GLOBAL TRADE RESILIENCE INDEX 2025

NAVIGATING TRADE WARS

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Foreword

The global trade system is undergoing a fundamental transformation. What was once characterized by predictability and openness is now defined by uncertainty, fragmentation, and intensifying strategic competition. Over the past decade, a series of cascading disruptions including escalating tariffs, pandemic-induced supply chain breakdowns, climate volatility, and the weaponization of critical technologies, have revealed a stark reality: **resilience is no longer a luxury. It has become a core determinant of national competitiveness in the 21st century.**

The Global Trade Resilience Index 2025 is built around this new imperative. This second edition, presented under the theme *Navigating Trade Wars,* offers a comprehensive and actionable framework for understanding and enhancing trade resilience in a world where shocks are not exceptions but recurring features. At its heart is an evolved methodology that benchmarks countries not only against recent global trade disruptions but also under a forward-looking stress test: a hypothetical withdrawal of the United States from international trade networks. While not a forecast, this scenario serves as a diagnostic lens revealing the hidden dependencies, vulnerabilities, and strengths that define a nation's trade posture.

The insights generated by this edition are both urgent and illuminating. Our findings challenge the assumption that scale equals strength. **The most resilient economies are not necessarily the largest, but those that are strategically configured:** economies with diversified trade partnerships, robust digital infrastructure, strong regional integration, and agile institutions capable of adapting quickly to change. Countries such as Germany, the Netherlands, Singapore, and France exemplify this resilience model. **They do not evade disruption; they endure it, adapt to it, and emerge more competitive.**

This report is a preparation manual for the next era of global commerce.

For policymakers, it underscores the **importance of shifting from reactive crisis management to strategic design**.

For business leaders, it signals that **adaptability is** no longer a secondary virtue but **a central source of competitive advantage**.

And for the global community, it offers a vision of a trade system capable of absorbing shocks without losing coherence or purpose.

Resilience is not a reflexive response to crisis. It is a strategic investment that needs to be established during periods of stability, tested in times of disruption, and rewarded over the long term. In an era defined by volatility, those who prioritize resilience today will shape the global economic landscape of tomorrow.

Dr Raed Safadi

Partner & Chief Economist,

Whiteshield

The Team Behind GTRI 2025

The Global Trade Resilience Index 2025 (GTRI 2025) is an initiative conceived, funded, and developed by Whiteshield, a global public policy and AI economics firm with academic roots in the Harvard and OECD communities. This edition builds upon Whiteshield's proprietary GTRI framework and has been authored by a team of economists under the leadership of Dr. Raed Safadi, Partner and Chief Economist, who oversaw the writing and editorial direction of the report. Significant contributions were made by Elena Balter (Economic Modelling Lead), Shalkar Beisembay (Manager) and Hassan Gali (Senior Associate).

The authors wish to express their deep appreciation to Elena Balter for her instrumental role in the development of both the GTRI framework and the U.S. Shock Scenario methodology, which together constitute the analytical core of this report.

The team also gratefully acknowledges the contributions of Gianmarco Mazzocchi, Head of Whiteshield's AI Economics Unit, and his team, for their development of the Whiteshield Trade Navigator, which substantially informed the simulation-based results presented herein.

Appreciation is further extended to Aya Sharaf and Laura Sobh for their support in the design, communications, and marketing of the GTRI 2025.

Finally, the authors are indebted to all stakeholders and partners whose support has advanced the GTRI initiative and who share our commitment to promoting global trade resilience in an increasingly complex and uncertain international landscape.

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Content

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Executive Summary

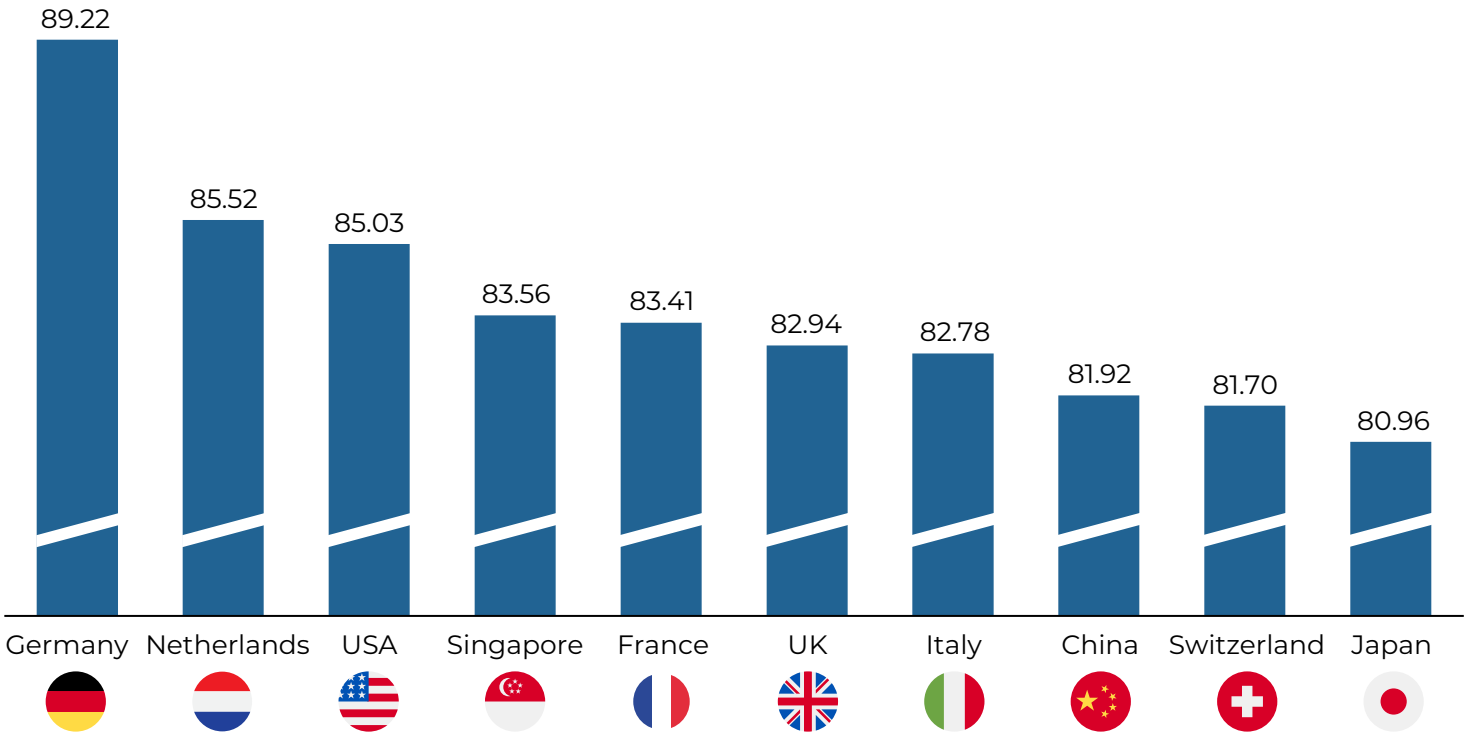
The World's Top Trade-Resilient Countries: 2025 Rankings

The Global Trade Resilience Index (GTRI) 2025, developed by Whiteshield, benchmarks national capacities to absorb and recover from systemic trade shocks. In a first for the index, the 2025 edition is released in two distinct versions: the Baseline edition, which evaluates resilience to general global trade shocks, and the U.S. Shock Scenario, which models the impact of a hypothetical U.S. withdrawal from global trade networks. This dual-edition approach allows for a deeper diagnostic of structural vulnerabilities, particularly for countries with significant exposure to the U.S. market.

The top five performers - **Germany, the Netherlands, the United States, Singapore, and France - set the standard for resilient trade ecosystems** (Figure 1).

Despite diverse contexts, they exhibit four common strengths: diversified trade portfolios, world-class logistics, robust institutional frameworks, and agile policy environments. Germany excels through its industrial complexity and deep integration within the EU. The Netherlands leverages its role as a global logistics hub. The United States benefits from economic scale and innovation-driven flexibility. Singapore leads in digital infrastructure and policy responsiveness, while France combines high-value exports with institutional strength. Together, these countries illustrate how strategic investments in resilience translate into sustained competitiveness in an increasingly volatile global trade landscape.

Figure 1. Top 10 Performers in the GTRI 2025



Source: Whiteshield

Resilience Under Pressure: Global Trade Impacts of a Hypothetical U.S. Withdrawal

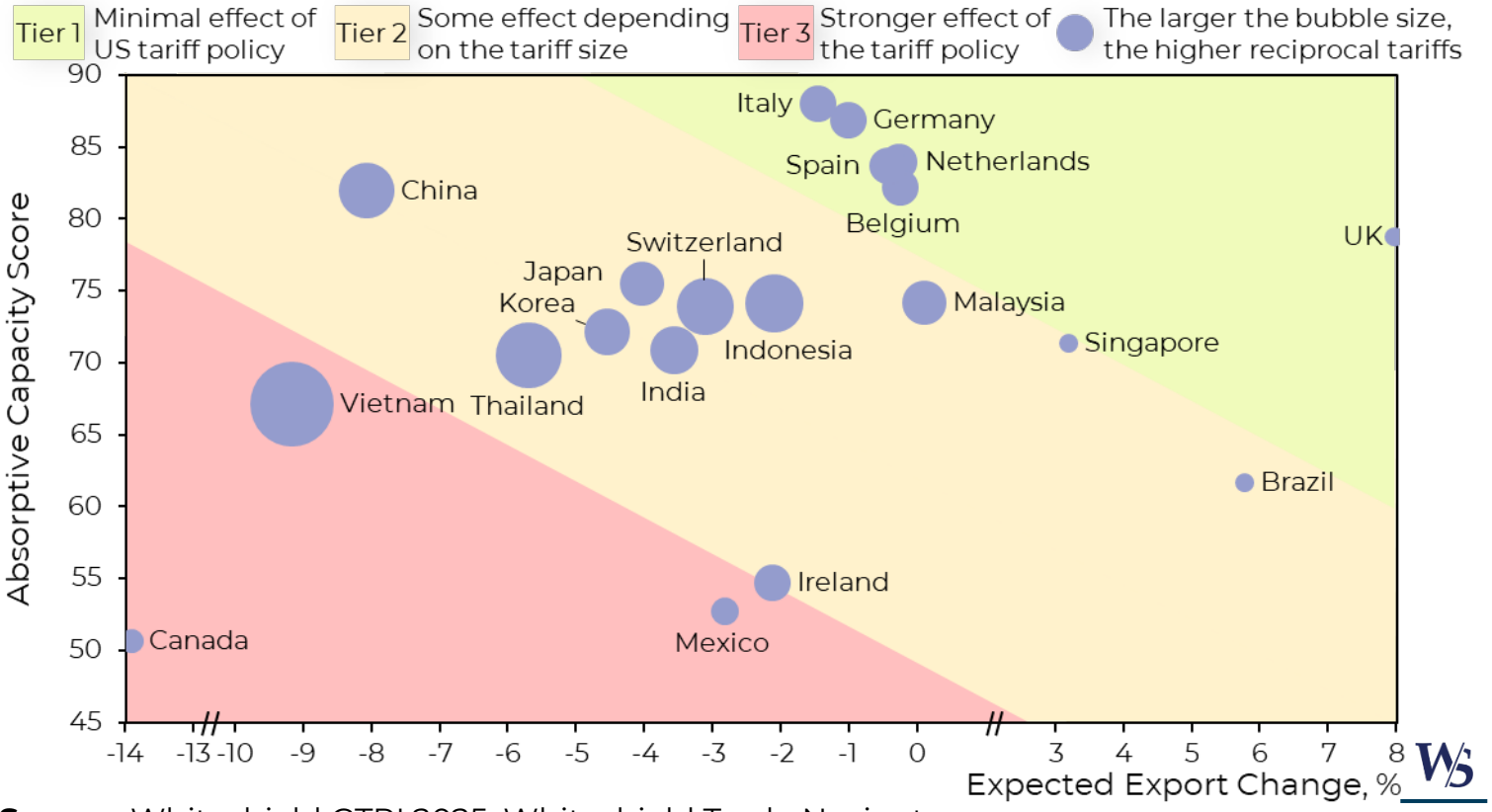
To assess national trade network vulnerability to major external shocks, a targeted simulation was conducted to **model the impact of a hypothetical U.S. withdrawal from global trade.**

The U.S. isolation test, based on the GTRI's structural trade resilience framework, was enriched with **tariff impact modeling from Whiteshield Trade Navigator** to estimate the real-time trade flow responses to U.S.-imposed tariffs and subsequent retaliatory measures (Figure 2).

- **European countries**, especially Germany and the Netherlands **demonstrate consistently high resilience**, maintaining top-tier status due to diversified trade structures and robust intra-regional linkages.
- This highlights the critical role of **regional economic cohesion in mitigating the impact of external shocks.**

- Major economies such as the **United Kingdom** and **China** show notable declines in resilience rankings when facing U.S. isolation, highlighting their **structural exposure to U.S.-centric trade networks and limited alternative buffers.**
- **Several EU economies** like Austria, Poland, Spain, and Belgium, exhibit marked improvements in resilience, which underscore the **strategic benefits of integration within diversified regional blocs.**

Figure 2. Facing the Fallout: U.S. Partners in a Trade Withdrawal Scenario



Source: Whiteshield GTRI 2025, Whiteshield Trade Navigator

Resilience Under Pressure: Global Trade Impacts of a Hypothetical U.S. Withdrawal

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- **European countries are expected to be the least impacted** by U.S. tariff policy, due to their high absorptive capacity and the relatively low reciprocal tariffs imposed by the U.S.
- In contrast, **Mexico, Canada, and Vietnam appear more vulnerable**. Both Mexico and Canada are affected by lower levels of absorptive capacity, while Vietnam faces one of the highest reciprocal tariff rates.

- East Asian and MENA economies such as **Singapore, South Korea and the UAE are more exposed to the U.S. isolation** scenario while being overall highly resilient to trade shocks.
- Their positions **reflect deeper integration with U.S.-dependent supply chains** and heightened vulnerability to abrupt changes in trade policy.

- **Lower-ranked** and emerging markets **may experience a relative improvement** in resilience rankings under the shock scenario. However, this improvement is more a reflection of their relative marginal exposure than any inherent robustness.
- Many of these countries still **lack the institutional and infrastructural capacity** to respond effectively to major disruptions.

- Regionally, **Europe shows the strongest resilience** under the U.S. isolation scenario, driven by dense intra-regional trade and coordinated policies. **East and Central Asia also improve**, supported by diversified networks and integrated supply chains.
- **Latin America, the GCC and South Asia** see **declines** due to overreliance on U.S. trade, weak regional integration, and limited diversification heightening vulnerability to external shocks.

- While not directly ranked, the **U.S. resilience** would fall from 3rd to 65th, **revealing serious economic, technological, and geopolitical risks.** Structural strengths like a large domestic market, policy agility, and innovation capacity help, but cannot offset the long-term impact of detachment from global trade. Internal strength matters, but sustained global engagement remains essential for resilience and leadership.

The combination of GTRI and Trade Navigator provides a robust framework: the GTRI captures structural resilience, while the Trade Navigator simulates near-term trade flow reactions to policy changes like tariffs.

Used together, they offer a comprehensive toolkit for policymakers to identify vulnerabilities, simulate trade shocks, and design strategic responses.

Seven key insights to drive trade resilience in the future (1/3)

While GTRI evaluates structural resilience, the Whiteshield Trade Navigator shows how trade flows adjust in real time under external pressures, offering a dual-lens approach for policymakers navigating uncertainty.

Insights from the GTRI and Trade Navigator analysis highlight eight key factors that will shape the future of trade resilience.

Diversification as risk insurance

Countries with **broad trade linkages across regions and sectors** like Germany and the Netherlands, **demonstrate superior performance in both baseline and stress-test scenarios**. Overreliance on a few partners, notably the U.S., exposes economies such as China and the UK to sharp resilience declines in the U.S.-shock simulation. **Trade diversification, both geographic and product-based, is the single most effective hedge against external shocks.**

Regional integration buffers global volatility

Europe emerges as the most resilient regional hub not only because of high-performing individual economies but also due to dense intra-regional trade, harmonized standards, and coordinated policy mechanisms. This contrasts with North America, where Canada and Mexico's heavy trade dependence on the U.S. leaves them vulnerable. Similarly, East Asia's production networks boost resilience through supply chain complementarity.

Digital infrastructure accelerates recovery

Nations that have **invested in digital trade systems**, such as real-time customs platforms, blockchain-based logistics, and smart ports, **exhibit faster and more stable recovery capacities**. The Netherlands, Singapore, and increasingly France showcase how **digitalization enhances supply chain visibility, reduces friction, and enables rapid adaptation during crises.**

Seven key insights to drive trade resilience in the future (2/3)

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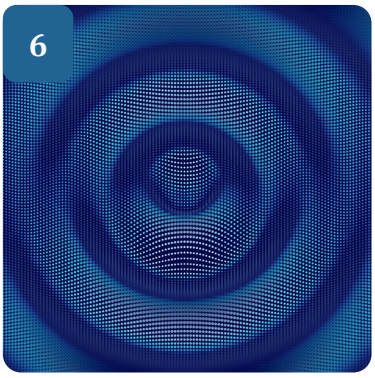
Institutional agility as a strategic lever

Strong governance and adaptive institutions, evident in countries like Switzerland and Sweden, play a decisive role in resilience. The ability to swiftly deploy emergency trade measures, negotiate new trade routes, or reform regulations under pressure separates high performers from lagging peers. **Institutional quality contributes directly to recovery capacity in the GTRI framework, reinforcing its role as a foundational pillar of trade resilience.**

Resilience is context-dependent

The U.S. withdrawal scenario highlights how sudden policy shifts by a dominant trade actor can reshape the global economic landscape. Countries with diversified and adaptable trade networks tend to perform better, while those heavily reliant on the U.S. face immediate strain. These findings underscore the importance of developing **multi-polar trade strategies, strengthening regional supply chains, and enhancing domestic absorptive capacity to withstand future geopolitical and economic shocks.**



Absorptive capacity matters, but isn't everything

Absorptive capacity (the ability to endure immediate shocks) shows a strong correlation with trade performance under stress, as indicated by the Trade Navigator. However, **structural fragility in lower-ranked countries means that even limited shocks can cause significant disruption, regardless of their direct exposure to the U.S.** This emphasizes the **need for structural investments that go beyond tactical trade relationships.**

Resilience is uneven but contagious

Top-ranked countries disproportionately shape trade flows. Their ability to absorb shocks often stabilizes surrounding regions, while fragile economies can amplify instability. Thus, **trade resilience is both a national asset and a regional public good**. Strengthening weaker links, particularly in Sub-Saharan Africa and parts of South Asia, is essential for the resilience of the entire global trade system.

Seven key insights to drive trade resilience in the future (3/3)

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Key Takeaway

In sum, the GTRI 2025 confirms that **resilience is not reactive; it's strategic.** Countries that proactively invest in adaptability, diversification, institutional agility, and position themselves advantageously within global trade networks are not only better protected from disruptions but also better positioned to capture trade realignments and growth opportunities in an increasingly fragmented world. **Trade resilience is the new baseline for global competitiveness.**

The Strategic Cost of Disengagement: U.S. Trade Resilience Under Isolation

While the U.S. ranks 3rd in the baseline GTRI rankings, its position falls dramatically to 65th under the U.S. shock scenario, an extreme case simulating a complete withdrawal from global trade in goods. This sharp drop illustrates the profound strategic and economic consequences of disengaging from international trade networks.

The scenario captures a range of cascading effects: disrupted supply chains, reduced trade volumes, rising input costs, and a decline in export competitiveness.

Over time, these dynamics would suppress economic activity, hinder productivity, and erode the country's innovation capacity due to diminished access to foreign markets, emerging technologies, and global collaborative ecosystems.

Despite this decline, the U.S. continues to exhibit structural advantages that underpin its high baseline resilience. These strengths help explain why the country retains a measure of stability, even under severe isolation, relative to more trade-dependent economies.

Key Structural Strengths at Baseline

Large and self-sustaining domestic market

The U.S. is anchored by one of the world's highest per capita GDPs and a robust consumer market. This economic scale supports a high degree of self-reliance, enabling domestic demand to act as a buffer when faced with a shock, internal or external.

Policy agility

The U.S. has a strong track record of responding swiftly to economic shocks through fiscal and monetary policy. This flexibility enhances its ability to stabilize the economy during trade disruptions.

Digital infrastructure and trade systems

Advanced digital tools, including e-customs, smart logistics, and integrated supply chain platforms enhance adaptability by supporting operational continuity and visibility under stress.

Innovation capacity

As a global innovation leader, the U.S. benefits from top research institutions, strong entrepreneurship, and robust R&D. However, sustained isolation would erode this edge by limiting access to foreign talent, global technologies, and knowledge flows that drive innovation.

Although the U.S. shock scenario was designed to test the ripple effects of an economic giant exiting the global trade system, it also exposes the strategic vulnerabilities of the U.S. itself under such conditions.

The drop to 65th place is not a result of institutional fragility, but a reflection of how deeply the U.S. benefits from global trade integration. Even with strong internal markets and financial systems, the long-term erosion of connectivity would carry significant costs: economically, technologically, and geopolitically.

The key insight is this: structural strength can buffer short-term shocks but cannot substitute for global integration. For the U.S., sustained trade resilience and its future leadership will depend not only on internal capacity, but on its continued ability to remain engaged, collaborative, and adaptive within the evolving global economy.

