conditions, allows firms to absorb shocks, hedge against fragmentation, and retain strategic autonomy. Within the Three Dimensions of Strategic Inefficiency for Resilience, redundancy is thus a deliberate investment in continuity and adaptability rather than waste. From a real options perspective, it creates switching options by ensuring alternative configurations are already in place. Their value lies not in immediate use, but in the ability to activate them when uncertainty materializes; without redundancy, such flexibility cannot be exercised.

THE SECOND DIMENSION: GEOGRAPHIC DISPERSION AS RISK DIVERSIFICATION

Geographic dispersion involves distributing activities across multiple countries rather than concentrating them in a few optimal locations. While concentration enhances efficiency by leveraging location-specific advantages, it increases exposure to localized shocks that can cascade through tightly integrated systems.

Disruptions involving Iran and the Strait of Hormuz illustrate this vulnerability. Because the Strait is a critical energy transit corridor, disruptions there can affect firms far beyond the immediate conflict zone, with particularly strong consequences for parts of Asia and Europe that are more dependent on these flows (Wiseman, 2026). Countries and firms exposed to such concentrated geographic risk may be forced to seek alternative sourcing arrangements, transport routes, or regional operating bases. This dynamic highlights the value of geographic dispersion as a way to reduce dependence on a single exposed location and maintain continuity under geopolitical disruption.

This case highlights that geographic concentration, while efficient under stability, creates systemic vulnerability when key locations are disrupted. In contrast, dispersion provides access to alternative production sites and supply bases, enabling firms to reallocate production, adjust supply chains, and shift markets. Within the Three Dimensions of Strategic Inefficiency for Resilience, geographic dispersion reduces overdependence on single locations and serves as a core mechanism for managing uncertainty in a fragmented global system. It also expands the firm's portfolio of real options by embedding multiple location-specific alternatives, each offering a potential response pathway as uncertainty unfolds.

THE THIRD DIMENSION: OPERATIONAL FLEXIBILITY AS STRATEGIC OPTIONALITY

Operational flexibility is a firm's ability to reconfigure activities in response to changing conditions, such as shifting production, adjusting sourcing, or rerouting logistics. Grounded in real options logic, it reflects investments in capabilities that provide managerial discretion to switch between alternative configurations. Its value depends on uncertainty, the ability to adjust decisions over time, and the discretion to act as conditions evolve.

The Iran–Israel–U.S. conflict illustrates this dynamic. Disruptions to key maritime routes (e.g., the Strait of Hormuz and the Red Sea) forced firms to rapidly reconfigure logistics networks. Brazilian agricultural exporters, for example, rerouted shipments through longer maritime and overland routes using pre-existing logistics relationships and diversified transport options. These responses relied on the ability to switch between alternatives, despite higher costs, and not on a single optimized system (Reuters, 2026). Firms with multiple routing options and logistics partners maintained operations, while those dependent on single pathways faced severe disruption.

Although costly (e.g., maintaining multiple partners, routes, and underutilized capacity), such “inefficiencies” create valuable strategic options. In volatile geopolitical environments, they enable real-time adaptation. Operational flexibility thus converts structural inefficiencies into adaptive capability, allowing firms to pivot across configurations as conditions change. Within the Three Dimensions of Strategic Inefficiency for Resilience, it is the mechanism that activates redundancy and geographic dispersion, enabling firms not only to absorb shocks but to continue operating under disruption.

Table 1. Illustrative Strategic Challenges in a Multipolar World and Their Corresponding Managerial Responses

Strategic Challenge	Why It Emerges in a Multipolar World	Dimension of Strategic Inefficiency	Managerial Response	Illustrative Example
Supply chain fragility	Interconnected disruptions and geopolitical shocks cascade globally	Redundancy	Develop multiple suppliers across regions; avoid single sourcing	Firms diversifying suppliers beyond one country
Over-concentration of operations	Regional instability creates single points of failure	Geographic dispersion	Distribute production and key activities across multiple locations	Companies shifting production across Asia and beyond
Inability to adapt quickly	Rapidly changing geopolitical and regulatory environments	Operational flexibility	Maintain reconfigurable capacity and overlapping capabilities	Firms building flexible manufacturing systems
Narrow country-level risk assessment	Systemic risk extends beyond individual countries	All three dimensions	Adopt a portfolio perspective across the global network	MNEs balancing presence across multiple regions

FROM INEFFICIENCY TO RESILIENCE: A SHIFT IN STRATEGIC LOGIC

Taken together, the Three Dimensions of Strategic Inefficiency for Resilience reflect a fundamental shift in strategic logic: in a multipolar world, resilience is achieved through, not despite, inefficiency. Redundancy provides buffering capacity, geographic dispersion diversifies risk exposure, and operational flexibility enables adaptation. Although each appears inefficient from a cost-minimization perspective, all directly strengthen a firm's ability to withstand systemic disruption.

