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Logistics and Trade Facilitation
11th Session**

Maritime Transport in Times of Polycrisis

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**Strengthening Maritime Transport:
Resilience Strategies for Navigating Today's
Challenges**

Presentation By

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Strengthening Maritime Transport: Resilience Strategies for Navigating Today's Challenges

UNCTAD Multi-Year Expert Meeting | October 2024 | Geneva



Zera Zheng
Head of Business Resilience LL Maersk

Improving life for all by integrating the world

— The integration illustrated by five years of Automatic Identification System (AIS) transponder data from A.P. Moller - Maersk vessels registered in the company's scheduling system GSIS

● Gateway and hub terminals

A.P. Moller - Maersk is an integrated logistics company working to connect and simplify its customers' supply chains. As a global leader in logistics services, the company has 100,000+ customers, operates in more than 130 countries and employs around 100,000 people. A.P. Moller - Maersk is aiming to reach net zero emissions by 2040 across the entire supply chain with new technologies, new vessels and green energy solutions.

Ocean



Green methanol-enabled vessels on order 24

Containers per annum (m FFE), serving over 475 ports worldwide 11.9

Container vessels deployed 670+

Logistics & Services



7,800k+ sqm warehousing capacity worldwide across 460+ sites

Electric vehicles in operation; 200+ more on order 100+

Intermodal volumes managed (m FFE) 4.0

Terminals*



Moves in 2023 21.7m

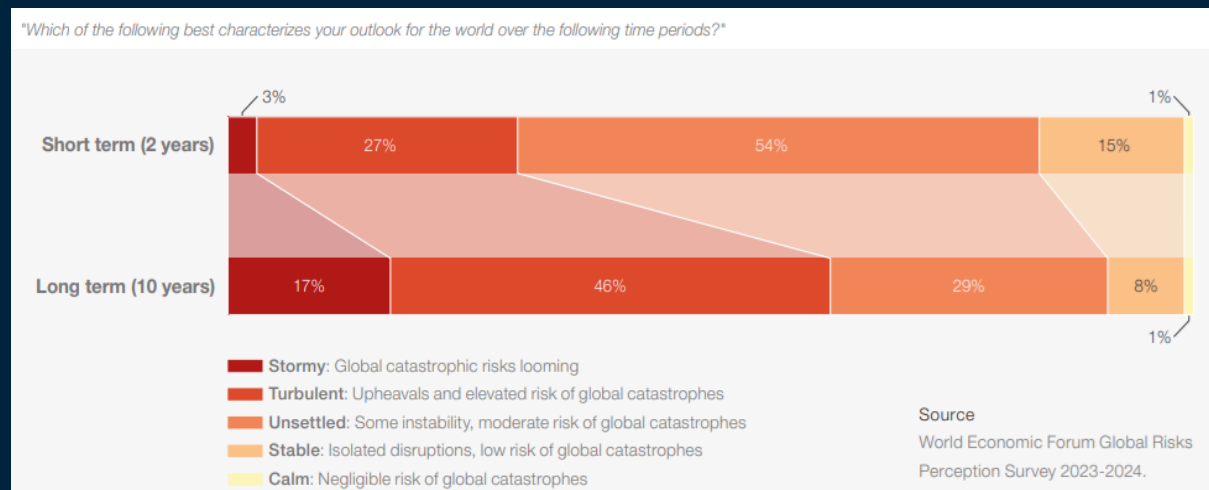
Vessel calls 27,000+

Operating facilities across 35 countries; 3 new port projects 62

* Gateway terminals and hubs

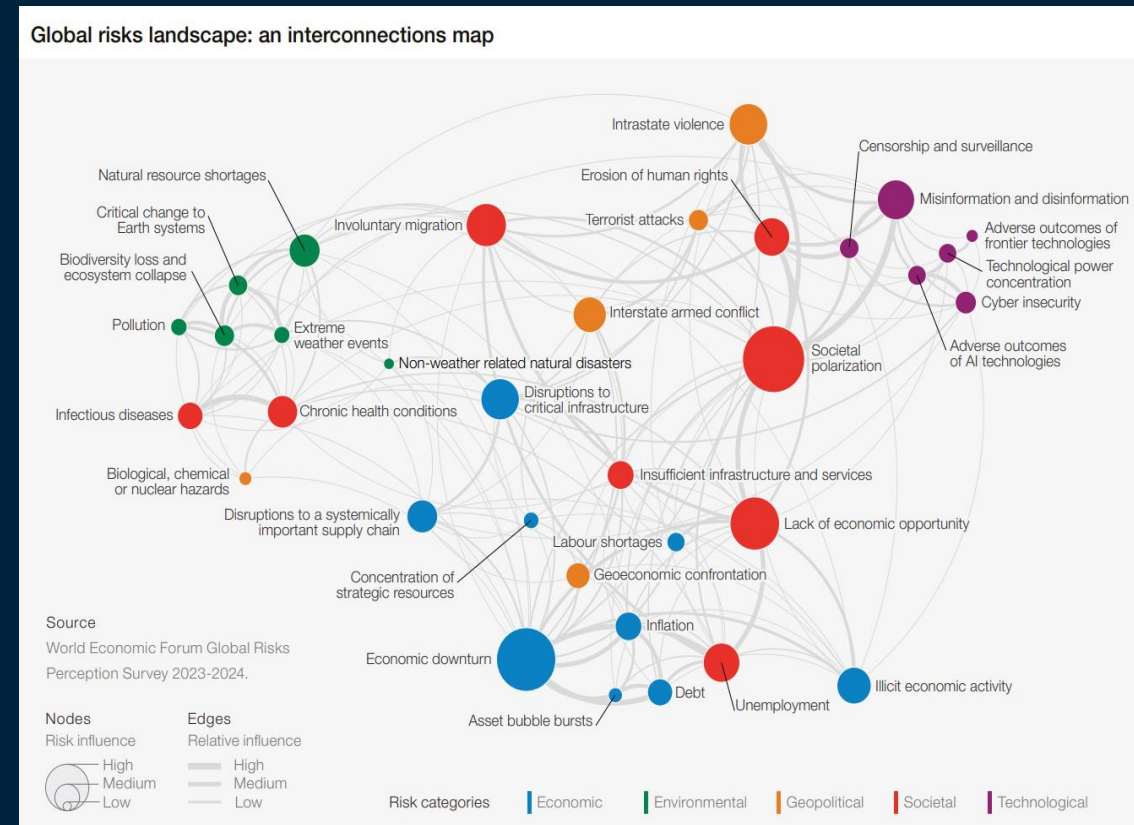
Rising Global Risks with Geopolitical Instability and a 'Polycrisis' of Environmental, Economic, and Supply Chain Disruptions...

WEF Global Risk Report 2024 results highlight a predominantly negative outlook for the world over the next two years that is expected to worsen over the next decade