A National Imperative in Response to Escalating Trade Tensions

Global trade has entered an era of systemic risk. Traditional models built on just-in-time efficiency and over-concentrated trade dependencies are proving fragile. From the 2018 U.S.-China tariff escalations and supply chain bottlenecks during COVID-19 to rare earth crises and the current trade tensions, countries lacking structural trade resilience are increasingly vulnerable.

In this high-volatility environment, resilience has moved from a theoretical virtue to a strategic necessity. Trade disruptions are no longer rare shocks; they are persistent features of a fractured global economy. Nations must proactively build capacity across infrastructure, governance, digital systems, and market integration to absorb, adapt to, and recover from shocks.

The Global Trade Resilience Index (GTRI) 2025 responds to this urgent need. This second edition, themed Navigating Trade Wars, provides a comprehensive, data-driven framework for diagnosing and strengthening national trade resilience. It is structured into five core sections:

Section 1: Strategic Foundations of Trade Resilience establishes the conceptual foundations of trade resilience. It introduces twelve interdependent pillars - ranging from trade diversification to institutional agility - and draws lessons from past disruptions to offer forward-looking strategic pathways.

Section 2: GTRI Methodology and Framework details the methodology of the GTRI, assessing countries across absorptive and recovery capacities using 58 indicators. A novel feature this year is the inclusion of a stress-test scenario simulating a U.S. withdrawal from global trade, offering a forward-looking view of structural vulnerabilities.

Section 3: GTRI 2025 Rankings and Insights Presents the 2025 GTRI results and reveals how leading economies - such as Germany, the Netherlands, Singapore, and France - combine infrastructure, digital readiness, and institutional robustness to excel. It also explores regional resilience clusters and intra-regional disparities.

Section 4: Stress Testing with the U.S. Shock Scenario. Models the impact of the U.S. shock scenario. It demonstrates how resilience rankings shift under asymmetric disruption, exposing countries heavily dependent on U.S. trade links. The analysis underscores the strategic value of diversification and regional integration.

Section 5: GTRI 2025 Policy Implications and Recommendations extracts actionable recommendations for governments and businesses. It emphasizes investing in digital and physical infrastructure, securing critical inputs, building institutional agility, and fostering international cooperation to create resilient trade ecosystems.

GTRI 2025 is more than a benchmarking tool; it is a strategic playbook. In an era where disruption is the norm, trade resilience must be cultivated deliberately, not improvised reactively. Nations that lead in this domain will not only withstand future shocks, they will define the next chapter of global economic leadership.

Without deliberate and forward-looking investment in institutional capacity, resilient infrastructure, diversified supply chains, and agile policy frameworks, nations risk more than temporary disruptions. They face the prospect of enduring economic fragmentation and diminished strategic autonomy

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Section 1: Strategic Foundations of Trade Resilience

1.1 The Case for Trade Resilience in a Volatile World

Global trade is under constant strain from disruptions, ranging from geopolitical conflicts and economic shocks to pandemics and climate events. These pressures highlight the urgent need for trade resilience: the ability of countries to absorb shocks and transform their trade systems for long-term stability. Trade resilience is not a luxury; it is a strategic imperative to ensure nations can keep goods, services, and investments flowing even in turbulent times.

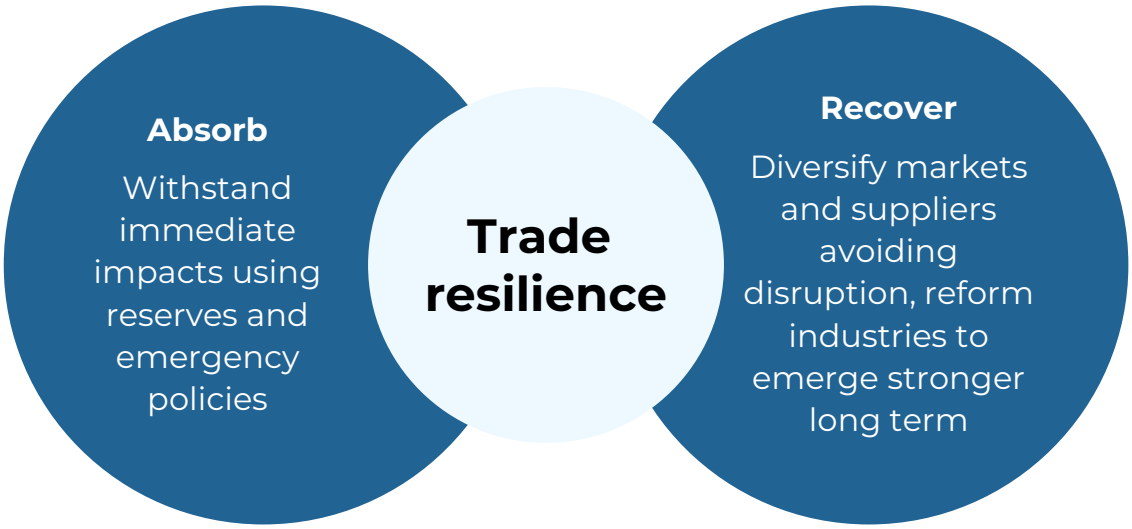
This section outlines why trade resilience matters and how it can be achieved. It breaks down the core components of a resilient trade system, illustrating each with real-world examples. Key pillars include diversifying trade partnerships, building robust infrastructure and financial safeguards, and maintaining flexible policies and workforces. The section also distills lessons from past trade disruptions from the 1930s Great Depression to recent tariff wars, showing how countries that proactively bolster these resilience factors fare better.

Finally, it explores several scenarios for the future of global trade in an era of rising tariffs and tension, and emphasizes that regardless of the scenario, investing in resilience is the best path forward. The conclusion provides actionable takeaways for policymakers and business leaders on strengthening trade resilience now to safeguard prosperity in an uncertain global future.

What is Trade Resilience?

Trade resilience refers to a nation's ability to withstand and recover from external trade shocks while maintaining the flow of goods, services, and capital. In practical terms, a resilient trade system can **absorb** immediate impacts (for example, by using reserves or emergency policies), **adapt** in the medium term (by finding new markets or suppliers when usual ones are disrupted), and **recover** over time (by reforming industries or strategies to emerge stronger) (Figure 3).

Figure 3: Trade Resilience Conceptual Framework



Use strategic reserves, activating emergency funds, implementing temporary tariff reliefs

Diversify supply chains, develop alternative markets, adjust logistics networks, invest in new technologies, reform trade agreements, build domestic capabilities

Source: Whiteshield

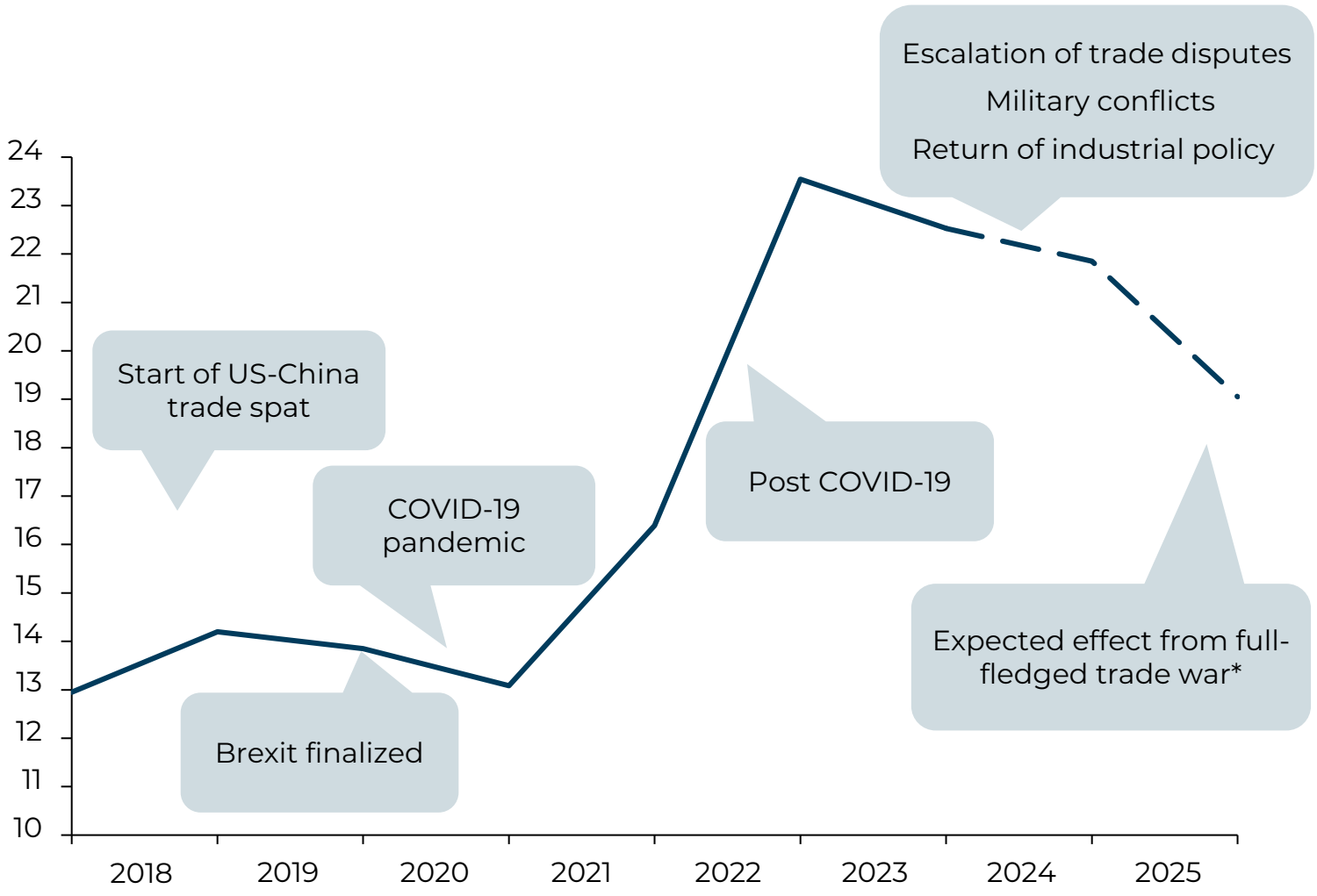
1.1 The Case for Trade Resilience in a Volatile World

This means that even when faced with events like sudden tariffs, supply chain breakdowns, or global recessions, a resilient economy can continue operating and eventually bounce back with minimal long-term damage.

Building trade resilience has become essential in today's world, where disruptions are frequent and often unpredictable. Geopolitical tensions, such as tariff disputes between major powers and global crises like pandemics or financial turbulences can emerge suddenly and have widespread consequences (Figure 4).

Without a resilient system in place, countries risk significant economic damage every time a shock occurs, including factory closures, job losses, surging prices, and even social unrest. In contrast, a **trade system designed for resilience acts as a buffer, helping to preserve national stability and support continued growth.**

Figure 4: World Total Export and Re-exports, 2017-2025, USD Tn



Source: Whiteshield, Comtrade
Note: the dash line reflects the Whiteshield Trade Navigator estimates of impact of current trade tensions of global trade

1.2 The Twelve Pillars of a Resilient Trade System

Source: Whiteshield

1.2 The Twelve Pillars of a Resilient Trade System

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Achieving trade resilience requires a combination of strategies and capacities. Below are the core pillars that make a country's trade system more resilient, each illustrated with a real-world example:

1

Diversification of Trade Partners and Products: Relying on too few export markets or a single commodity makes a country vulnerable to external shocks. Diversifying across multiple partners and products spreads risk. For instance, Canada has diversified beyond the U.S. by establishing agreements such as CETA with the EU and CPTPP with Asia-Pacific countries, ensuring alternative buyers and suppliers[1][2][3]. Diversification not only reduces vulnerability to protectionist policies but also enhances market access during global downturns.

Canada has reduced its reliance on the United States by forging new trade deals and relationships with Europe and the Asia-Pacific (such as the EU and Pacific Rim countries, and South Korea), ensuring it has alternative buyers and suppliers during U.S. trade disruptions

2

Participation in Global Supply Chains: Integration into regional and global value chains enables specialization and access to wider markets. It also increases flexibility when shocks occur. Thailand, for example, benefits from integration into East Asian manufacturing networks and trade pacts like RCEP, allowing it to adjust sources and destinations when disruptions hit[4].Similarly, Vietnam has embedded itself in electronics and garment supply chains, which has facilitated rapid shifts in sourcing during crises.

Thailand's deep integration into East Asian manufacturing supply chains (in industries like automotive and electronics) means it can leverage partners in Japan, China, and South Korea. When faced with disruptions, Thailand's involvement in multiple trade agreements and production networks (e.g. the Regional Comprehensive Economic Partnership in Asia) helps it reroute goods or source inputs from alternate channels, softening the impact of any single export market's troubles

Sources: 1 Atlantic Council. (2024). Canada's Trade Strategy in a Multipolar World. Atlantic Council Policy Briefs.
2 Government of Canada. (2023). Canada's State of Trade 2023. Global Affairs Canada.
3 International Monetary Fund (IMF). (2022). "Regional Economic Outlook: Western Hemisphere". Washington, DC: IMF.
4 Jongwanich, J. (2021). Global Value Chains and Resilience: The Case of Thailand. United Nations ESCAP Working Paper Series.
5 World Bank. (2022). "Global Value Chain Development Report 2022: Resilience in GVCs". Washington, DC: World Bank.
6 Evenett, S. (2023). "Resilience and Dependence in Strategic Commodities". CEPR Policy Insight Series
7 Humphries, M. (2020). "Rare Earth Elements: The Global Supply Chain". Congressional Research Service Report R41347.

1.2 The Twelve Pillars of a Resilient Trade System

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3

Strategic Reserves and Resource Security: Maintaining stockpiles and diversified access to critical resources provides a buffer in crises. After China's 2010 rare earth export restrictions, Japan diversified imports and invested in recycling and reserves [5 6 7]. Strategic reserves can also include food security measures, as demonstrated by Singapore's stockpiling of rice and partnerships with regional suppliers.

After experiencing a supply crisis in 2010 when China restricted exports of rare earth minerals (crucial for electronics and green technology), Japan invested in rare earth recycling, diversified its supply sources, and built-up stockpiles. Japan even partnered with countries like Australia to guarantee access to these critical materials, protecting its tech industries from future shocks

4

Geo-Strategic Location and Trade Routes: Geographic advantage can enhance resilience through multiple trade routes. Türkiye, positioned at the crossroads of Europe and Asia, leverages infrastructure investments and regional agreements to maintain trade flows despite regional instability[8 9]. Likewise, Panama benefits from control over the Panama Canal, enabling rerouting of maritime trade during disruptions.

Türkiye's location bridging Europe, Asia, and the Middle East gives it strategic importance. It serves as a key energy and logistics corridor, hosting major oil and gas pipelines and overland routes connecting East and West. Türkiye has capitalized on this by investing in transportation links and trade agreements. As a result, it can keep trade flowing by routing goods through multiple corridors (like the "Middle Corridor" through Central Asia) if traditional routes such as the Suez Canal or Black Sea are disrupted

Sources:
5 World Bank. (2022). "Global Value Chain Development Report 2022: Resilience in GVCs". Washington, DC: World Bank.
6 Evenett, S. (2023). "Resilience and Dependence in Strategic Commodities". CEPR Policy Insight Series
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8. Stoll, B. (2024). Geopolitics and Logistics: Türkiye's Trade Corridors. Brookings Institution.
9.World Trade Organization (WTO). (2021). World Trade Report 2021: Economic Resilience and Trade. Geneva: WTO.

1.2 The Twelve Pillars of a Resilient Trade System

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5

Robust Infrastructure and Logistics: Efficient logistics and transport systems are crucial for rerouting goods in crises. Dubai's Jebel Ali Port and logistics zones allowed it to serve as a distribution hub during COVID-19, maintaining its trade role amid global disruptions[10].

Dubai has invested heavily in world-class transport and logistics facilities. Its Jebel Ali Port is one of the largest and most advanced in the world, and along with modern airports and integrated logistics zones, it enabled Dubai to continue operating as a global trade hub even when the COVID-19 pandemic or incidents like the Suez Canal blockage disrupted others. During the pandemic, Dubai's logistical strength allowed it to become a major distribution center for medical supplies and vaccines, illustrating how infrastructure translates into resilience

6

Access to Trade Finance and Insurance Trade finance is critical for liquidity during downturns. Saudi Arabia established an Export-Import Bank in 2020 to support non-oil exporters with loans and insurance during COVID-19, facilitating continued trade[11]. Similarly, institutions like the African Export-Import Bank provide counter-cyclical loans to sustain intra-African trade during downturns [12].

Saudi Arabia boosted its trade resilience by establishing a national Export-Import Bank in 2020 to support non-oil exporters. When global trade slowed during COVID-19, this institution provided loans and insurance to Saudi firms, helping them continue selling to markets in Africa and Asia despite logistics challenges. Such financial backstops ensured that trade could carry on and that companies had the liquidity to survive the downturn

Sources:
10.DP World. (2020). Jebel Ali Port: Resilience During Global Disruptions. DP World Logistics Report
11. Ministry of Finance (MOF), Kingdom of Saudi Arabia. (2020). Establishing the Saudi EXIM Bank: Enhancing Export Capacity. Riyadh: MOF
12. WTO & International Finance Corporation (IFC). (2021). Trade Finance and the SMEs Gap: Bridging the Divide. Geneva: WTO.

1.2 The Twelve Pillars of a Resilient Trade System

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7

Strong Institutional and Policy Frameworks: Transparent and stable trade policy enhances predictability and supports rapid crisis response. New Zealand's regulatory environment, characterized by rule of law and clear governance, fosters trade stability and trust[13] [14]. The EU's single market legal framework also enables coordinated response during supply disruptions.

New Zealand's consistent and transparent regulatory environment makes it easier for trade to flow efficiently in normal times and allows the government to react swiftly in emergencies. Businesses trading with New Zealand trust that rules won't change arbitrarily, which reduces uncertainty during global turmoil

8

Flexible and Skilled Labor Force: A workforce that adapts to shifting market needs underpins economic resilience . Germany's vocational training and apprenticeship system allows quick sectoral pivots, cushioning against export market shocks[15] [16] .In Singapore, government-funded retraining programs during COVID-19 enabled workers to move into logistics and healthcare.

Germany's emphasis on vocational education and apprenticeships means workers have a broad base of practical skills. This system has allowed German workers and companies to pivot toward new manufacturing niches and advanced technologies over time – a flexibility that proved valuable when traditional export markets or industries faced challenges

Sources:
13. Sense Partners. (2023). Regulatory Stability and Trade Resilience: The Case of New Zealand. Wellington: Sense Partners Economic Reports.
14. Organisation for Economic Co-operation and Development (OECD). (2021). Trade Policy and Economic Resilience. Paris: OECD Publishing.
15. OECD. (2022). Apprenticeships and Vocational Training in Germany: A Pathway for Adaptability. Paris: OECD.
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1.2 The Twelve Pillars of a Resilient Trade System

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9

Agile Trade Policy and Crisis Response: Responsive trade policy can reduce disruption severity. Vietnam acted swiftly during COVID-19, easing restrictions and adapting customs protocols to maintain exports and attract reshoring investment[17]. Chile similarly adjusted tariffs and facilitated digital customs clearance to maintain flow of goods.

Vietnam showed agility during the COVID-19 pandemic by swiftly easing export restrictions and streamlining customs for medical goods. It also kept factories running under safety protocols. This rapid policy response helped Vietnam recover faster and even gain a reputation as a reliable link in global supply chains when other sources were shut down.

10

Stable Economic Fundamentals: Macroeconomic stability supports resilience. Switzerland's disciplined fiscal policies and monetary independence have historically helped maintain investor confidence and continued trade through crises[18] . Countries with strong reserves and low debt-to-GDP ratios can implement counter-cyclical measures without market backlash.

Switzerland's long-standing policies of fiscal discipline and an independent central bank have kept inflation low and the economy steady. In global downturns or financial crises, Switzerland's solid economic fundamentals allowed it to maintain investor confidence and keep trading, highlighting how overall economic stability supports trade resilience

Sources:
17.Morisset, J. (2020). Vietnam's Trade Policy Response to COVID-19: A Case Study in Agility. World Bank Blogs.
18. IMF (2024), Switzerland: Article IV Consultation Report

1.2 The Twelve Pillars of a Resilient Trade System

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11

Connectivity to Multiple Trade Routes: Countries with diversified transport corridors can reroute trade when disruptions occur. The Netherlands' Rotterdam port and integrated European logistics network mitigate single-route dependence[19] . Similarly, Ethiopia's new rail links to Djibouti enhance its export options beyond conflict-prone roadways.

The Netherlands benefits from hosting Europe's largest port in Rotterdam and an extensive network of canals, railways, and highways into the heart of Europe. This connectivity allows the Netherlands (and its neighbors relying on Dutch ports) to handle supply chain shocks more effectively; if one shipping route faces delays, well-developed alternate routes can take up the slack

12

Robust Domestic Demand: A strong internal market can offset export shocks. During the U.S.-China trade war, China increased reliance on domestic consumption and investment, softening the impact of reduced external demand[20]. India's large internal market also provides a buffer, allowing exporters to shift focus inward during global slowdowns[21].