This challenges the traditional assumption that efficiency and performance are aligned. Under persistent geopolitical uncertainty, inefficiencies must be deliberately designed and managed as strategic assets rather than eliminated. Viewed through a real options lens, the three dimensions function as complementary mechanisms: redundancy and dispersion create the option set, while operational flexibility enables its activation.

While the need for resilience applies broadly to MNEs, its implementation varies across sectors. In capital-intensive industries such as manufacturing, mining, and high-tech, resilience often depends more on redundancy and geographic dispersion. In service-based and digital industries, it relies more heavily on operational flexibility. Thus, the three dimensions of the framework are broadly relevant, but their practical expression differs by industry context.

WHAT MNE MANAGERS SHOULD DO NOW

The shift toward a multipolar world characterized by systemic disruption requires MNE managers to move beyond efficiency-driven optimization and adopt a resilience-oriented approach to global strategy. As outlined in the previous section, resilience is achieved through the deliberate incorporation of inefficiency across three dimensions: redundancy, geographic dispersion, and operational flexibility. The managerial challenge, therefore, is not simply to

recognize these principles, but to translate them into concrete, coordinated actions embedded in the design and governance of global operations.

[Table 1](#) summarizes the key strategic challenges emerging in a multipolar environment, their underlying drivers, and corresponding managerial responses grounded in the three dimensions of strategic inefficiency. Rather than serving as a static checklist, the table provides a structured decision framework that helps managers align specific vulnerabilities with targeted interventions. Each challenge reflects a different way in which systemic geopolitical risk manifests, while the associated responses outline how firms can proactively redesign their global configurations to enhance resilience.

The recommendations extend beyond broad strategic intent and point to specific managerial actions. For example, addressing supply chain fragility requires not only adding suppliers, but systematically developing multi-sourcing capabilities across regions, including qualifying alternative partners and maintaining relationships even when they are not immediately cost-efficient. Similarly, mitigating over-concentration involves actively redistributing critical activities across locations, supported by investment in local capabilities and institutional knowledge. Enhancing operational flexibility requires building reconfigurable processes, modular production systems, and decision-making routines that enable rapid switching across alternatives. Finally, adopting a portfolio perspective entails continuously assessing exposure across countries and regions, balancing risk and opportunity rather than optimizing for a single "best" location.

Taken together, these recommendations highlight that resilience is not achieved through isolated adjustments, but through the deliberate orchestration of redundancy, dispersion, and flexibility as mutually reinforcing strategic levers. By embedding these dimensions into ongoing decision-making processes, MNE managers can move from reactive responses to proactive resilience-building, positioning

their firms to adapt and compete under persistent geopolitical uncertainty.

The four challenges summarized in [Table 1](#) are illustrative rather than exhaustive. They are selected because they represent recurring and high-impact vulnerabilities in a multipolar world and because they correspond closely to the three dimensions of the resilience framework proposed in this article. [Table 1](#) is therefore intended as a practical synthesis of the strategic problem areas in which redundancy, geographic dispersion, and operational flexibility are most relevant.

CONCLUSION: RETHINKING GLOBAL STRATEGY IN A MULTIPOLAR WORLD

The shift from a stable unipolar order to a fragmented multipolar system exposes the limits of efficiency-driven strategies, as highly optimized value chains lack the buffers and adaptability needed to withstand systemic, cascading disruptions.

This article argues that MNEs must move beyond traditional risk management and place resilience at the core of global strategy. Doing so requires reframing inefficiency (specifically redundancy, geographic dispersion, and operational flexibility) as strategic assets rather than waste. The Three Dimensions of Strategic Inefficiency for Resilience provide a framework for building systems that can absorb shocks and reconfigure under uncertainty.

This perspective challenges the assumed alignment between efficiency and performance. From a real options view, inefficiency represents an investment in flexibility under uncertainty. The central strategic question is no longer how to maximize efficiency, but how to design systems that can endure and adapt. Firms that embrace this shift will be better positioned to compete in an environment of continuous disruption.

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