During the 2018–2019 US-China trade war, China responded in part by turning to its vast domestic market. The Chinese government encouraged domestic consumption and investment (sometimes referred to as a "dual circulation" strategy), so even as exports to the U.S. fell, Chinese companies could sell more to consumers at home, softening the blow and buying time to adapt

Each of these pillars contributes to trade resilience. **No single factor alone is sufficient**. True resilience comes from reinforcing all these aspects so that when one part of the system is under stress, others compensate. The examples above show that countries proactively investing in these areas have been able to navigate crises and often emerge with even stronger trade capabilities.

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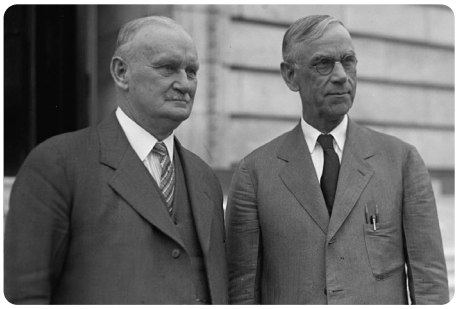
20. Center for Strategic and International Studies (CSIS). (2021). China Power: The Dual Circulation Strategy Explained. Washington, DC: CSIS.
21. World Bank. (2020). Navigating the Pandemic: Economic Update for East Asia and the Pacific, October 2020. Washington, DC: World Bank

1.3 Lessons from Historical Trade Disruptions

History provides clear lessons on the importance of trade resilience. When major trade disruptions have occurred, countries that could not adjust suffered prolonged economic pain, while those that adapted swiftly emerged more robust. Three historical episodes illustrate this:

1930



Rep. Willis C. Hawley, left, and Sen. Reed Smoot co-sponsored the 1930 tariff bill

Library of Congress

The Smoot-Hawley Tariff Act

The United States **sharply raised tariffs on thousands of imports** (the Smoot-Hawley Act) in an attempt to protect domestic industries. Many **trade partners retaliated** with their own tariffs. The result was **a collapse in global trade** at the worst possible time, deepening the Great Depression worldwide. Most countries back then had undiversified trade and weak coordination, so they could neither absorb nor effectively respond to the shock.

This painful experience taught the world **that beggar-thy-neighbor protectionism can make everyone worse off.** It eventually led to transformative changes, notably the creation of cooperative frameworks like the General Agreement on Tariffs and Trade (GATT) in 1947 to prevent such disastrous trade wars in the future.

1980s

U.S. Lawmakers smash Japanese Toshiba Radios at U.S. Capitol in protest of Toshiba's sale of technology to Soviet Union

Getty Images

U.S.–Japan Trade Tensions

The U.S. imposed tariffs

and quotas on products like Japanese cars and electronics, aiming to reduce its trade deficit with Japan. Japan's economy at the time was heavily dependent on exporting these goods to the US, so these measures could have been devastating. However, Japan demonstrated trade resilience: companies from Japan responded by investing in production facilities abroad (including in the U.S.) to avoid tariffs, shifting some focus to other export markets, and moving into higher-value industries (such as semiconductors and advanced components). Japan's adaptable strategy, spreading production internationally and innovating up the value chain, helped it absorb the impact. The Japanese economy continued to grow, showing that diversification and innovation can mitigate the effect of even significant trade barriers

Sources:
22. Mitchener, K.J., O'Rourke, K.H. & Wandschneider, K. (2022), The Smoot-Hawley Trade War, Economic Journal, Vol. 132NBER (1996)
23. U.S. Automobile Protection, in The Political Economy of American Trade Policy, Univ. of Chicago Press
24.Khandelwal, P. D. (2022). The Economic Impacts of the US-China Trade War. Annual Review of Economics, Vol 14: 205-208.

1.3 Lessons from Historical Trade Disruptions

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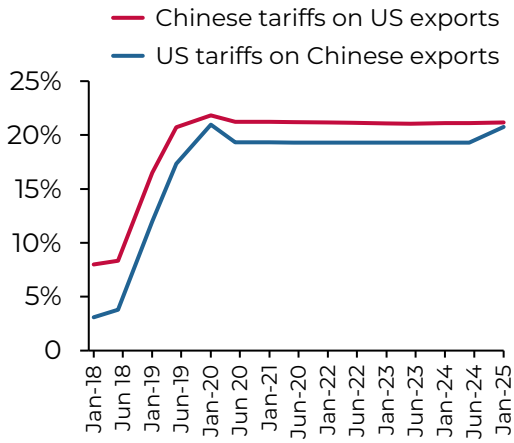
2018-2019



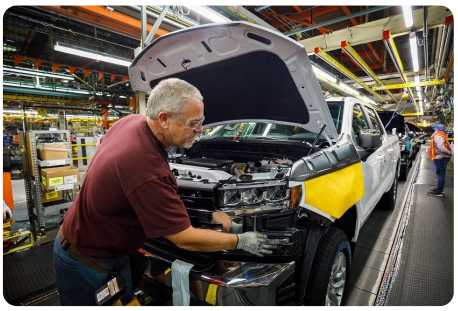
U.S.-China Trade War

A more recent example is the **tariff battle** between the world's two largest economies. The U.S. raised tariffs on hundreds of billions of dollars' worth of Chinese goods, and China retaliated in kind. Both countries had to cope with major disruptions, but both also employed resilience measures:.

Chinese semiconductor manufacturing facility

Photo: VCG

China absorbed some of the shock by using government buffers: it provided subsidies and financial support to affected industries, and let its currency adjust. It also adapted by redirecting exports to other markets in Asia, Africa, and Europe, and by pushing domestic consumers to buy more home-grown products. At the same time, China started transforming its economy, investing heavily in technology and innovation to rely less on foreign inputs (for example, developing its own semiconductor industry) and to become more self-sufficient in the long run.



U.S. Automotive factory "made In America'

The United States initially absorbed impacts by supporting farmers and manufacturers hurt by lost Chinese sales (through subsidies and aid packages). U.S. companies began adapting by seeking alternate suppliers outside China (shifting some sourcing to Southeast Asia, for instance) and exploring new export markets. In terms of transformative changes, the trade war spurred U.S. policymakers to prioritize domestic manufacturing of critical products by, for example, passing new laws to incentivize semiconductor production at home so the U.S.is less dependent on Chinese supply chains in the future

Sources:
24. Khandelwal, P. D. (2022). The Economic Impacts of the US-China Trade War. Annual Review of Economics, Vol 14: 205-208, Pearson International Institute of Economics, UN COMTRADE.

1.3 Lessons from Historical Trade Disruptions

These episodes underscore that **resilience lies in the ability to quickly adjust and innovate in the face of trade disruptions.** When countries lacked diversification or policy tools (as in the 1930s), the outcome was economic collapse. When they were prepared or responded nimbly (as Japan and, to an extent, China and the U.S. did), they managed to weather the storm and even make long-term improvements.

Moreover, past experiences reveal that **trade resilience is multi-faceted. It's not built on any single policy or strength, but on a combination of diverse trade links, strong domestic foundations, and agile strategy.** Countries with a broad mix of trade partners, robust infrastructure and finances, skilled human capital, and responsive governance have consistently handled crises better and recovered faster. This insight is critical as we look ahead to a world where further disruptions are likely.

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Trade resilience is a multifaceted system

It’s not built on any single policy or strength, but on a combination of diverse trade links, strong domestic foundations, and agile strategy

1.4 Scenarios for the Future of Global Trade

Looking forward, the global trade landscape faces significant uncertainty, especially in the wake of recent U.S. tariff actions and retaliation by other nations.

Several plausible scenarios could unfold in the coming years, each with its own challenges and implications for trade resilience. Four key scenarios include:

1. Global Trade Wars: Escalation of Protectionism

In this worst-case scenario, tit-for-tat tariff increases spiral into widespread protectionism. Major economies repeatedly slap high tariffs or quotas on each other's goods, causing severe disruptions in supply chains and slower economic growth worldwide. Risks: Production delays, higher costs for consumers, and rising inflation as imports become pricier. Potential silver lining: A few domestic industries might enjoy short-term protection from foreign competition (for instance, local farmers or steel producers could see a boost behind tariff walls). However, overall trade volumes would shrink, businesses would face great uncertainty, and international cooperation would erode. This scenario could force companies to drastically rethink global sourcing and could strain diplomatic relations.

2. Decoupling into Competing Blocs

Here, the world economy breaks into two or more distinct blocs centered around the U.S. and China. Each superpower leads its own trade and technology ecosystem with different standards and supply networks, and other countries feel pressured to align with one side or the other.

Impacts: Global supply chains fragment, for example, high-tech industries might have separate American-led and Chinese-led production networks that don't intersect. Countries may restrict technology and investment flows between blocs. Risks: Higher costs and inefficiencies as companies duplicate efforts to cater to each bloc's rules and increased geopolitical tension. Opportunities: New regional alliances can form among middle powers; for instance, nations in Southeast Asia, Africa, or Europe might band together to increase self-reliance or leverage their neutrality. Businesses that adapt quickly could tap into emerging markets in whichever bloc is hungry for new partners (for example, if a company cannot sell into China, it might find growth in India or vice versa). Overall, decoupling would test trade resilience by requiring nations and firms to be very agile in redirecting their economic ties.

1.4 Scenarios for the Future of Global Trade

3. The "New Normal": Resilient Regionalization

In this scenario, the world does not return to pre-2018 free trade dynamics, but the situation stabilizes at a moderate level of restriction. Tariffs and barriers put in place in recent years remain, but they stop getting worse. Businesses and governments adjust to this reality by prioritizing resilience and predictability. Characteristics**:** Companies shift supply chains to "friends" or neighbors, a concept often called friend-shoring or near-shoring. This means critical goods are increasingly produced within allied countries or closer regions to reduce risk.

Regional trade agreements and blocs (e.g., within North America, Europe, or Asia) become more important than distant global ones. Risks: Regional arrangements could create their own frictions or exclusive groups, and nations with divergent policies might clash even within regions. Opportunities: Firms that invest in resilient practices (like multiple suppliers and regional hubs) gain a competitive edge. Emerging economies in regions like Southeast Asia, Eastern Europe, or Latin America could benefit as manufacturers seek new locations outside the U.S. or China. Outlook: Globalization continues, but it is redefined, flowing more through regional circuits than a single worldwide market. The emphasis is on stability and flexibility. In this "new normal," trade grows again, but carefully, and resilience becomes a key metric of success. This scenario is essentially a balanced middle ground and is widely viewed as **the most likely path ahead** given current trends.

4. Back to Business, Return to Global Cooperation

In the most optimistic case, major powers step back from confrontation and gradually roll back recent tariffs and barriers. Through renewed diplomacy and perhaps new trade agreements, tensions ease. Impacts: Global trade would rebound as uncertainty diminishes, and markets reopen. Multilateral institutions like the World Trade Organization (WTO) could regain authority as countries once again seek cooperative solutions. Benefits: Businesses worldwide would enjoy a more predictable environment, making it easier to invest, plan supply chains, and operate across borders.

Consumers would benefit from lower prices and more product choices as tariffs fall. **Cautions:** Even a return to cooperation could bring challenges; a rapid upswing in trade might revive issues like trade imbalances (if one country imports far more than it exports) or put environmental and labor standards under strain if growth is prioritized at any cost. Policymakers would need to manage the resurgence of globalization carefully to ensure it is inclusive and sustainable. Nonetheless, this scenario would mark a revival of the open, interconnected global economy, to the benefit of both developed and developing nations.

1.4 Scenarios for the Future of Global Trade

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Most Probable Scenario, A Moderated "New Normal"

Among these scenarios, on-the-ground trends suggest that a partial New Normal of resilient regionalization is most likely (Figure 5).

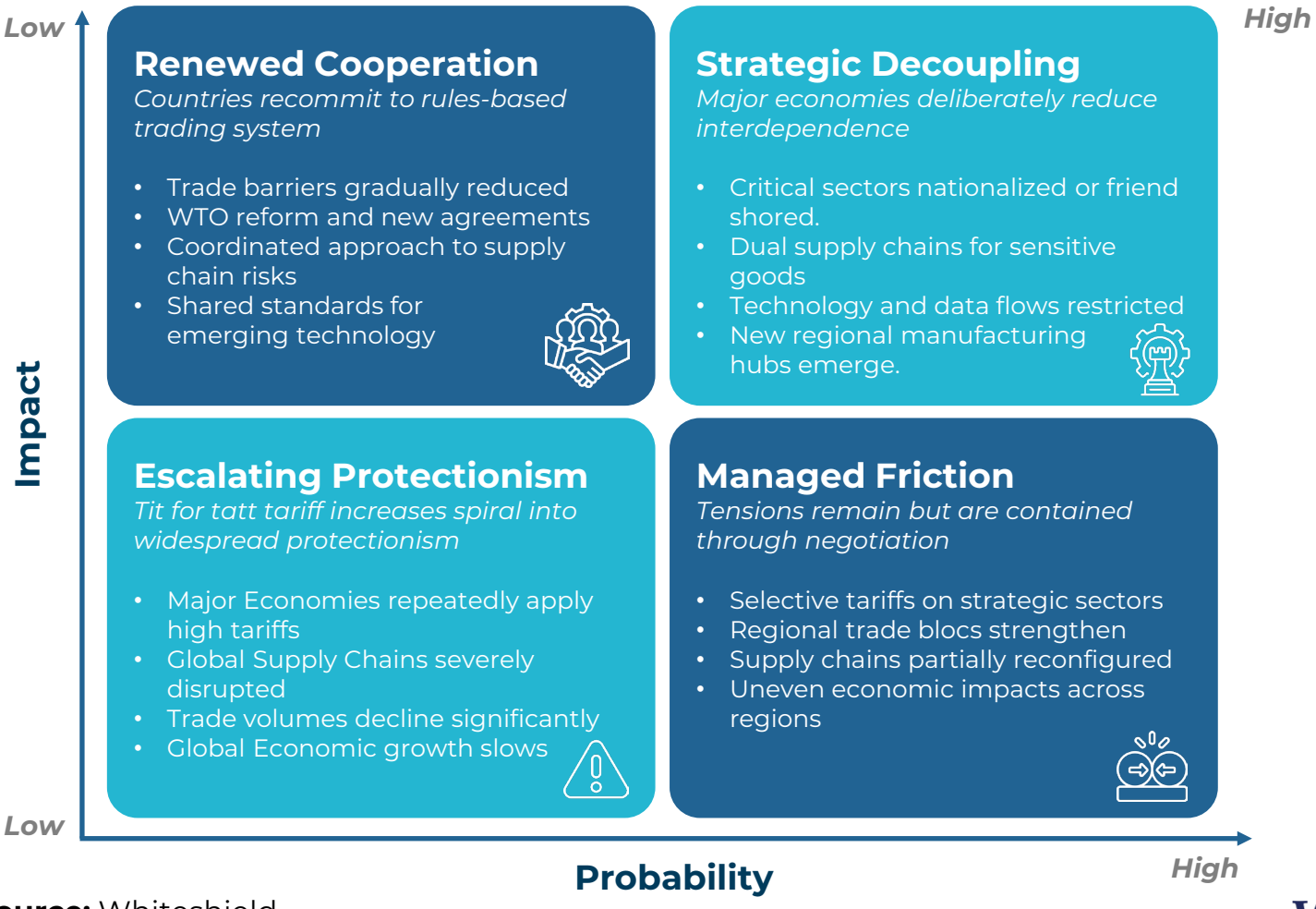
Full-scale global trade war (scenario 1) is in no one's long-term interest, and key players have shown some restraint to avoid total collapse. Complete decoupling into isolated blocs (scenario 2) is happening to a degree in strategic sectors (like technology), but most countries are reluctant to sever all ties and still seek a middle path.

On the other hand, a quick return to the old days of frictionless trade (scenario 4) seems unlikely in the near term given lingering distrust and new political priorities.

In the "New Normal" environment, we can expect continued geopolitical jockeying and periodic disputes, but also a pragmatic recognition that trade must go on. Nations and businesses will likely pursue a strategy of "competitive cooperation," forming regional partnerships and alliances to protect their interests, while also investing in being self-sufficient enough to handle shocks.

Crucially, resilience will be the watchword of this next phase of globalization. Governments and companies alike will focus on diversifying supply chains, securing critical resources, and building flexibility into every aspect of trade. Those that succeed in doing so will thrive despite the uncertainties, whereas those that do not may struggle with each new disruption.

Figure 5: Future Scenarios for Global Trade



Source: Whiteshield

1.5 Key Takeaways and Policy Recommendations

Strengthening Trade Resilience in an Era of Uncertainty: Policy Priorities and Lessons from the GTRI and Real-World Country Experiences

Diversify Trade Links

Reduce over-reliance on any single trading partner or market. For governments, this means pursuing a variety of trade agreements and diplomatic ties so that exports and imports are spread across multiple countries. For businesses, it means developing a broader base of suppliers and customers. Diversification ensures that if one link breaks – due to conflict, sanctions, or disaster – alternative markets or sources can pick up the slack.

Invest in Infrastructure and Supply Chain Flexibility

Strengthen the physical and digital infrastructure that underpins trade. Modernize ports, transport networks, and storage facilities to handle surges or rerouted goods. Encourage the development of multiple transport corridors (road, rail, sea, air) to avoid bottlenecks. Companies should map out their supply chains in detail and establish backup logistics plans. Public-private partnerships can be useful: for example, governments might invest in strategic freight rail lines or broadband networks that make it easier for firms to adapt during disruptions.

Build Financial Safety Nets for Trade

Governments should ensure that financial tools like export credit agencies, trade insurance, and emergency lending facilities are in place to support exporters and importers during hard times. These can provide liquidity when banks become cautious and can insure shipments that might be riskier during conflict or crisis. Businesses, especially small and medium-sized ones, should take advantage of these tools and also maintain healthy cash reserves or credit lines as buffers. Having finance available on short notice can make the difference between fulfilling a contract or going bankrupt when external conditions tighten.

1.5 Key Takeaways and Policy Recommendations

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Strengthen Domestic Capacity and Skills

A strong domestic foundation makes the whole trade system more resilient. Policymakers should invest in education and training programs so the workforce can acquire new skills and transition between industries as demand shifts. Supporting innovation and R&D will help domestic firms develop alternatives if imports are cut off (for instance, encouraging local production of previously imported components). Businesses should cross-train employees and adopt technologies that allow flexible manufacturing. A country with capable human capital and innovative companies can adapt far faster to shocks and even turn them into opportunities

Enhance Policy Agility and Coordination

Governments need flexible, forward-looking trade policies and crisis protocols. This means having plans on the shelf for various scenarios (such as a sudden commodity shortage or a partner country's market crash) and the legal tools ready to implement them. It also means coordinating with international allies by, for example, sharing information on supply risks or aligning emergency tariff reductions on critical goods. Policymakers should strengthen relationships with multilateral organizations and engage in regional forums to craft collective responses to global disruptions. When a crisis hits, quick and coordinated policy action can prevent panic and keep trade flowing. Businesses, on their side, should maintain active dialogue with policymakers and industry groups to inform these plans and make sure their concerns are heard

1.5 Key Takeaways and Policy Recommendations

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Secure Critical Inputs and Promote Self-Reliance

(Where Sensible): Identify which imported commodities or components are mission-critical for the economy (such as energy supplies, food staples, medical supplies, or key high-tech parts). Develop strategies to secure these, which could include maintaining strategic stockpiles, diversifying import sources across different regions, or incentivizing some domestic production or substitutes for these items. Total self-sufficiency is unrealistic for most products, but smart self-reliance means a country is not at the mercy of one foreign supplier for its basic needs. Businesses in sensitive sectors should consider qualifying multiple suppliers (including local ones if available) and keeping some inventory on hand, even if it means extra cost: it is an insurance policy against disruption.

Foster International Cooperation for Resilience

Finally, even as each country and company shores up its own defenses, global cooperation remains crucial. Transnational challenges like pandemics or climate-related disasters do not respect borders, and neither do the supply chain disruptions they cause. Policymakers should work together on setting baseline rules for keeping trade open during emergencies for instance, agreeing not to ban food exports in a famine or not to hoard vaccines during a pandemic, so that every region can get through the crisis. Strengthening institutions and agreements that facilitate trade (from the WTO to regional pacts) will create a more predictable environment for commerce. Businesses can support these efforts by sharing best practices in risk management and advocating for stable, fair-trade rules. **Resilience is a collective endeavor**: no nation or company can achieve it entirely alone.

1.6 Embedding Resilience: From Concept to Measurement

The message is unmistakable: trade resilience isn't just possible, it's essential. Countries and companies that embed resilience into their trade systems today will weather tomorrow's disruptions far better than those that wait to react. In a world where economic shocks are increasingly frequent, proactive preparation is the difference between stability and chaos.

For policymakers and business leaders, investing in resilience should not be seen as a cost, but as strategic insurance and a source of long-term competitive advantage. A resilient trade system keeps factories running, workers employed, and goods moving even when others stumble.

Those who prepare won't just survive; they'll seize opportunities like stepping in to fill supply gaps that catch unprepared rivals off guard.

The building blocks of trade resilience are now well understood: diversified partnerships, robust infrastructure, agile policies, and a skilled workforce. But how do these factors translate into measurable performance across countries?

To answer that, the next section introduces the Global Trade Resilience Index (GTRI), developed by Whiteshield and now in its second edition. This index evaluates countries based on their ability to absorb shocks, adapt to disruptions, and sustain trade flows under pressure. Drawing from a rich set of economic, structural, and institutional data, the GTRI provides a clear, comparative view of national resilience, highlighting who's leading, who's lagging, and where there's room for improvement.

As we move from principles to practice, the GTRI offers a powerful lens for understanding how economies are preparing for the next wave of global trade challenges, and which ones are most ready to turn volatility into opportunity.

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Section 2
GTRI Methodology and Framework

2.1 Introduction to the GTRI

International trade remains a foundational pillar of global economic activity, serving as a powerful engine for efficiency, growth, and development. However, trade **also acts as a key channel for transmitting systemic shocks,** ranging from supply chain disruptions and geopolitical tensions to climate-related disasters and sudden economic crises (see Figure 3)

In the context of mounting geopolitical risks and the proliferation of protectionist policies, the imperative to bolster trade resilience is more urgent than ever.

Recent global events have functioned both as stress tests and catalysts for change, exposing long-standing vulnerabilities in the global trade system while simultaneously revealing institutional and operational strengths. In such an increasingly volatile environment, it is essential not only to protect existing trade relationships but also to enhance the capacity of national economies to adapt quickly and effectively to emerging disruptions.

2.2 Overview of The GTRI Framework

The Global Trade Resilience Index (GTRI) is a flagship initiative developed by Whiteshield, a global strategy and public policy advisory firm with links to the Harvard and OECD communities. The GTRI was conceived as a strategic tool to support countries in strengthening trade integration while mitigating exposure to external shocks.

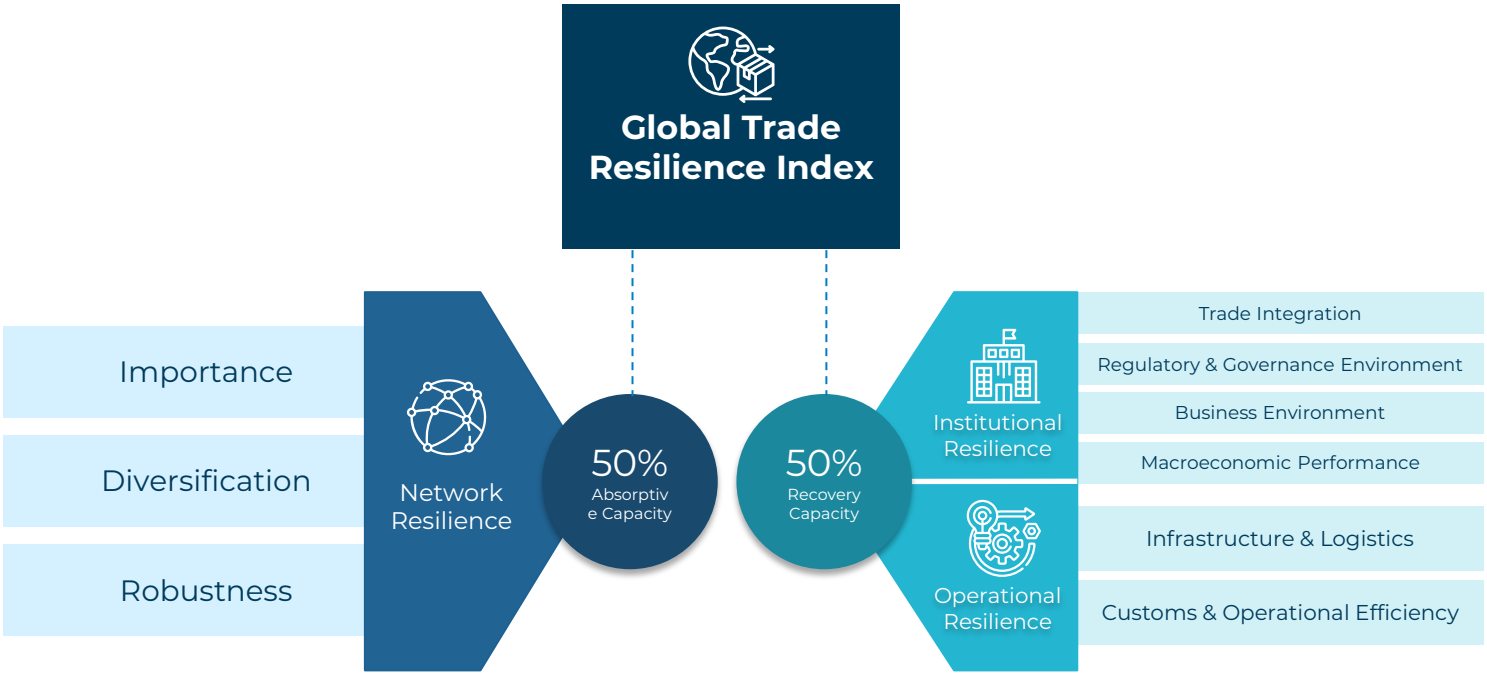
At its core, **GTRI provides a forward-looking, comprehensive assessment of trade resilience**, underpinned by a robust methodology.

The index draws on 58 distinct indicators, 16 from detailed trade data and 42 from globally recognized public data sources. Unlike conventional trade indices, GTRI incorporates advanced network theory and scenario simulations to assess how countries would perform under various types of trade disruptions.

The Global Trade Resilience Index (GTRI) assesses trade resilience across two primary dimensions (Figure 6):

1. **Absorptive Capacity;** it refers to a country's ability to withstand the immediate impacts of external shocks while maintaining stability in trade operations during the initial phase of disruption.
2. **Recovery Capacity:** it denotes a country's ability to restore trade performance and effectively adapt to altered conditions in the short- to medium-term following a disruption.

Figure 6: GTRI Framework



Source: Whiteshield

2.2 Overview of The GTRI Framework

Absorptive Capacity captures the agility and structural strength of a country's trade system in the face of abrupt disruptions such as new tariffs, demand imbalances, or logistical challenges. This dimension is measured through the **Network Resilience pillar**, which applies network theory to global trade data to evaluate how well a country is integrated into global product flows and how robust that integration is to localized or systemic shocks.

Recovery Capacity is further assessed through two additional pillars:

- **Institutional Resilience:** it evaluates governance effectiveness, regulatory quality, macroeconomic fundamentals, and openness to trade. It relies on internationally comparable datasets to assess the institutional foundations necessary for effective recovery.
- **Operational Resilience:** it evaluates infrastructure quality, logistics capabilities, and customs efficiency, practical determinants of how well a country can resume and scale up trade operations following disruption.

Together, these pillars offer a multidimensional perspective on both a country's exposure to trade risks and its capacity to manage them.

GTRI serves as a diagnostic and benchmarking tool, enabling policymakers and businesses to identify specific vulnerabilities and prioritize targeted reforms whether in infrastructure, institutional quality, or trade diversification.

Innovations in Trade Resilience Measurement

One of the most distinctive features of the GTRI is the **Network Resilience** pillar, which **employs graph theory** and advanced analytics to map and assess the countries positioning in 96 HS 2-digit global trade networks. This approach emphasizes three critical components:

- **Importance:** Measures a country's influence within global trade networks, assessing centrality and its capacity to attract stable trade relationships.
- **Diversification:** Evaluates the breadth of trade partners and products, highlighting the flexibility to redirect trade flows in response to shocks.
- **Robustness:** Simulates trade disruptions such as partner-specific shocks or route closures, to determine how resilient a country's network is under stress. These indicators collectively provide a granular understanding of a country's ability to sustain trade flows amid changing global conditions.

The detailed GTRI methodology is described in Appendix A infographics

2.3 Modeling a U.S. Trade Shock Scenario

This year, **the Global Trade Resilience Index (GTRI) is presented in two distinct versions,** each reflecting a specific trade disruption scenario. The **"Baseline" GTRI** measures countries' resilience to a broad spectrum of potential global trade shocks. In contrast, the **"U.S. Shock Scenario"** GTRI models a scenario in which the United States becomes effectively isolated from global trade networks, a dramatic but conceivable outcome in light of the U.S. reciprocal tariff policy announced in April 2025.

The only **methodological divergence** between the two versions of the GTRI lies within the **Network Resilience pillar**. In the U.S. Shock-Specific version:

- The 'Importance' and "Diversification" indicators are recalculated under a simulated scenario in which all trade flows involving the United States are removed, thereby modeling a comprehensive U.S. withdrawal from global trade.
- The 'Robustness' metric evaluates each country's vulnerability to the loss of its trade connectivity with the United States, as well as the broader systemic impacts of a full U.S. exit from international trade networks.

This tailored version of the GTRI captures the growing importance of U.S. trade policy developments, particularly the destabilizing potential of its reciprocal tariff initiative. This approach helps in **identifying economies that are especially vulnerable to,** or relatively insulated from, **US-induced trade shocks.** By comparing the results of the Baseline and U.S. Shock Scenario GTRI, **policymakers and analysts can better assess which countries, while generally resilient, may face elevated exposure due to United States tariff actions, as well as those positioned to benefit from shifts in global trade dynamics resulting from U.S. isolation**.

The detailed methodology of U.S. shock scenario GTRI can be found on Appendix B infographics.

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Section 3
GTRI 2025 Rankings and Insights

3.1 GTRI 2025: Country Rankings Overview

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Table 1. GTRI 2025 Scores and Ranks

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Germany	89.22	45	Canada	60.33	89	Azerbaijan	39.95
2	Netherlands	85.52	46	Morocco	60.15	90	Cambodia	39.12
3	USA	85.03	47	Brazil	60.10	91	Armenia	39.05
4	Singapore	83.56	48	Indonesia	59.41	92	Honduras	37.45
5	France	83.41	49	Slovenia	57.14	93	Jamaica	37.45
6	UK	82.94	50	Cyprus	56.77	94	Bolivia	36.55
7	Italy	82.78	51	Iceland	56.63	95	Maldives	36.13
8	China	81.92	52	Malta	55.29	96	Nigeria	35.75
9	Switzerland	81.70	53	Chile	54.15	97	Nicaragua	35.70
10	Japan	80.96	54	Serbia	54.04	98	Trinidad & Tobago	35.39
11	Spain	80.95	55	Egypt	53.46	99	Namibia	35.03
12	Belgium	80.54	56	Philippines	53.27	100	Botswana	34.56
13	Sweden	79.80	57	B&H	52.91	101	Madagascar	34.26
14	Korea	76.96	58	Mexico	52.82	102	Malawi	33.69
15	Denmark	75.09	59	Ukraine	52.10	103	Paraguay	33.64
16	Finland	73.74	60	Argentina	51.91	104	Belarus	31.93
17	Austria	73.57	61	Russia	51.81	105	Uzbekistan	31.84
18	Malaysia	72.55	62	Colombia	51.73	106	Mozambique	31.69
19	Poland	72.47	63	Uruguay	51.71	107	Tanzania	31.63
20	UAE	70.48	64	Kuwait	50.21	108	Benin	31.23
21	Norway	70.34	65	Tunisia	49.24	109	Guyana	31.12
22	Ireland	69.34	66	Oman	49.08	110	Ethiopia	31.07
23	Thailand	68.31	67	Mauritius	48.73	111	Myanmar	30.82
24	Greece	68.29	68	Bahrain	48.69	112	Fiji	30.45
25	Turkey	67.99	69	Peru	48.16	113	Zambia	30.43
26	Portugal	67.74	70	Sri Lanka	48.05	114	Angola	29.45
27	Israel	66.77	71	Costa Rica	47.47	115	Swaziland	24.46
28	India	66.77	72	Panama	46.65	116	Belize	24.32
29	Czechia	66.73	73	Jordan	46.59	117	Samoa	24.20
30	Australia	66.13	74	Ecuador	45.84	118	Laos	24.12
31	Hungary	65.37	75	North Macedonia	45.66	119	Kyrgyzstan	24.04
32	Lithuania	65.29	76	Kazakhstan	45.48	120	Lesotho	23.93
33	Slovakia	65.20	77	Pakistan	45.45	121	Gambia	23.89
34	Estonia	64.96	78	Guatemala	44.40	122	Rwanda	23.15
35	New Zealand	64.58	79	Montenegro	44.28	123	Tajikistan	22.96
36	Luxembourg	64.15	80	Albania	44.03	124	Congo	22.14
37	Romania	63.23	81	El Salvador	43.51	125	Nepal	21.98
38	Croatia	63.10	82	Georgia	42.65	126	Zimbabwe	21.24
39	South Africa	63.06	83	Lebanon	42.42	127	Mongolia	20.60
40	Bulgaria	61.64	84	Moldova	41.95	128	Niger	19.81
41	Vietnam	60.99	85	Senegal	41.66	129	Togo	18.79
42	Latvia	60.77	86	Dominican Republic	40.77	130	Suriname	17.48
43	Saudi Arabia	60.62	87	Kenya	40.46	131	Burundi	14.53
44	Qatar	60.48	88	Brunei	40.43	132	Burkina Faso	14.07

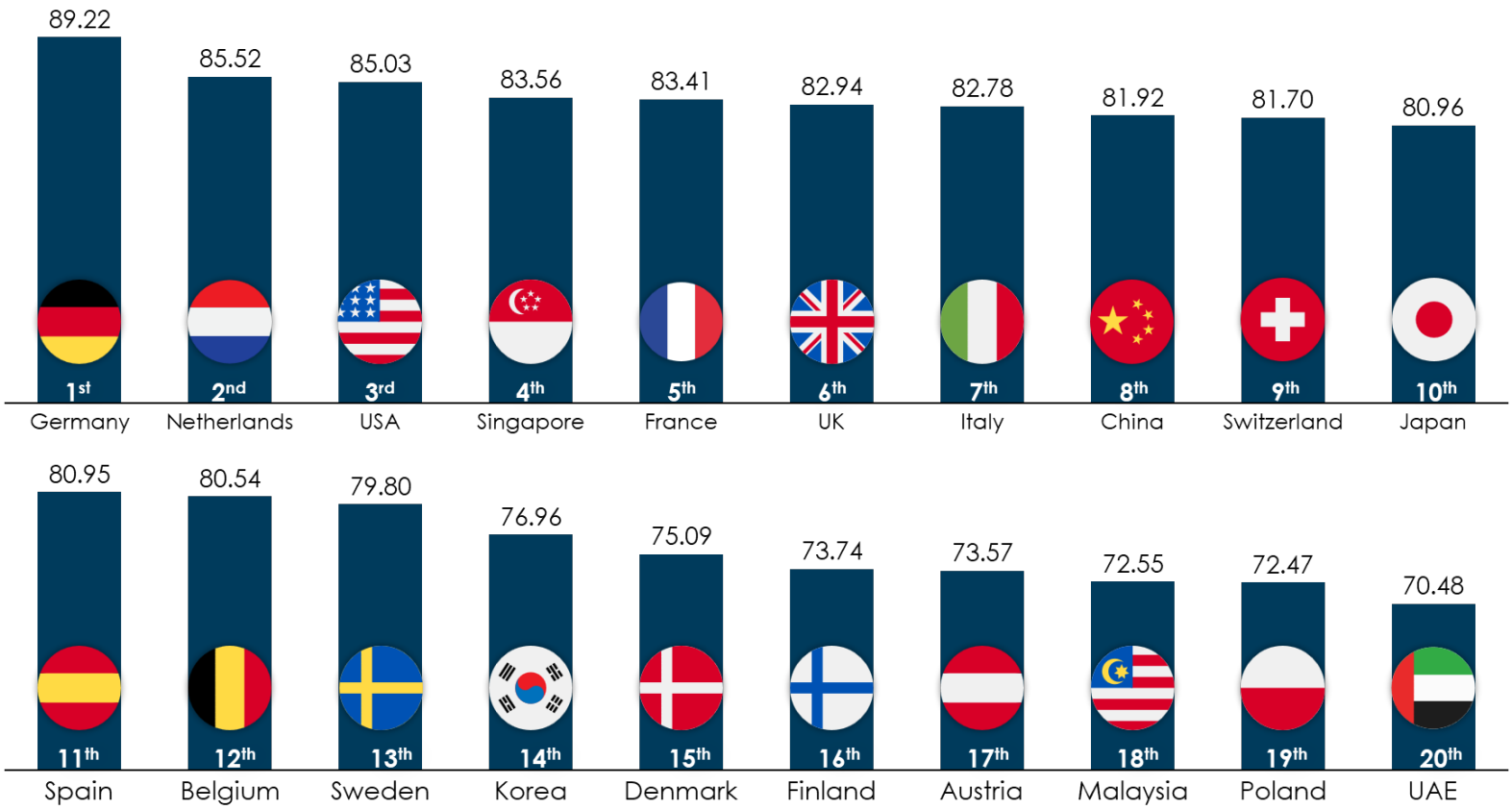
Source: Whiteshield

3.2 Overview of the Top 20 Ranked Countries

The 2025 Global Trade Resilience Index (GTRI) continues to highlight the resilience strengths of advanced economies, with Germany, the Netherlands, and the United States maintaining their top positions since the first edition. The index assesses countries on their ability to absorb and recover from trade-related shocks, drawing on measures of network structure such as importance and diversification, along with indicators of institutional and operational strengths and the quality of infrastructure.

The **top five performers** in the 2025 Global Trade Resilience Index – Germany, the Netherlands, the United States, Singapore, and France, **demonstrate a common foundation of structural strengths that underpin their trade resilience**. Each country excels not just through strong exports or large markets, but through a combination of infrastructure, institutional capacity, digital innovation, and integration into global and regional networks (Figure 7).

Figure 7. Top 20 Performers in the GTRI 2025



Source: Whiteshield

3.2 Overview of the Top 20 Ranked Countries

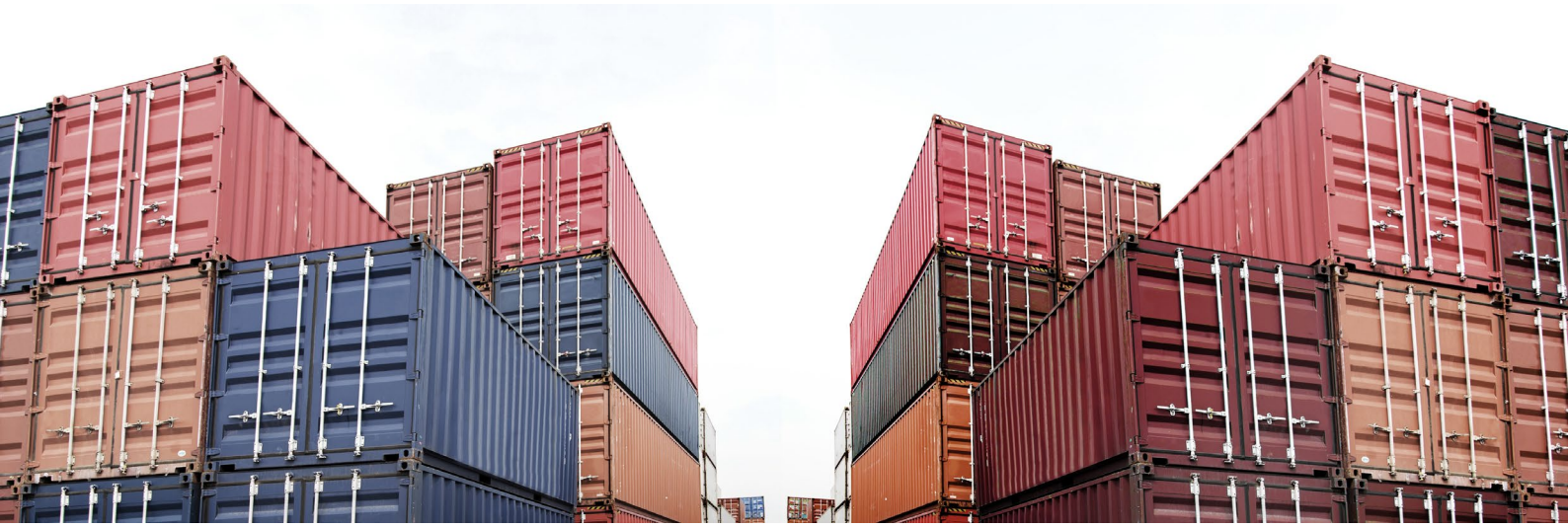
Germany leads through its manufacturing complexity and deep integration into European value chains, supported by world-class logistics and transparent, adaptive institutions. The Netherlands excels as a critical logistics hub for Europe, with unmatched port and airport infrastructure, cutting-edge customs digitalization, and a robust regulatory environment that facilitates smooth trade flows. The United States benefits from its vast economic scale and sectoral diversity, high innovation capacity, and ability to implement agile policy responses during crises. Singapore combines strategic location with advanced digital trade infrastructure and policy agility, positioning itself as a central node in global supply chains. France rounds out the top five by leveraging strong institutions, high-value exports, integration within the EU's single market, and a long-term commitment to sustainable and green logistics development.

Together, these countries illustrate that trade resilience is not the product of any single factor, but the result of a cohesive and adaptive system where infrastructure, governance, and innovation align to ensure continuity and competitiveness in the face of global shocks.

European countries account for 65% of the top 20, a testament to the continent's institutional maturity, integrated trade frameworks, and robust infrastructure. Notably, **East Asia claims another 25%,** with Singapore, China and Japan securing spots in the top 10, while South Korea and Malaysia appear in the second tier of the leaderboard. These results reflect the region's efficient supply chains, investment in digital trade infrastructure, and strong policy responses to external shocks.

A standout performer from the Middle East and North Africa (MENA) region is the **United Arab Emirates, which ranks among the top 20.** The UAE's placement reflects strategic investments in logistics, trade facilitation, and diversification of export partners, positioning it as a regional trade hub.

Only two countries in the GTRI top 20 (China and Malaysia) **are classified as upper-middle-income economies,** while the remaining top-ranked nations are all high-income countries.



3.3 Profiles of the Top 5 Resilient Economies Germany, Rank 1

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Trade Complexity

Germany leads globally in the production and export of high-value goods such as automobiles, industrial machinery, chemicals, and precision instruments, overall being ranked 4 in economic complexity index. Its manufacturing excellence is rooted in decades of engineering tradition, intensive R&D investment, and a dense network of specialized SMEs ("Mittelstand"), which together form a highly resilient and diversified export base.

Network Centrality

Being ranked second in Importance, Germany is positioned as a critical node in both global and European value chains, Germany benefits from deep integration into manufacturing and logistics networks across the continent. Its central geographic position in Europe, paired with an extensive freight rail and road network, ensures seamless intra-regional trade flow, making it indispensable in regional supply chains.

Diversification

Germany is ranked first in diversification and maintains a wide-ranging portfolio of trade partners, including both developed and emerging markets. This diversification mitigates dependency risks, allowing for economic stability even when certain trade corridors experience disruption.

Institutional Quality

Germany's regulatory and institutional framework is characterized by transparency, efficiency, and legal certainty, leading to the rank 9 in the Institutional resilience pillar. Strong public institutions enable favourable business environment and effective implementation of trade policies and long-term industrial strategies, while collaboration between government, industry, and labour unions enhances adaptability.

Infrastructure

The country boasts one of the most advanced transport infrastructures in the world (ranked 6th), featuring interconnected road, rail, river, and port systems. Facilities like the Port of Hamburg and Frankfurt Airport are key international gateways, supporting rapid and reliable cargo movement.

Labour Market Flexibility

Germany's dual vocational training system and coordinated wage-setting foster a highly skilled and adaptable workforce. These systems allow industries to quickly respond to demand shifts without significant labor market friction.

Digitalization

Germany has made major strides in digitizing customs and trade facilitation services. Initiatives like "Digital Now" and Industry 4.0 support the integration of AI, IoT, and robotics into supply chains, enhancing both productivity and responsiveness.

3.3 Profiles of the Top 5 Resilient Economies The Netherlands, Rank 2

WHITESHIELD

Trade Complexity

Despite its relatively small size, the Netherlands has built a trade profile centered on re-exports and specialization in high-value goods and services, including electronics, agri-food technology, and pharmaceuticals. Its ability to add value through logistics and processing makes it an essential partner in global trade flows

Network Centrality

Being ranked 8th in Importance, the Netherlands serves as a critical transit hub within Europe, functioning as a primary entry and exit point for EU-bound goods. Its embeddedness in EU supply chains increases its relevance and resilience to global trade shocks.

Diversifica-tion

The Netherlands maintains a well-balanced trade portfolio, combining strong original exports with extensive re-export activity across a wide range of sectors, including agri-food, electronics, and pharmaceuticals. Its broad network of trade partners, from the EU and U.S. to emerging markets, helps reduce dependency on any single region or sector, enhancing resilience to global trade disruptions.

Institu-tional Quality

A highly effective governance framework (ranked 7th), characterized by low corruption, strong rule of law, and predictable regulation, creates a business-friendly environment (ranked 8th). Dutch institutions also excel in public-private coordination, especially in logistics and innovation policy.

Infra-structure

The Netherlands is globally recognized for its unmatched logistics capabilities (ranked 4th in the corresponding sub-pillar). The Port of Rotterdam, the largest in Europe and Schiphol Airport form the core of a sophisticated intermodal transport network that ensures the efficient movement of goods across Europe and beyond. Its “gateway” function supports rapid connectivity with global markets.

Labour Market Flexibility

A dynamic labour force with high participation rates, flexible contracts, and an emphasis on lifelong learning supports economic adaptability. Dutch policies promote work-life balance and active labour market participation, ensuring workforce stability even in times of change.

Digitaliza-tion

The Netherlands is ranked 4th in Operational resilience and leads in smart logistics and customs digitalization, leveraging technologies like blockchain and AI to streamline trade procedures. Initiatives such as PortBase enable real-time coordination across logistics actors, reducing friction and enhancing competitiveness.

3.3 Profiles of the Top 5 Resilient Economies
The United States, Rank 3

WHITESHIELD

Trade Complexity

The U.S. is a global leader in high-tech exports, including aerospace, semiconductors, digital services, and pharmaceuticals. This complexity not only drives value creation but also reflects a strong innovation ecosystem that continually evolves to meet global demand.

Network Centrality

The United States plays a pivotal role in global trade networks due to its extensive bilateral trade relationships and integration into key regional agreements such as USMCA. Its geographic reach, spanning both Atlantic and Pacific trade routes, positions it as a bridge between major global markets. This centrality supports influence over global supply chains and enhances trade continuity amid shifting dynamics.

Diversifica-tion

The sheer size (ranked 4th) and diversity of the U.S. economy offer inherent trade resilience. Its large domestic market insulates it from external demand shocks, while sectoral diversity from tech and finance to agriculture and energy provides multiple growth engines.

Institu-tional Quality

The U.S. federal government has consistently demonstrated the capacity to implement large-scale fiscal and monetary interventions in response to major economic shocks, including the 2008 global financial crisis, supply chain disruptions, and recent inflationary pressures.

Infra-structure

With a vast network of highways, ports, and airports, the U.S. ensures efficient trade logistics across its expansive geography (ranked 5th in operational efficiency). Ports like Los Angeles, Long Beach, and Savannah are among the busiest in the world and serve as vital links in global supply chains.

Labour Market Flexibility

The U.S. labor market is among the most flexible globally, characterized by high job mobility, entrepreneurial dynamism, and the ability to quickly redeploy talent across sectors. The presence of world-class universities and tech hubs supports continuous upskilling.

Digitaliza-tion

The U.S.is home to many of the world's leading tech companies and digital platforms, providing cutting-edge solutions for e-commerce, logistics, and cybersecurity. Initiatives like the National Freight Strategic Plan emphasize the integration of digital tools in infrastructure planning and operations.

3.3 Profiles of the Top 5 Resilient Economies Singapore, Rank 4

WHITESHIELD

Trade Complexity

Although small in size, Singapore has a highly diversified and complex trade portfolio with a strong focus on high-value sectors like electronics, pharmaceuticals, and financial services (ranked 5th in economic complexity). This complexity helps buffer against sector-specific trade shocks..

Network Centrality

As a major global logistics and maritime hub, Singapore connects major trade routes between the East and West. Its strategic location makes it an essential node in global supply chains, similar to Germany's and the Netherlands' positioning in Europe.

Diversifica-tion

Singapore maintains a highly diversified trade portfolio, with strong exports in electronics, pharmaceuticals, petrochemicals, and financial services. This breadth reduces reliance on any single sector or market, enhancing its ability to withstand trade disruptions and adapt to global shifts.

Institu-tional Quality

Singapore's governance is highly efficient, transparent, and responsive. Its policy agility, demonstrated through rapid trade facilitation measures and regulatory innovation, enables it to adapt quickly to shocks such as global pandemics or supply chain disruptions. Singapore is also succeeded of embed in global integration being ranked 2nd in this field.

Infras-tructure

With world-class port (PSA) and airport (Changi) facilities, Singapore supports high-volume and high-value trade flows with minimal delays being world leader in infrastructure & logistics connectivity. These are critical assets that underpin its resilience, much like the Port of Rotterdam and Schiphol Airport in the Netherlands.

Labour Market Flexibility

Singapore’s labor market is characterized by high adaptability, strong emphasis on skills upgrading, and a proactive workforce development strategy. Government initiatives such as SkillsFuture support continuous learning and redeployment of talent, enabling businesses to respond swiftly to economic changes and trade disruptions.

Digitaliza-tion

Singapore stands out globally for its advanced digital trade systems, being the best in Operational Resilience. These include paperless customs procedures, blockchain-enabled platforms, and AI-driven logistics systems. This enables real-time tracking, faster clearances, and reduced transaction costs, all key factors to maintaining continuity during disruptions.

3.3 Profiles of the Top 5 Resilient Economies France, Rank 5

WHITESHIELD

Trade Complexity

France has a competitive edge in high-value, knowledge-intensive exports such as aerospace (Airbus), luxury goods (LVMH), and pharmaceuticals. These sectors typically show more pricing power and less volatility in global demand.

Network Centrality

France's deep integration within the European Union's single market provides access to harmonized standards, robust intra-European logistics networks, and policy support. This integration, along with one of the highest levels of trade diversification globally (ranked 3rd), strengthens resilience by fostering intra-regional trade and reducing reliance on distant or volatile markets.

Diversification

France maintains a diverse export base (ranked 3rd), spanning aerospace, luxury goods, pharmaceuticals, and agri-food products. This sectoral breadth, combined with a wide geographic spread of trade partners, reduces exposure to demand volatility in any single market and enhances economic resilience.

Institutional Quality

France benefits from stable, well-developed institutions, which ensure effective implementation of trade and industrial policy. This aligns with GTRI's emphasis on governance quality and regulatory stability as core pillars of resilience.

Infrastructure

France boasts an advanced multimodal transport system, including high-speed rail, integrated road networks, and major ports like Le Havre and Marseille. These enhance connectivity across Europe and globally, enabling efficient goods movement even in turbulent times.

Labour Market Flexibility

France has undertaken structural reforms to increase labor market adaptability, including measures to ease hiring and incentivize workforce mobility. While traditionally more rigid than some peers, recent shifts, such as vocational training programs and flexible work arrangements, are improving responsiveness to market needs.

Digitalization

France is advancing digital trade capabilities through initiatives like the "France Num" program, which supports SME digital transformation. Efforts to digitize customs, logistics, and industrial processes are strengthening supply chain visibility and efficiency, contributing to greater resilience in international trade.

3.4 Regional Clusters of Trade Resilience

At the regional level, **countries can be broadly grouped into four performance clusters** based on their GTRI scores. While differences between clusters are significant, countries within each group tend to perform relatively consistently:

1. North America and Europe
2. Middle East & North Africa (MENA) and East Asia & Pacific
3. Central Asia, South Asia, and Latin America & the Caribbean
4. Sub-Saharan Africa

Despite being at the center of recent trade tensions, particularly due to the reciprocal tariff measures introduced by the United States, including higher tariffs imposed on Canada and Mexico, **North America emerges as the most resilient region** (Figure 8). This performance is largely attributed to the strength of the United States itself, which captures 14% of global import and ranked 3rd in GTRI. In contrast, **Canada** (45th) and **Mexico** (58th) demonstrate significantly lower resilience than the U.S. **and fall short of expectations** given their income levels.

Although **Europe** as a whole demonstrates a level of trade resilience comparable to North America, this **regional average masks significant internal variation.**

Nearly half of European nations rank in the global top 30, yet eight of the ten lowest-ranked European countries are in Eastern Europe, including Belarus, Moldova, and Albania. These countries have relatively limited connectivity, weaker governance, and underdeveloped infrastructure, making them more vulnerable to trade shocks. The findings underscore that regional averages can conceal localized vulnerabilities, emphasizing the **need for targeted resilience-building efforts in structurally weaker areas of Europe.**

East Asia & Pacific and the MENA region form the second cluster, performing well below the leading group. In **East Asia & Pacific,** seven out of 17 countries are within the top 30, though the region also includes three countries ranked below 100, **highlighting disparities. MENA countries are more evenly spread**, ranging from the UAE (20th) to Lebanon (83rd).

In South Asia, India (28th) stands out as a **regional leader**, while the remaining countries lag far behind. A similar dynamic is seen in **Central Asia, where Turkey** (25th) **outperforms others** in the region. In Latin America & the Caribbean, only five out of 22 countries are ranked in the top half of the index.

Sub-Saharan Africa constitutes the weakest-performing cluster. Only South Africa (39th) appears in the top half of the global ranking, while most countries in the region are ranked below 100, reflecting acute vulnerabilities in trade infrastructure, institutional capacity, and network positioning.

3.4 Regional Clusters of Trade Resilience

Figure 8. Regional GTRI 2025 Performance

Rank 1

NORTH AMERICA

3 countries
Average GTRI: 66.1
1st: USA (3rd)
2nd: Canada (45th)
3rd: Mexico (58th)

Rank 2

EUROPE

38 countries
Average GTRI: 65.7
1st : Germany (1st)
2nd : Netherlands(2nd)
3rd: France (5th)

Rank 3

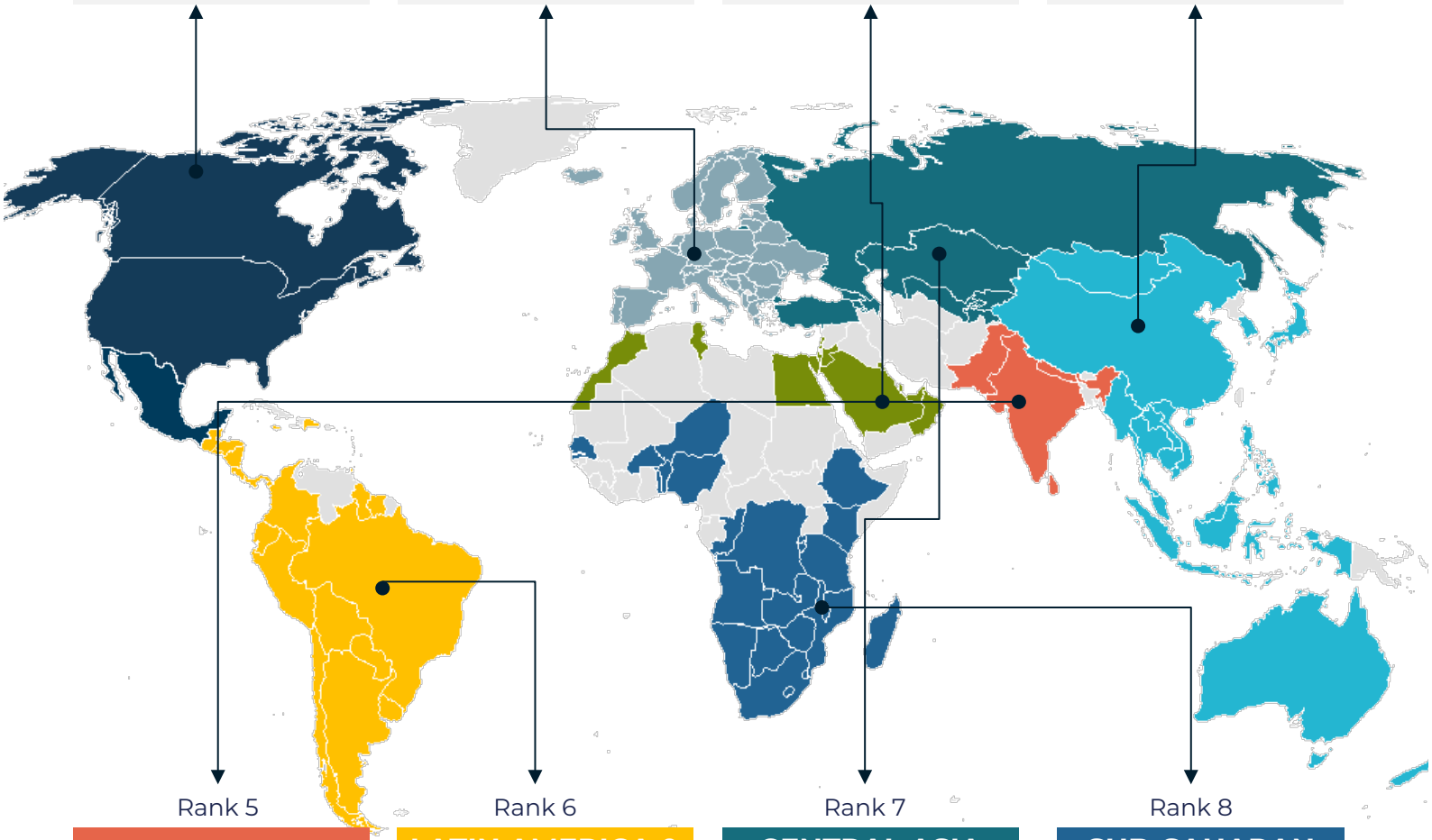
MIDDLE EAST & NORTH AFRICA

13 countries
Average GTRI: 54.9
1st: UAE(20th)
2nd: Israel (27th)
3rd: Saudi Arabia(43rd)

Rank 4

EAST ASIA & PACIFIC

18 countries
Average GTRI: 54.4
1st: Singapore (4th)
2nd:China (8th)
3rd:Japan (10th)



Rank 5

SOUTH ASIA

5 countries
Average GTRI: 43.6
1st: India (28th)
2nd: Sri Lanka (70th)
3rd: Pakistan (77th)

Rank 6

LATIN AMERICA & CARIBBEAN

21 countries
Average GTRI: 41.6
1st: Brazil (47th)
2nd: Chile (53rd)
3rd: Argentina (60th)

Rank 7

CENTRAL ASIA AND CAUCASUS

9 countries
Average GTRI: 40.6
1st: Turkey (25th)
2nd: Russia(61st)
3rd: Kazakhstan(76th)

Rank 8

SUB-SAHARAN AFRICA

25 countries
Average GTRI: 30.2
1st: South Africa (39th)
2nd: Mauritius (67th)
3rd: Senegal (85th)

Source: Whiteshield

3.5 Performance of Key Regional Trade Hubs

If we narrow down to the regional trade hubs, a clear hierarchy of resilience to trade shocks emerges: **Europe ranks as the most resilient, followed by East Asia, with North America in third place** (Figure 9).

Europe's leading position can be largely attributed to the largest number of countries included in the trade hub, each of which is highly resilient itself, and high degree of intraregional trade, which accounts for more than 60% of its total trade volume. This dense web of regional interdependence strengthens resilience by reducing reliance on external markets and enabling faster recovery through geographically and institutionally integrated supply chains. The presence of a single market, harmonized standards, and robust cross-border infrastructure also contribute to Europe's capacity to absorb and adapt to shocks effectively.

East Asia follows closely behind. Its resilience is strongly supported by advanced industrial economies such as Japan and South Korea, which have played a central role in shaping the region's dense production networks. These countries have increasingly outsourced stages of production to neighboring economies, fostering deep intraregional trade integration that now accounts for approximately half of the region's total trade volume.

The region's complex supply chains, particularly in electronics and manufacturing, are highly interconnected across countries such as China, Japan, South Korea, and ASEAN members. While East Asia lacks the formal institutional integration seen in Europe, its resilience is rooted in operational efficiency, strong network centrality, and high levels of trade complementarity among regional economies.

North America, by contrast, ranks only third among regional hubs despite being home to the world's largest economy, the United States. Unlike the European Union, which benefits from a deeply integrated common market with harmonized policies and shared institutions, North America is connected primarily through a free trade agreement (USMCA), which offers fewer mechanisms for economic coordination and resilience. The region's trade structure is also less diversified, with Canada and Mexico directing over 60% of their total trade toward the U.S., creating a high degree of dependency. This concentration exposes the region to heightened risk, even in the absence of immediate policy disruptions, as shocks to the U.S. economy can ripple disproportionately across its partners.

3.5 Performance of Key Regional Trade Hubs

The Gulf Cooperation Council (Saudi Arabia, the UAE, and Qatar), ranks fourth globally as a regional trade hub. This reflects the region's substantial investments in infrastructure, strategic trade corridors, and growing global connectivity. At the same time, the trade landscape remains shaped by a relatively high dependence on energy exports and a limited degree of sectoral diversification.

While regional initiatives have aimed to enhance economic integration, intra-GCC trade and policy coordination are still evolving. These factors, while not diminishing the region's progress, suggest that further diversification and institutional alignment will be key to strengthening the GCC's resilience to external trade shocks over time.

Figure 9. Average GTRI Score of Countries in Trade Hubs

Source: Whiteshield

Note: The trade hubs in this analysis include the following countries: North America: United States, Canada, Mexico; Europe: Germany, Netherlands, France, Belgium, Luxembourg, Ireland, Italy, Spain; East Asia: China, Japan, South Korea, Singapore, Malaysia, Thailand, Vietnam; Middle East: United Arab Emirates (UAE), Saudi Arabia, Qatar.

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Section 4
Stress Testing with the U.S. Shock Scenario

4.1 Impact of a Hypothetical U.S. Withdrawal from Global Trade

To evaluate the vulnerability of national trade networks to a major external disruption, a targeted simulation was conducted to model the potential impact of a **hypothetical scenario in which the United States withdraws from global trade**. This analysis reflects the possible consequences of escalating protectionist policies and assesses countries' resilience to a sudden and complete severance of trade relations with the world's largest economy. The simulation specifically focuses on the Absorptive Capacity component of the GTRI, which measures a country's ability to withstand and adapt to immediate trade shocks.

The simulated outcomes of this US-specific stress test are illustrated in Figure 10 and fully disclosed in Appendix C. Among the key findings, **Germany and the Netherlands retain their top positions,** reflecting their diversified export structures and limited overreliance on U.S. trade. Their resilience in this alternate scenario confirms the robustness of their network embeddedness and institutional trade strategies.

In contrast, **several countries experienced marked declines in their network resilience rankings.** The United Kingdom fell from 6th to 10th, China from 8th to 14th, Japan from 10th to 12th, and Finland from 16th to 18st.

These shifts indicate a comparatively higher dependence on U.S. trade flows or structural vulnerabilities within their global trade configurations.

Conversely, the scenario revealed that **many European economies would benefit in relative terms.** Notable upward shifts in GTRI rankings were observed for Austria (17th to 9th), Poland (19th to 13th), Spain (11th to 6th), and Belgium (12th to 7th).

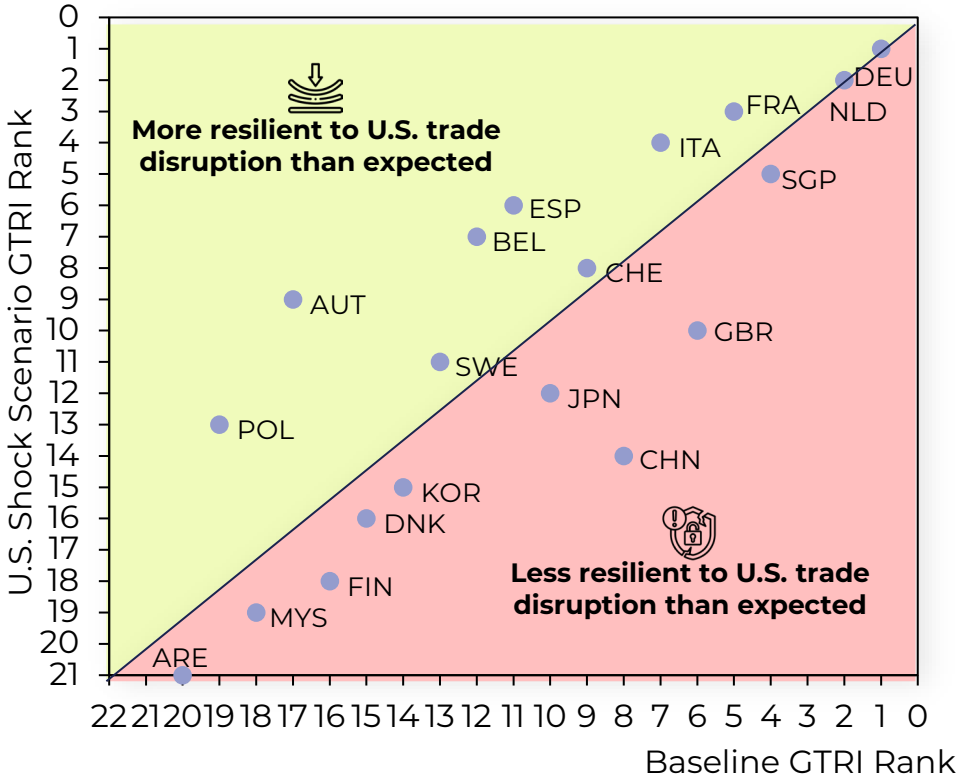
These gains reflect the **strength of intra-European trade integration and the relative insulation of the European trade network from U.S. -centric dependencies.**

Overall, the findings underscore the strategic importance of trade diversification, regional economic integration, and resilient network design in mitigating exposure to externally driven shocks. The results provide evidence that **countries embedded in well-connected, multilateral trade systems are better positioned to absorb geopolitical or policy-induced disruptions.**

The simulation of a hypothetical U.S. trade withdrawal offers important insights into the vulnerability and preparedness of national economies in the face of a major trade network disruption. By modeling the abrupt severance of trade ties with the United States – the world's largest economy, the scenario captures the potential fallout from a sharp escalation in U.S. protectionist policies.

4.1 Impact of a Hypothetical U.S. Withdrawal from Global Trade

Figure 10. Top 20 Countries in the Baseline GTRI vs U.S. Shock Scenario GTRI Rank



Source: Whiteshield

Such a disruption would not only affect direct trade flows with the U.S., but also ripple through global supply chains, exposing how dependent countries are on U.S. - linked trade routes, inputs, and demand.

The simulation helps identify which countries possess the absorptive capacity to withstand such a shock through diversified trade portfolios, flexible policy environments, and resilient infrastructure, and which are more exposed due to concentrated trade relationships or structural dependencies. This targeted stress test underscores the broader importance of network diversification and adaptability in safeguarding trade resilience. A detailed comparison of the Absorptive Capacity pillar results under both the baselinescenario and the U.S. Shock Scenario can be found in Appendix C. The results show that countries with lower dependence on U.S. trade demonstrate stronger resilience under the U.S. Shock Scenario compared to more generalized global disruptions. This **underscores the protective advantage of diversified trade relationships and robust regional integration**. Austria, for instance, benefits the most among European economies in this scenario, thanks to its well-balanced trade ties and deep integration within the European Union.

4.2 Country-Level Shifts in Network Resilience

Figure 11. Top Countries from Top-20 GTRI Most Gaining and Loosing in the U.S. Shock Scenario

More Resilient in the U.S. Shock Scenario

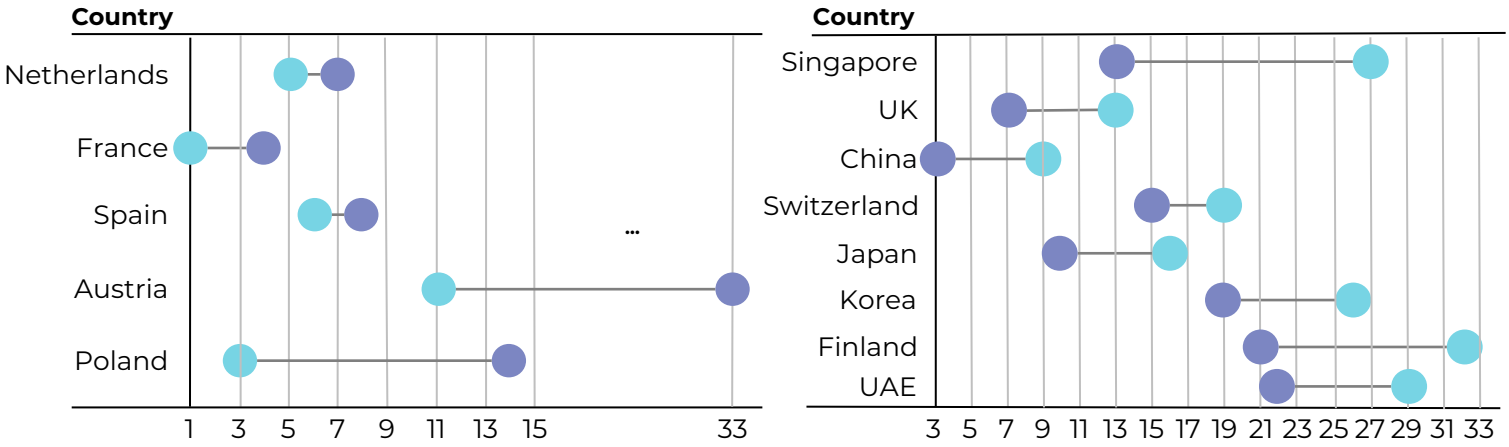
Baseline Network Resilience Ranking

U.S. Shock Scenario Network Resilience Ranking

More Vulnerable in the U.S. Shock Scenario

Baseline Network Resilience Ranking

U.S. Shock Scenario Network Resilience Ranking



Source: Whiteshield

These findings highlight the strategic value of maintaining flexible, regionally anchored, and diversified trade portfolios to reduce vulnerability to asymmetric shocks (Figure 11). Conversely, several leading economies in the baseline GTRI ranking appear significantly more vulnerable when exposed to a U.S. Shock Scenario. These include East Asian economies such as Singapore, China, and South Korea, which are closely embedded in global value chains with the U.S., as well as European countries like the United Kingdom and Finland that maintain substantial transatlantic trade ties. Additionally, trade-reliant hubs like the United Arab Emirates face elevated risk due to their dependence on large external markets, particularly the U.S.

These patterns underscore how even globally competitive economies can become exposed when network centrality is paired with concentrated trade relationships.

Figure 12 illustrates the divergence in rankings between the baseline GTRI and U.S. shock scenarios across the top and bottom halves of the GTRI. As expected, **highly ranked countries under the baseline methodology tend to experience more substantial rank declines**, reflecting their structural exposure to U.S. trade. In contrast, **lower-ranked countries, many of which have weaker ties to the U.S., exhibit relative improvements, largely because they suffer smaller absolute losses in network connectivity.**

4.2 Country-Level Shifts in Network Resilience

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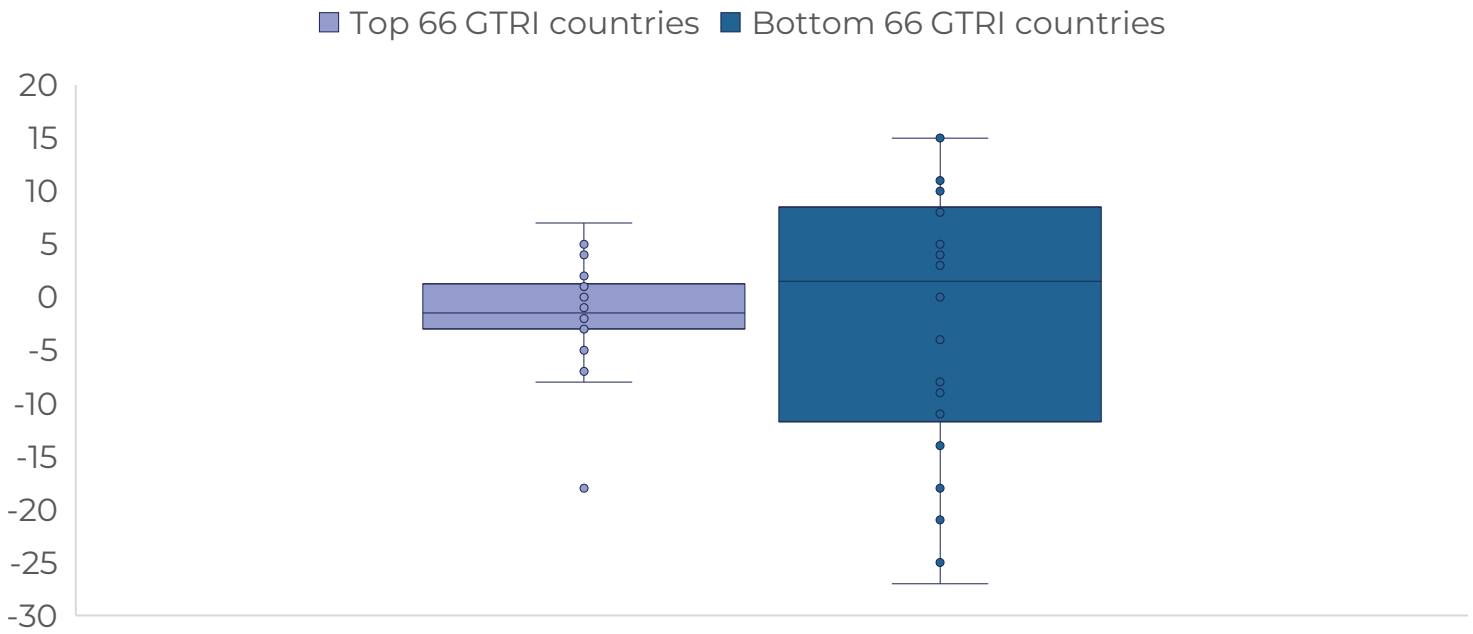
Figure 12. GTRI Countries Ranks Difference Between the Baseline and U.S. Shock Scenario for Top-66 (Most Resilient) vs. Bottom-66 (Least Resilient).



Source: Whiteshield
Note: Horizontal lines are the group average rank differences

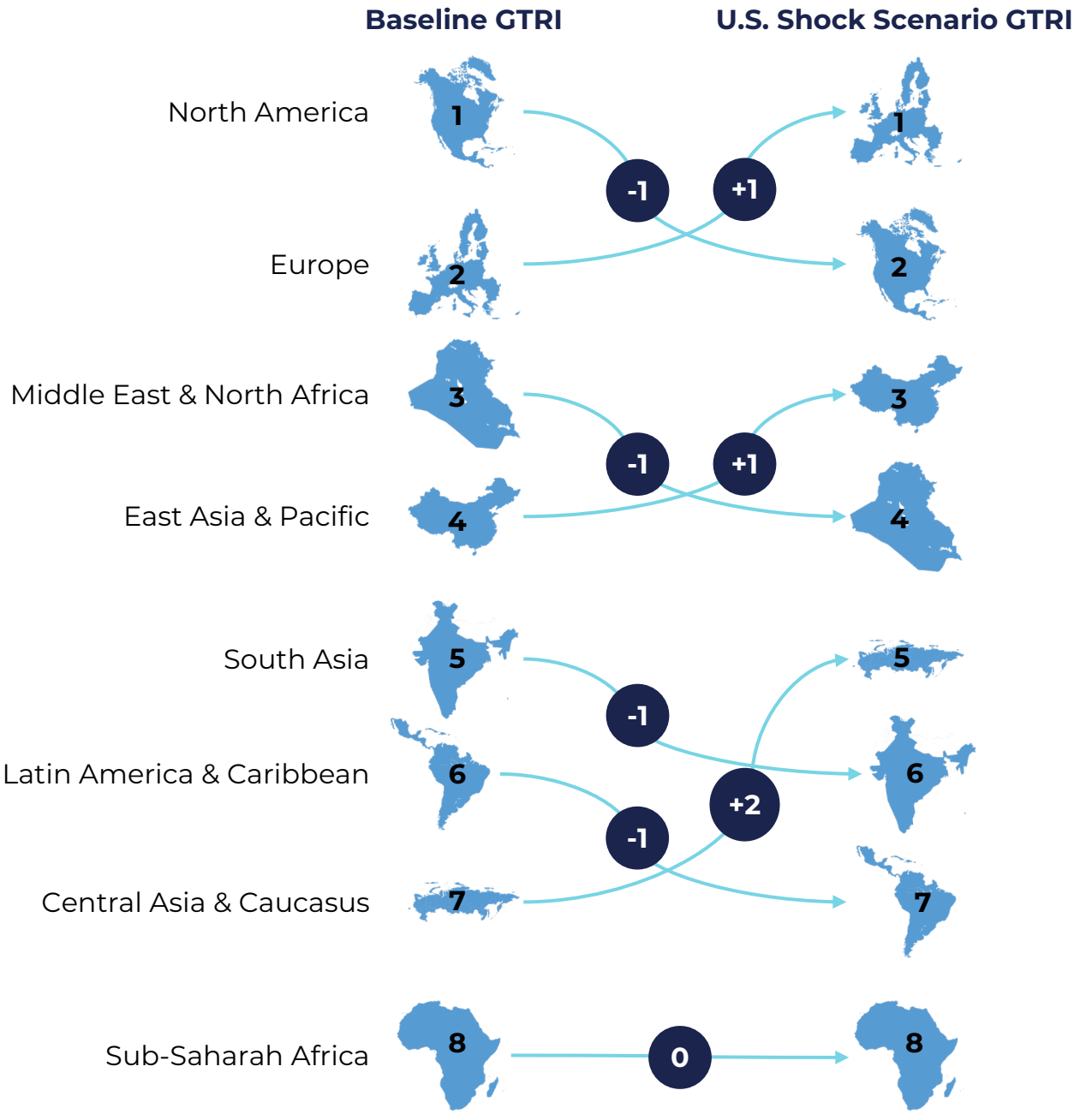
Importantly, this analysis also highlights a **dual vulnerability**. While **low-ranked countries may show improved relative rankings, they remain more volatile and sensitive to shock type**. Their overall structural fragility limits their capacity to absorb new disruptions, even when less affected by a U.S.-centered shock. Conversely, higher-ranked countries, although negatively impacted, tend to maintain more stable performance due to their diversified and institutionalized trade systems.

4.3 Regional Impacts of the U.S. Shock

At the regional level, Europe surpasses North America in the U.S. Shock Scenario GTRI, reflecting the former's strong intra-regional trade dynamics and relative independence from U.S.-centric supply chains. East Asia & Pacific and Central Asia & Caucasus also improve their rankings, bolstered by diversified trade flows and reduced U.S. exposure. Central Asia, in particular, benefits from deepening ties with Eurasian and Asian partners.

In contrast, North America, MENA, South Asia, and Latin America & the Caribbean register relative declines, underscoring their exposure to U.S. policy fluctuations. Sub-Saharan Africa maintains its position at the bottom, reinforcing persistent structural constraints that transcend individual shock scenarios (Figure 13).

Figure 13. Regional Shifts of GTRI Ranking in the U.S. Shock Scenario GTRI Comparing to the Baseline



Source: Whiteshield

4.4 Absorptive Capacity vs. Tariff Exposure

Countries with higher absorptive capacity are generally better equipped to endure targeted trade policy shocks, such as abrupt tariff hikes or other protectionist measures. To examine this relationship, we compared GTRI absorptive capacity scores with projections from the Whiteshield Trade Navigator, which estimate expected export changes for the top 20 countries trading with the U.S. under a scenario where reciprocal tariffs announced by the U.S., along with anticipated retaliatory measures from trading partners, are fully implemented.

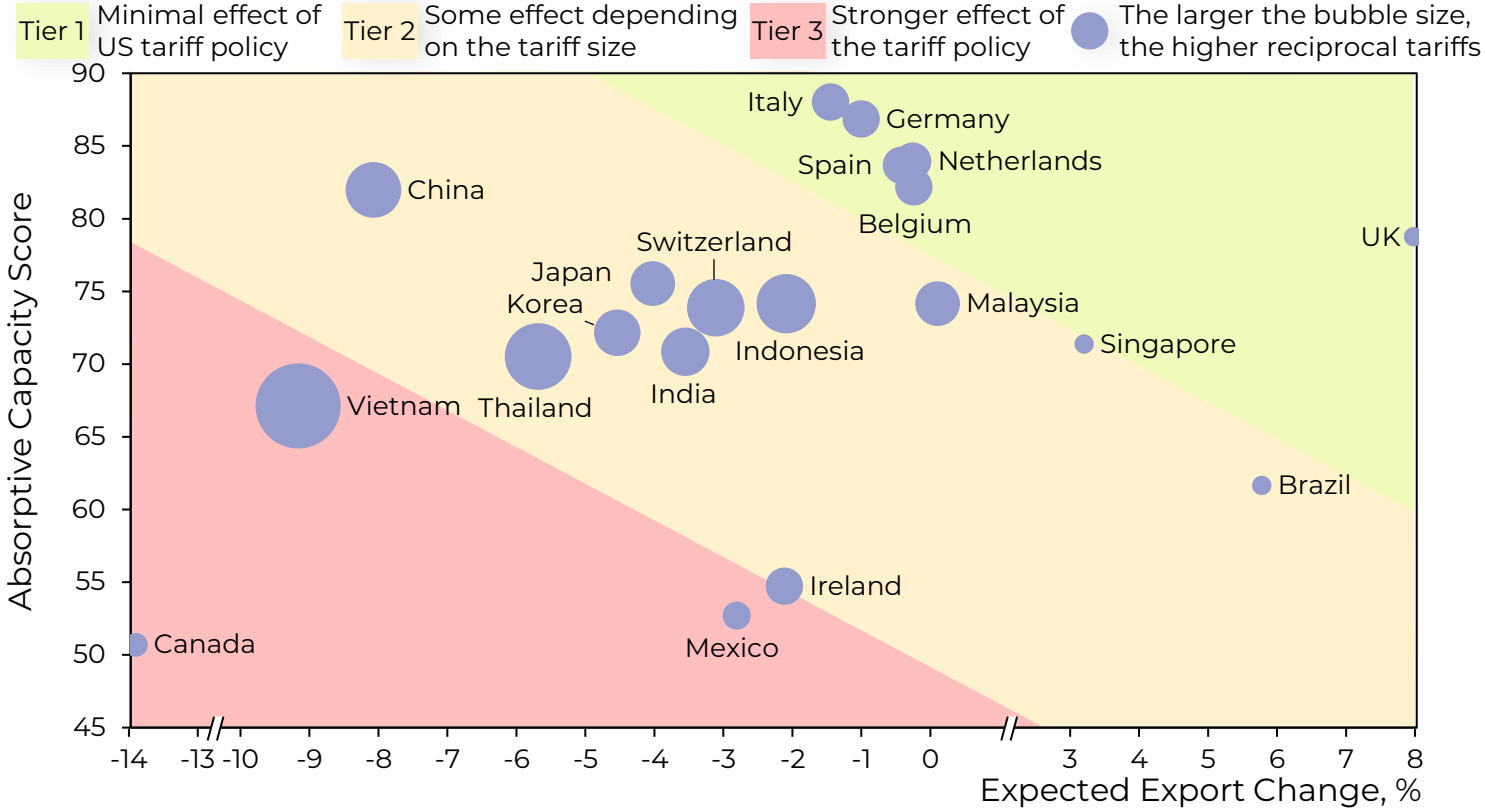
The GTRI and Trade Navigator offer complementary perspectives on trade resilience. GTRI evaluates a country's structural positioning within 96 product-specific global trade networks, emphasizing the breadth of its importance and trade diversification across products and partners.

In contrast, Trade Navigator integrates country-specific tariff data and trade elasticities to estimate how trade flows are likely to respond to changes in trade policy, such as new tariffs or retaliatory measures.

By combining the structural lens of **GTRI** with the policy-sensitive modeling of **Trade Navigator**, analysts gain a **more comprehensive and nuanced understanding of both long-term resilience and short-term vulnerability** to shifts in U.S. trade policy.

As shown in Figure 14, U.S. trade partners can be broadly categorized into three tiers based on their resilience and projected trade impact:

Figure 14. Countries' Absorptive Capacity vs. Expected Trade Impact from U.S. Reciprocal and Reetaliation Tariffs for Top 20 U.S. Trade Partners



Source: Whiteshield GTRI 2025, Whiteshield Trade Navigator

4.4 Absorptive Capacity vs. Tariff Exposure

Tier 1 includes countries expected to experience only **minimal trade disruption from the new tariffs.** These economies combine high absorptive capacity with low to moderate reciprocal tariffs, resulting in limited expected changes in trade flows.

A notable example is the United Kingdom, which not only shows strong absorption capacity but is also likely to benefit from relatively lower tariffs, gaining market share as tariffs hit less resilient partners. Other countries in this group are primarily from Europe, such as Germany and the Netherlands, which exhibit exceptional structural resilience. Singapore also falls into this tier, expected to withstand the shock relatively well due to a modest 10% tariff rate despite only moderate absorptive capacity.

Tier 2 consists of countries expected to face a **moderate impact from the new U.S. tariffs.** These nations are generally subject to higher tariff rates, coupled with moderate levels of absorptive capacity.

The group is largely composed of East and South Asian economies, including China, South Korea, Japan, India, and Indonesia.

While they may experience noticeable trade disruption, their structural resilience provides some buffer against the full extent of the shock.

Tier 3 countries **face the highest vulnerability,** either due to heavy U.S. trade dependence, low absorptive capacity, or both Canada and Mexico are highly exposed due to their concentrated reliance on U.S. trade, despite moderate tariffs. Vietnam is penalized by both high tariff exposure and only moderate absorptive capacity. Ireland is on the border and may suffer primarily from low absorptive capacity, despite not facing the highest tariff levels.

While the GTRI does not explicitly incorporate country-specific tariff differentials in its methodology, a moderate correlation emerges between absorptive capacity and projected export impact, above 0.3 across the full sample, and over 0.5 among the top 10 U.S. trading partners.

This suggests that stronger absorptive capacity generally corresponds to smaller expected export losses.

However, the correlation is partially muted by the variation in tariff rates applied to different countries.

When these tariff differences are removed, creating a uniform shock, the correlation rises to 0.6, reinforcing the idea that structural resilience plays a meaningful role in cushioning the effects of trade policy disruptions.

4.5 Integrating GTRI & Trade Navigator: What We've Learned

The Global Trade Resilience Index (GTRI) 2025 offers a forward-looking framework for evaluating how national economies are positioned to absorb, respond to, and recover from systemic trade disruptions. Its predictive potential is particularly relevant when analyzed in conjunction with real-time trade behavior under stress scenarios. A pertinent case study is the implementation phase of the U.S.'s reciprocal tariff policy, which marked a period of elevated uncertainty and reconfiguration of global trade flows. The 90-day negotiation period around these tariffs can be conceptualized as a "shock absorption window," where market responses to newly imposed tariffs had not yet reached equilibrium.

To quantify these immediate effects, the **Trade Navigator tool was employed. It estimates short-term changes in bilateral trade flows in response to tariff escalation,** capturing two primary phenomena:

- **Trade destruction,** referring to the reduction in total trade volumes due to higher prices and supply chain disruptions, and
- **Trade diversion,** where import flows are redirected from heavily taxed countries to alternative partners with more favorable tariff treatment.

When comparing these real-time trade flow estimates with countries' U.S. Shock Scenario Network Resilience Scores from the GTRI 2025, a moderate positive correlation of 0.3 emerges.

This indicates that countries with higher structural trade resilience are, on average, better able to maintain trade performance in the face of U.S. -imposed tariffs.

However, after excluding statistical outliers, specifically China, Canada, and Mexico, the correlation strengthens markedly to 0.6 (see Figure 15).

These outliers experienced uniquely high and targeted tariff increases that deviate from general trade patterns. For instance:

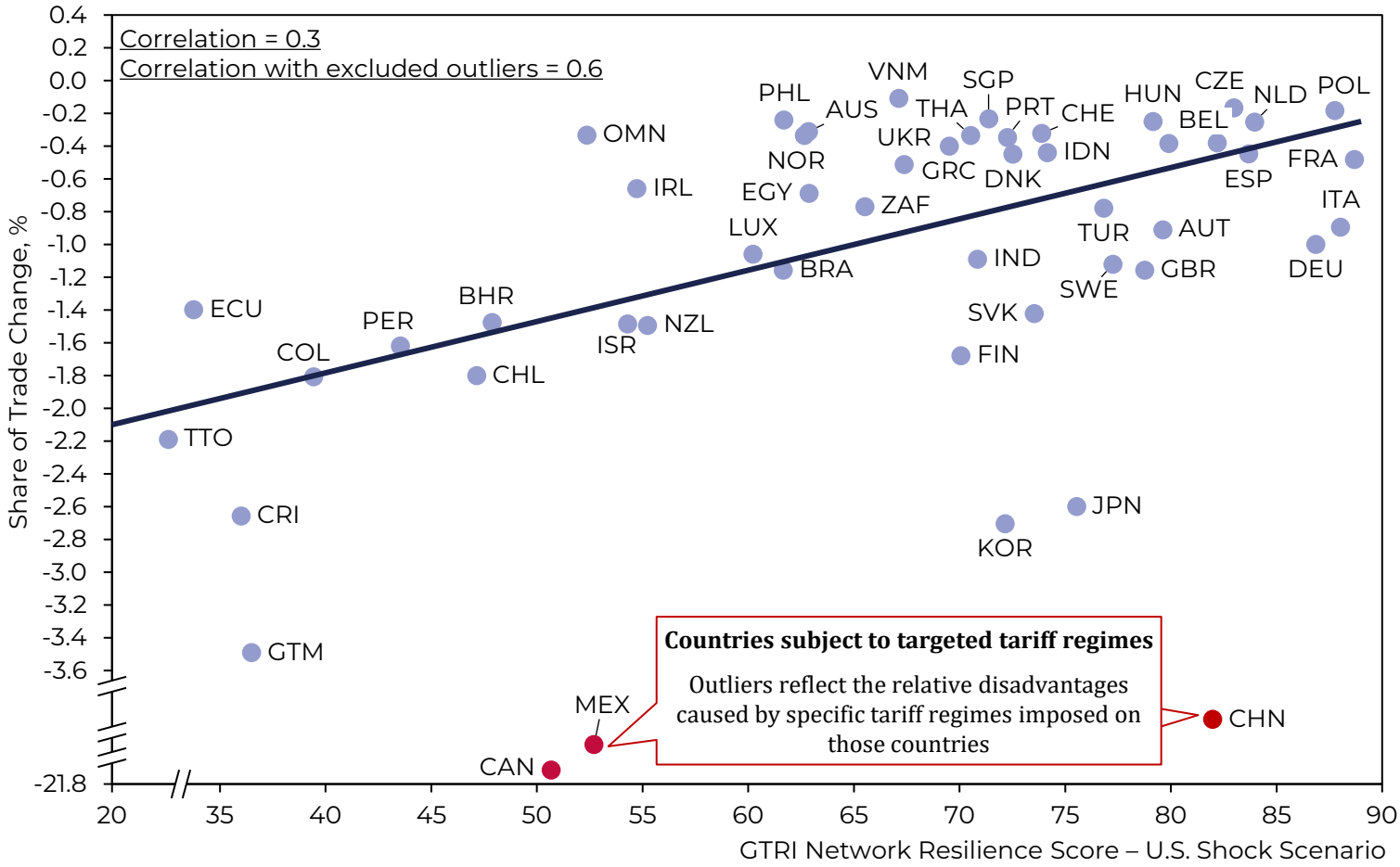
- China faced extensive Section 301 tariffs, targeting over $350 billion worth of exports.
- Canada and Mexico were affected by tariffs on steel, aluminum, and automobiles under national security justifications (Section 232), despite their integration into the North American trade architecture.

These tailored trade interventions introduce distortions that the GTRI, by design, does not capture. GTRI measures systemic and structural trade resilience such as network centrality, diversification, and policy agility, but does not explicitly factor in the geopolitical intent or asymmetry of trade actions.

As such, the divergence between Trade Navigator and GTRI results for these countries highlights the complementary roles of the two tools.

4.5 Integrating GTRI & Trade Navigator: What We've Learned

Figure 15. Relationship Between GTRI Network Resilience Score and Trade Navigator Estimates of Expected Trade Changes During the Negotiation Period of U.S. Reciprocal Tariff Policy (2025 Estimates) – Top 50 GTRI Countries



Source: Whiteshield GTRI 2025, Whiteshield Trade Navigator

The comparative analysis of GTRI and Trade Navigator provides several insights:

- GTRI is effective for strategic resilience assessments, helping policymakers understand a country's baseline ability to weather generalized global trade disruptions or region-specific shocks.
- Trade Navigator offers granular, short-term diagnostics, making it suitable for evaluating the direct impact of policy interventions such as tariffs, quotas, or embargoes.

Together, these tools present a dual-lens framework: one grounded in structural attributes and another responsive to near-term policy shocks. This duality is particularly valuable in today's volatile trade landscape, where both systemic vulnerabilities and policy-induced disruptions must be managed simultaneously.

WHITESHIELD

Section 5
GTRI 2025 Policy Implications and Recommendations

5.1 Strengthening National and Global Trade Resilience

The findings underscore the strategic importance of diversification, institutional strength, and regional integration in building resilient trade systems. Lessons from both the empirical GTRI results and comparative country experiences suggest several priorities for policymakers aiming to future-proof their trade architectures against systemic shocks.

1. **Diversification of Trade Partners and Products**. Overreliance on a limited number of export destinations or import sources increases vulnerability to bilateral trade disruptions. Economies such as Vietnam have actively pursued diversification through bilateral agreements (e.g., CPTPP, EVFTA), which have reduced dependence on dominant partners and supported sustained export growth despite rising protectionism.
2. **Strengthening Regional Trade Frameworks.** Regional trade agreements (RTAs) like the European Union and the African Continental Free Trade Area (AfCFTA) play a vital role in stabilizing trade flows during global uncertainty. The EU's single market has consistently provided a buffer for member states through harmonized standards and high internal trade shares. Countries outside such frameworks should explore regional cooperation to strengthen their collective bargaining and supply chain integration.
3. **Enhancing Institutional and Regulatory Capacity.** Institutional quality including transparent regulation, efficient customs procedures, and dispute resolution mechanisms is a core determinant of absorptive capacity. Singapore's agile and transparent trade institutions, for instance, have enabled rapid policy adaptation during crises such as the COVID-19 pandemic. Investing in trade facilitation reforms, as encouraged by the WTO Trade Facilitation Agreement, can yield long-term dividends in resilience.
4. **Digital Trade and Infrastructure Investment**. Digitalization of trade logistics, such as e-customs, blockchain traceability, and AI-driven port management, has emerged as a critical resilience factor. The Netherlands and Singapore offer strong models of how smart logistics systems can reduce trade friction and accelerate recovery from disruption. Public investment in digital infrastructure, combined with public-private innovation partnerships, should be central to national resilience strategies.

Source: Whiteshield Analysis

5.1 Strengthening National and Global Trade Resilience

5. **Institutionalizing Risk Assessment and Scenario Planning.** Countries should develop capabilities for ongoing trade risk assessment, including stress-testing of trade networks and contingency planning. Regular simulations, such as the U.S. shock scenario in the GTRI, can help identify systemic dependencies and guide evidence-based diversification strategies. Building institutional memory and analytical capacity for scenario-based planning enhances long-term preparedness.
6. **Skilled Labor and Active Labor Market Policies.** A resilient trade system also depends on a dynamic and adaptable workforce. Investment in vocational education, continuous skills development, and industry-specific training programs ensures that labor markets can respond quickly to structural shifts in global demand. Germany's dual education system, which combines classroom learning with practical training, is widely regarded as a benchmark. In parallel, active labor market policies, such as job matching services, retraining programs, and mobility support, help workers transition across sectors and mitigate the social impact of trade disruptions. Policies that foster workforce resilience complement trade resilience by enabling domestic industries to maintain productivity during times of global volatility
7. **Equity and Inclusive Participation in Trade Resilience.** Resilience must also be inclusive. Small and medium-sized enterprises (SMEs), women-owned businesses, and marginalized regions often lack the capacity to respond to trade shocks. Policies that promote inclusive access to trade finance, digital tools, and capacity-building resources can ensure that resilience benefits are equitably distributed, enhancing systemic stability.

In sum, resilience is not simply a function of size or wealth, but of strategic foresight and adaptive policy frameworks. Governments that invest in institutional agility, diversified partnerships, and robust regional networks are better positioned to navigate the complexities of an increasingly fragmented global trade environment.

Source: Whiteshield Analysis

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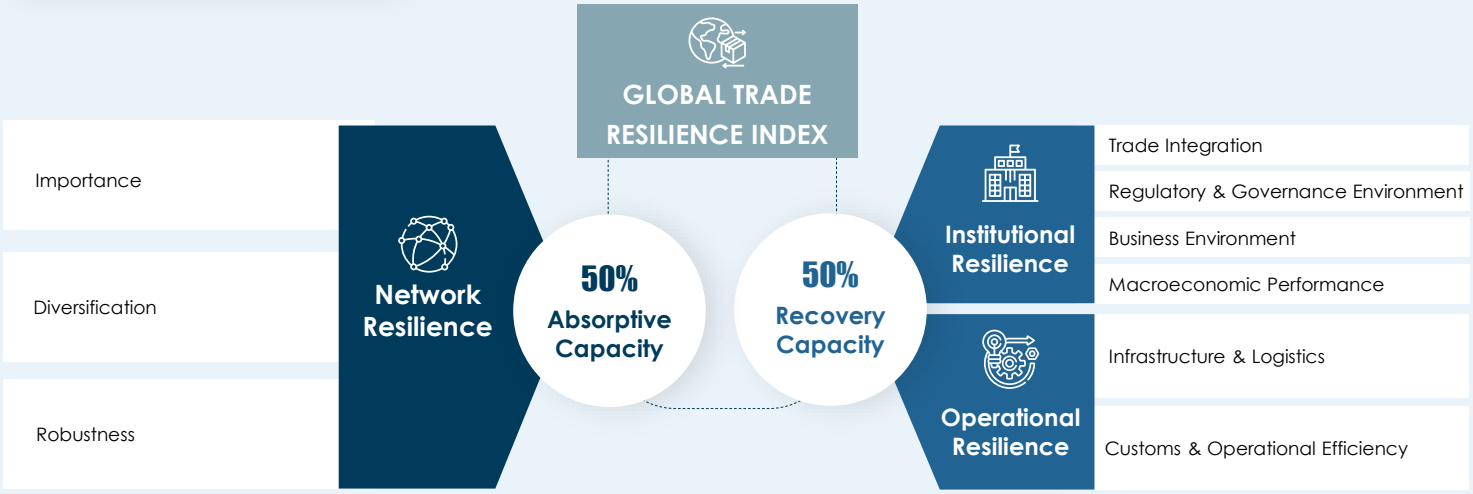
Appendix A

GTRI Methodology Infographics

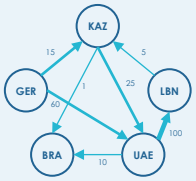
THE GLOBAL TRADE RESILIENCE INDEX

STRUCTURE



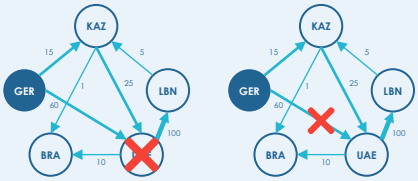
NETWORK RESILIENCE

reflects the current positioning of countries in trade networks based on the set of network theory-based indicators



Up to 96 product networks

Exporter and Importer perspectives



Robustness of countries to the simulated shocks

INSTITUTIONAL RESILIENCE

captures the institutional factors that support or hamper trade resilience in short- to medium- term and is constructed as a composite index based on the related indicators

OPERATIONAL RESILIENCE

captures "on-the-ground" operational factors that facilitate or hamper trade resilience in short- to medium- term and is constructed as a composite index based on the related indicators

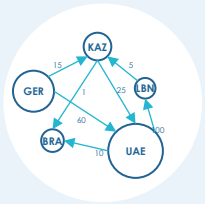
ABSORPTIVE CAPACITY

1. NETWORK RESILIENCE PILLAR

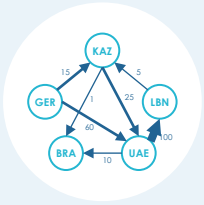
1.1 IMPORTANCE

countries' market power at the product level

A total of 4 indicators:

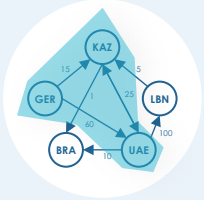


Strength

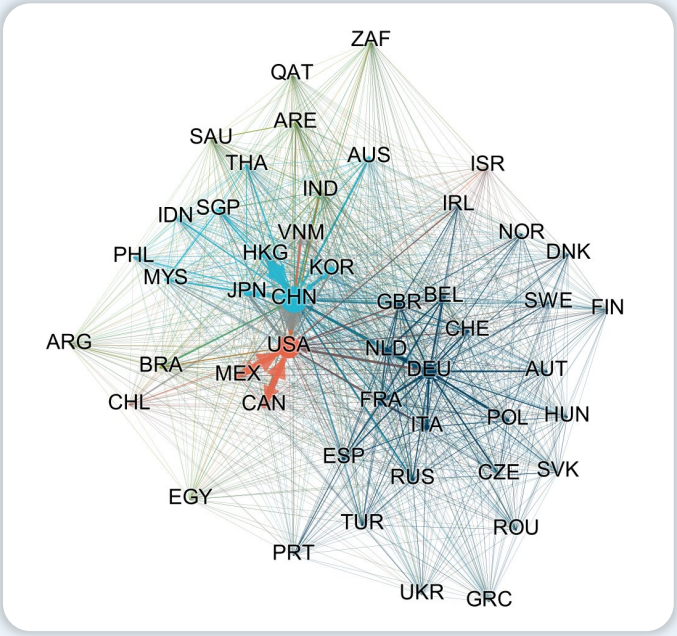


Importance of trade connections

Complexity of trade



Clustering



Note: the graph shows a total trade network of the major trade flows. Nodes are the countries, edges show trade flows, colors show trade communities

1.2 DIVERSIFICATION

the extent to which countries' exports or imports can be reoriented to other countries

A total of 4 indicators:

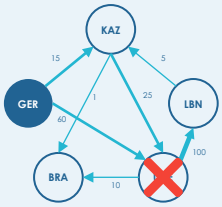
	By product	By trade partners
Export		
Import		

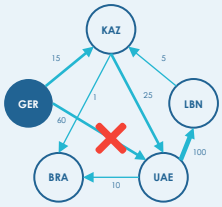
1.3 ROBUSTNESS

the extent to which countries' exports and imports can withstand shocks

A total of 8 indicators:

Metrics	Flows	Shocks
Strength	Export	Major trade partner blockage
Importance of trade connections	Import	Major trade route blockage





RECOVERY CAPACITY

2. INSTITUTIONAL RESILIENCE PILLAR

2.1 Trade Integration

Integration
- Number of RTAs covering goods and services trade
- Foreign Direct Investment
- Involvement of the trade community
- External border agency cooperation

Border measures
- Applied Weighted Tariffs
- Import tariff rates on non-agricultural and non-fuel products
- Trade distorting policies
- Trade enhancing policies

2.2 Regulatory & Governance Environment

Exchange rate volatility
- Real effective exchange rate volatility

Credit rating
- Credit rating

Regulatory environment
- Corruption index
- Regulatory Quality
- Government Effectiveness
- Intellectual Property Rights
- Governance and impartiality

Law protection
- Rule of Law
- Privacy protection by law content

Political stability
- Political Stability and Absence of Violence/Terrorism Index

2.3 Business Environment

Access to loans
- Domestic credit to the private sector

Competitiveness
- Impact of a country on MVA and world manufactures trade
- Shares of Medium & High Tech MVA and manufactured exports

Innovation
- Share of ICT goods in total trade
- Computer software spending
- Adoption of emerging technologies
- Investment in emerging technologies

2.4 Macroeconomic Performance

- GDP per capita

3. OPERATIONAL RESILIENCE PILLAR

3.1 Infrastructure & Logistics

Infrastructure
- Infrastructure

Customs capacity
- Container port throughput

Logistics quality
- Logistics quality and competence
- Tracking and Tracing
- Timeliness

Connectivity
- Liner shipping connectivity index

3.2 Customs & Operational Efficiency

Efficiency of customs
- Customs
- Information Availability
- Advance rulings
- Appeal Procedures
- Fees and charges discipline
- Documents
- Automation
- Procedures
- Internal border agency cooperation
- International shipments

WHITESHIELD

Appendix B

U.S. Shock Scenario GTRI Methodology Visuals

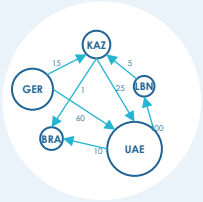
U.S. SHOCK SCENARIO ABSORPTIVE CAPACITY

1. NETWORK RESILIENCE PILLAR

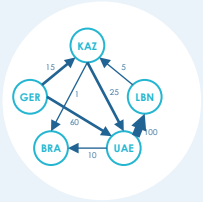
1.1 IMPORTANCE – U.S. IS ISOLATED FROM GLOBAL TRADE

countries' market power at the product level

A total of 4 indicators:

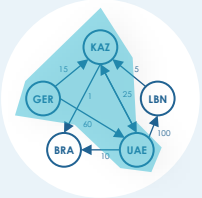


Strength

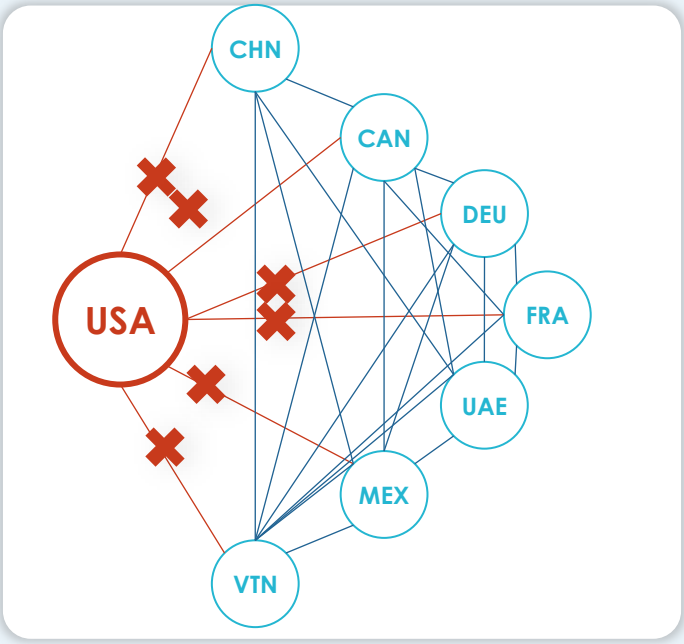


Importance of trade connections

Complexity of trade



Clustering

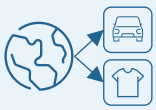
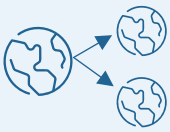
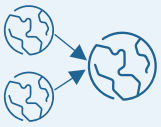


Note: the graph shows a total trade network of the major trade flows. Nodes are the countries, edges show trade flows

1.2 DIVERSIFICATION – U.S. IS ISOLATED FROM GLOBAL TRADE

the extent to which countries' exports or imports can be reoriented to other countries

A total of 4 indicators:

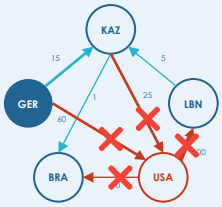
	By product	By trade partners
Export		
Import		

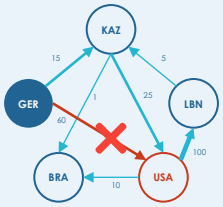
1.3 ROBUSTNESS – HOW COUNTRIES ADJUST TO U.S. ISOLATION FROM GLOBAL TRADE

the extent to which countries' exports and imports can withstand shocks

A total of 8 indicators:

Metrics	Flows	Shocks
 Strength	 Export	U.S. blockage for all countries
 Importance of trade connections	 Import	U.S. blockage for only selected country





WHITESHIELD

Appendix C

Country-Level Results: U.S. Shock Scenario

Table 2. U.S. Shock Scenario GTRI 2025Scores and Ranks

WHITESHIELD

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Germany	83.96	45	Russia	61.24	89	Panama	43.15
2	Netherlands	83.95	46	Israel	60.59	90	Uzbekistan	43.11
3	France	82.93	47	Malta	60.36	91	Myanmar	43.04
4	Italy	80.64	48	Cyprus	59.53	92	Tanzania	41.11
5	Singapore	80.43	49	Qatar	58.01	93	Paraguay	40.78
6	Spain	80.39	50	Saudi Arabia	57.66	94	Maldives	40.59
7	Belgium	80.32	51	Serbia	57.30	95	Mozambique	40.57
8	Switzerland	80.13	52	Brazil	57.11	96	Dominican Republic	40.23
9	Austria	79.84	53	Iceland	56.77	97	Bolivia	39.76
10	UK	78.48	54	Oman	56.37	98	Guatemala	39.64
11	Sweden	78.04	55	Philippines	56.12	99	Kyrgyzstan	39.25
12	Japan	77.79	56	B&H	55.96	100	Ecuador	39.22
13	Poland	77.70	57	Mexico	55.56	101	Benin	39.09
14	China	77.28	58	Egypt	53.32	102	Malawi	38.88
15	Korea	76.34	59	North Macedonia	53.28	103	Tajikistan	38.74
16	Denmark	75.04	60	Tunisia	52.97	104	Laos	38.24
17	Czechia	74.44	61	Ukraine	52.04	105	El Salvador	37.70
18	Finland	72.59	62	Chile	52.00	106	Madagascar	37.65
19	Malaysia	72.12	63	Mauritius	51.55	107	Fiji	36.98
20	Portugal	71.81	64	Albania	51.50	108	Zambia	36.69
21	UAE	70.79	65	Kazakhstan	51.12	109	Nepal	36.11
22	Hungary	70.17	66	Uruguay	50.19	110	Ethiopia	36.07
23	Australia	68.96	67	Bahrain	50.05	111	Mongolia	36.06
24	Slovakia	68.87	68	Pakistan	49.63	112	Honduras	35.73
25	Greece	68.54	69	Sri Lanka	49.32	113	Zimbabwe	35.44
26	Luxembourg	68.37	70	Argentina	49.06	114	Gambia	35.41
27	Romania	68.37	71	Brunei	48.93	115	Swaziland	35.29
28	Norway	68.07	72	Kuwait	48.69	116	Nigeria	34.57
29	Turkey	67.63	73	Montenegro	48.33	117	Rwanda	34.50
30	Slovenia	67.12	74	Senegal	47.82	118	Jamaica	34.23
31	Thailand	66.84	75	Armenia	47.52	119	Samoa	33.52
32	Croatia	65.50	76	Azerbaijan	47.17	120	Angola	32.72
33	Estonia	64.75	77	Peru	46.86	121	Trinidad & Tobago	31.88
34	Bulgaria	64.42	78	Moldova	46.73	122	Lesotho	31.85
35	Lithuania	64.30	79	Lebanon	46.49	123	Niger	31.84
36	Canada	63.93	80	Jordan	46.20	124	Nicaragua	31.84
37	India	63.77	81	Colombia	45.74	125	Togo	31.17
38	Vietnam	63.58	82	Kenya	45.37	126	Congo	29.63
39	Ireland	63.45	83	Belarus	45.00	127	Burkina Faso	27.87
40	Indonesia	62.89	84	Costa Rica	44.90	128	Burundi	25.69
41	New Zealand	62.80	85	Georgia	44.63	129	Guyana	25.32
42	Latvia	62.76	86	Namibia	44.03	130	Suriname	22.74
43	South Africa	62.60	87	Botswana	43.56	131	Belize	22.72
44	Morocco	61.34	88	Cambodia	43.35			

Note: Rank 1st is left empty as it
Source: Investment Monitor's 2020 Data Centre Ranking

WHITESHIELD

Appendix D

Pillar-Specific Scores: Baseline and U.S. Shock

Table 3. GTRI Baseline Network Resilience Pillar 2025

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Germany	97.53	45	B&H	61.40	89	North Macedonia	39.92
2	Italy	92.43	46	Morocco	61.31	90	Malawi	39.34
3	China	91.30	47	Latvia	60.32	91	Ethiopia	38.09
4	France	89.94	48	New Zealand	58.93	92	Oman	37.88
5	UK	88.00	49	Tunisia	57.97	93	Armenia	36.91
6	USA	87.70	50	Argentina	57.89	94	Honduras	36.68
7	Netherlands	87.37	51	Qatar	57.44	95	Nicaragua	36.52
8	Spain	84.98	52	Australia	57.37	96	Jamaica	36.37
9	Belgium	82.85	53	Philippines	56.09	97	Mozambique	36.07
10	Japan	82.02	54	Russia	54.00	98	Dominican Republic	35.83
11	Sweden	80.96	55	Sri Lanka	53.59	99	Panama	34.52
12	Turkey	77.80	56	Moldova	52.54	100	Tanzania	34.25
13	Singapore	77.75	57	Cyprus	52.43	101	Zambia	33.98
14	Poland	77.47	58	Jordan	51.92	102	Uzbekistan	33.90
15	Switzerland	77.15	59	Luxembourg	51.84	103	Myanmar	33.87
16	India	77.03	60	Uruguay	51.63	104	Angola	33.27
17	Malaysia	75.15	61	Colombia	51.60	105	Belarus	32.28
18	Thailand	73.65	62	Chile	51.56	106	Azerbaijan	31.88
19	Korea	73.49	63	Slovenia	49.69	107	Namibia	31.86
20	Denmark	72.75	64	Kuwait	49.11	108	Brunei	31.18
21	Finland	72.48	65	Pakistan	48.98	109	Guyana	30.71
22	UAE	70.36	66	Mexico	47.48	110	Paraguay	30.51
23	Romania	69.72	67	Iceland	47.40	111	Benin	29.84
24	Hungary	69.60	68	Lebanon	47.37	112	Trinidad & Tobago	29.71
25	Greece	69.15	69	Kazakhstan	47.36	113	Belize	25.91
26	Lithuania	68.19	70	Ecuador	47.16	114	Fiji	24.03
27	Brazil	67.79	71	Mauritius	46.77	115	Gambia	22.41
28	Czechia	67.68	72	Albania	46.67	116	Kyrgyzstan	20.24
29	Ukraine	67.61	73	Peru	46.24	117	Botswana	19.87
30	Indonesia	67.35	74	Guatemala	46.07	118	Burundi	19.53
31	Bulgaria	67.31	75	Bahrain	45.19	119	Laos	19.34
32	Norway	67.30	76	El Salvador	45.13	120	Zimbabwe	18.81
33	Austria	67.19	77	Madagascar	45.04	121	Tajikistan	18.44
34	Israel	66.80	78	Senegal	44.44	122	Swaziland	18.13
35	Ireland	66.66	79	Maldives	44.28	123	Samoa	18.00
36	South Africa	66.59	80	Montenegro	44.17	124	Nepal	17.29
37	Slovakia	66.27	81	Canada	43.76	125	Lesotho	16.97
38	Serbia	65.96	82	Bolivia	43.27	126	Niger	16.66
39	Croatia	65.46	83	Nigeria	43.10	127	Congo	14.53
40	Portugal	64.27	84	Kenya	42.34	128	Suriname	13.32
41	Estonia	63.90	85	Malta	41.81	129	Rwanda	12.56
42	Egypt	63.30	86	Costa Rica	41.24	130	Togo	9.53
43	Saudi Arabia	62.40	87	Cambodia	40.93	131	Burkina Faso	8.51
44	Vietnam	62.14	88	Georgia	40.64	132	Mongolia	3.39

Source: Whiteshield

Table 4. GTRI Baseline Institutional Resilience Pillar 2025

WHITESHIELD

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Singapore	83.50	45	Thailand	56.18	89	Armenia	39.52
2	Switzerland	81.30	46	Chile	56.07	90	Cambodia	38.97
3	Sweden	79.16	47	Mexico	56.02	91	Argentina	38.77
4	Netherlands	78.66	48	Romania	55.29	92	Azerbaijan	38.03
5	Norway	78.07	49	Oman	53.80	93	Honduras	37.57
6	USA	77.49	50	Panama	53.74	94	Ecuador	37.55
7	Ireland	77.30	51	Costa Rica	52.81	95	Belize	37.02
8	Denmark	76.92	52	Mauritius	52.65	96	Maldives	36.93
9	Germany	76.84	53	Saudi Arabia	51.78	97	Sri Lanka	36.90
10	Luxembourg	76.56	54	Vietnam	51.46	98	Lebanon	36.08
11	UK	75.68	55	Bahrain	50.97	99	Moldova	35.41
12	Austria	75.63	56	South Africa	49.89	100	Egypt	34.89
13	Japan	74.92	57	Uruguay	49.79	101	Nicaragua	34.66
14	Finland	74.68	58	Botswana	47.99	102	Senegal	34.59
15	Korea	74.29	59	Indonesia	47.72	103	Bolivia	34.58
16	Australia	74.19	60	Trinidad & Tobago	47.47	104	Laos	33.20
17	Canada	74.12	61	Guyana	47.14	105	Uzbekistan	33.19
18	France	73.26	62	Montenegro	46.94	106	Belarus	33.04
19	Iceland	71.17	63	North Macedonia	46.26	107	Nepal	32.67
20	Malta	70.86	64	Turkey	46.25	108	Swaziland	32.64
21	Belgium	70.70	65	Russia	45.85	109	Suriname	31.33
22	Portugal	70.29	66	Fiji	45.81	110	Kenya	30.93
23	New Zealand	69.25	67	Dominican Republic	45.80	111	Kyrgyzstan	30.69
24	Spain	68.68	68	Serbia	45.65	112	Rwanda	30.45
25	Italy	68.23	69	Kazakhstan	44.75	113	Benin	30.22
26	Estonia	67.05	70	Philippines	44.59	114	Gambia	29.29
27	Czechia	65.98	71	Jamaica	44.30	115	Congo	29.20
28	Cyprus	65.07	72	Mongolia	43.97	116	Lesotho	27.95
29	Israel	63.60	73	Colombia	43.86	117	Pakistan	26.61
30	Qatar	63.44	74	Peru	43.72	118	Tanzania	25.44
31	Malaysia	62.94	75	Georgia	43.67	119	Zambia	24.78
32	Poland	62.77	76	Morocco	43.41	120	Tajikistan	24.66
33	Slovakia	62.65	77	India	43.33	121	Angola	24.43
34	Slovenia	62.59	78	Albania	43.09	122	Nigeria	23.99
35	China	62.32	79	Samoa	42.83	123	Togo	23.88
36	UAE	62.21	80	Tunisia	42.56	124	Madagascar	23.88
37	Lithuania	61.22	81	Brazil	42.14	125	Mozambique	23.66
38	Greece	60.50	82	B&H	42.13	126	Burkina Faso	22.74
39	Latvia	59.82	83	El Salvador	42.12	127	Niger	22.20
40	Hungary	59.79	84	Namibia	41.81	128	Ethiopia	21.62
41	Kuwait	59.56	85	Ukraine	40.94	129	Zimbabwe	20.93
42	Croatia	58.91	86	Jordan	39.98	130	Myanmar	20.64
43	Brunei	58.62	87	Guatemala	39.97	131	Malawi	20.49
44	Bulgaria	56.91	88	Paraguay	39.65	132	Burundi	10.23

Source: Whiteshield

Table5. GTRI Baseline Operational Resilience Index 2025

WHITESHIELD

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Singapore	95.22	45	Lithuania	63.55	89	Serbia	38.60
2	Switzerland	91.21	46	Brazil	62.67	90	Tunisia	38.43
3	Netherlands	88.68	47	Latvia	62.64	91	Rwanda	37.02
4	USA	87.22	48	Croatia	62.56	92	Cambodia	35.67
5	Korea	86.56	49	Hungary	62.47	93	Malawi	35.61
6	Belgium	85.76	50	Iceland	60.57	94	Nicaragua	35.12
7	Spain	85.15	51	Mexico	60.28	95	Benin	35.04
8	Germany	84.98	52	Colombia	59.87	96	Myanmar	34.88
9	Japan	84.88	53	Romania	58.19	97	Trinidad & Tobago	34.68
10	Austria	84.27	54	Azerbaijan	58.03	98	Namibia	34.60
11	China	82.76	55	Chile	57.42	99	Paraguay	33.91
12	France	80.50	56	Pakistan	57.22	100	Lesotho	33.81
13	UK	80.09	57	Cyprus	57.15	101	Nigeria	32.81
14	Canada	79.71	58	North Macedonia	56.53	102	Jamaica	32.77
15	UAE	78.99	59	Peru	56.45	103	Tanzania	32.57
16	Sweden	78.13	60	Philippines	56.30	104	Ukraine	32.25
17	Italy	78.01	61	Indonesia	55.20	105	Togo	32.24
18	Denmark	77.93	62	Bulgaria	55.01	106	Mongolia	31.65
19	Malaysia	76.95	63	Costa Rica	54.60	107	Mozambique	30.96
20	Luxembourg	76.35	64	Uruguay	53.77	108	Tajikistan	30.29
21	Australia	75.60	65	Bahrain	53.41	109	Congo	30.29
22	Finland	75.31	66	Russia	53.39	110	Belarus	30.12
23	Morocco	74.56	67	Argentina	53.10	111	Zambia	28.98
24	Greece	74.37	68	Egypt	52.35	112	Swaziland	28.97
25	Poland	72.16	69	Ecuador	51.50	113	Fiji	27.95
26	Portugal	72.14	70	Botswana	50.51	114	Moldova	27.29
27	New Zealand	71.23	71	Mauritius	48.73	115	Angola	26.84
28	Turkey	70.10	72	Sri Lanka	48.13	116	Ethiopia	26.49
29	Israel	69.89	73	B&H	46.72	117	Zimbabwe	26.42
30	Thailand	69.77	74	Kenya	46.22	118	Uzbekistan	26.38
31	India	69.69	75	Georgia	45.64	119	Bolivia	25.07
32	South Africa	69.15	76	Dominican Republic	45.60	120	Kyrgyzstan	24.98
33	Norway	68.70	77	Guatemala	45.48	121	Laos	24.61
34	Vietnam	68.22	78	Senegal	43.17	122	Niger	23.74
35	Ireland	66.75	79	Kuwait	43.07	123	Madagascar	23.11
36	Oman	66.75	80	Armenia	42.86	124	Gambia	21.44
37	Malta	66.67	81	Jordan	42.54	125	Nepal	20.65
38	Slovenia	66.61	82	Kazakhstan	42.44	126	Maldives	19.04
39	Saudi Arabia	65.89	83	Montenegro	41.87	127	Samoa	17.96
40	Czechia	65.60	84	El Salvador	41.66	128	Burkina Faso	16.52
41	Slovakia	65.59	85	Brunei	40.72	129	Guyana	15.95
42	Estonia	65.01	86	Albania	39.71	130	Suriname	11.95
43	Panama	63.84	87	Honduras	38.88	131	Burundi	8.82
44	Qatar	63.59	88	Lebanon	38.88	132	Belize	8.45

Source: Whiteshield

Table 6. GTRI U.S. Shock Scenario Network Resilience Pillar 2025*

WHITESHIELD

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	France	88.68	45	Australia	62.84	89	Ethiopia	48.06
2	Italy	88.02	46	Norway	62.65	90	Bahrain	47.87
3	Poland	87.75	47	Moldova	62.08	91	Iceland	47.57
4	Germany	86.86	48	Philippines	61.68	92	Laos	47.51
5	Netherlands	83.96	49	Brazil	61.66	93	Zimbabwe	47.18
6	Spain	83.68	50	Albania	61.57	94	Chile	47.15
7	Czechia	82.98	51	Luxembourg	60.22	95	Zambia	46.46
8	Belgium	82.19	52	Kazakhstan	58.55	96	Azerbaijan	46.27
9	China	81.98	53	Belarus	58.39	97	Kuwait	46.00
10	Romania	79.90	54	Myanmar	58.29	98	Nepal	45.53
11	Austria	79.61	55	Cyprus	57.89	99	Benin	45.50
12	Hungary	79.15	56	Pakistan	57.14	100	Gambia	45.42
13	UK	78.76	57	Senegal	56.68	101	Paraguay	44.72
14	Sweden	77.26	58	Uzbekistan	56.40	102	Georgia	44.56
15	Turkey	76.82	59	Saudi Arabia	56.33	103	Peru	43.54
16	Japan	75.54	60	Sri Lanka	55.91	104	Burundi	41.84
17	Malaysia	74.16	61	Lebanon	55.39	105	Niger	40.71
18	Indonesia	74.15	62	New Zealand	55.22	106	Nigeria	40.67
19	Switzerland	73.88	63	North Macedonia	55.10	107	Angola	39.77
20	Slovakia	73.53	64	Ireland	54.73	108	Swaziland	39.76
21	Bulgaria	72.80	65	Israel	54.29	109	Colombia	39.43
22	Russia	72.71	66	Mozambique	53.78	110	Botswana	37.85
23	Denmark	72.52	67	Armenia	53.77	111	Fiji	37.04
24	Serbia	72.46	68	Maldives	53.15	112	Samoa	36.60
25	Portugal	72.27	69	Tanzania	53.14	113	Guatemala	36.49
26	Korea	72.15	70	Mexico	52.70	114	Burkina Faso	36.09
27	Singapore	71.38	71	Qatar	52.41	115	Costa Rica	36.00
28	India	70.85	72	Oman	52.36	116	Rwanda	35.20
29	UAE	70.81	73	Mauritius	52.33	117	Dominican Republic	34.69
30	Thailand	70.52	74	Montenegro	52.23	118	Mongolia	34.26
31	Croatia	70.19	75	Argentina	52.12	119	Togo	34.23
32	Finland	70.07	76	Kenya	52.07	120	Ecuador	33.75
33	Slovenia	69.54	77	Malta	51.84	121	El Salvador	33.44
34	Greece	69.51	78	Madagascar	51.75	122	Honduras	33.15
35	B&H	67.47	79	Jordan	51.02	123	Lesotho	32.79
36	Ukraine	67.38	80	Canada	50.69	124	Jamaica	29.84
37	Vietnam	67.12	81	Kyrgyzstan	50.65	125	Congo	29.47
38	Lithuania	66.13	82	Tajikistan	49.95	126	Nicaragua	28.75
39	South Africa	65.53	83	Namibia	49.80	127	Panama	27.38
40	Tunisia	65.29	84	Malawi	49.68	128	Suriname	23.82
41	Latvia	64.23	85	Bolivia	49.65	129	Belize	22.67
42	Morocco	63.42	86	Cambodia	49.35	130	Trinidad & Tobago	22.66
43	Estonia	63.40	87	Uruguay	48.51	131	Guyana	19.05
44	Egypt	62.88	88	Brunei	48.16			

Source: Whiteshield

*U.S. is excluded from the ranking

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