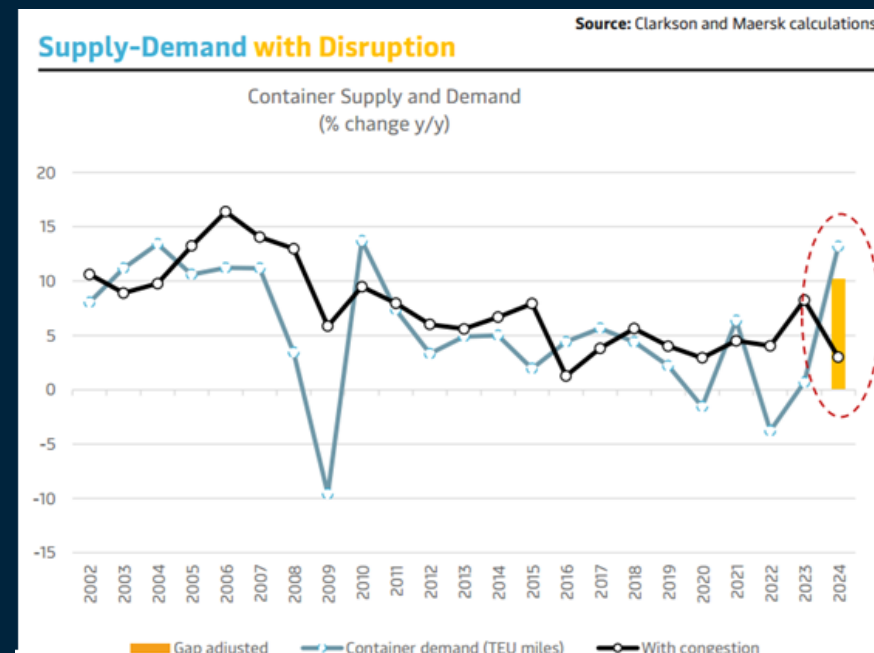
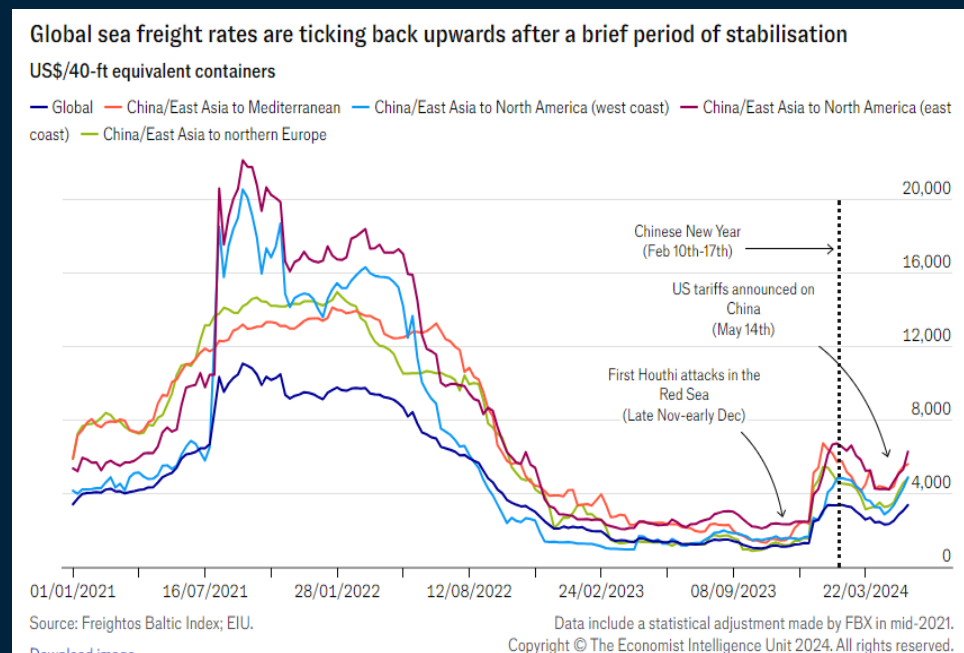
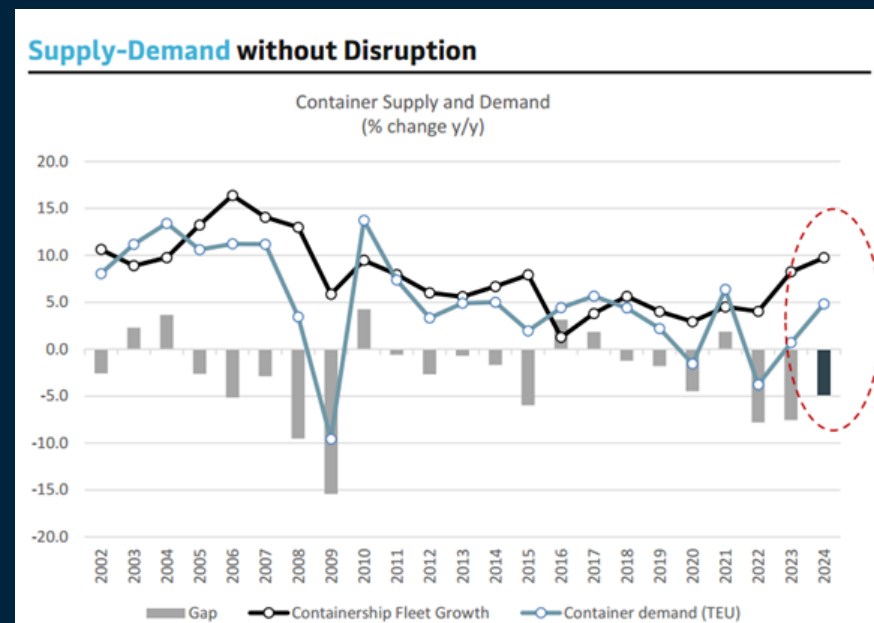
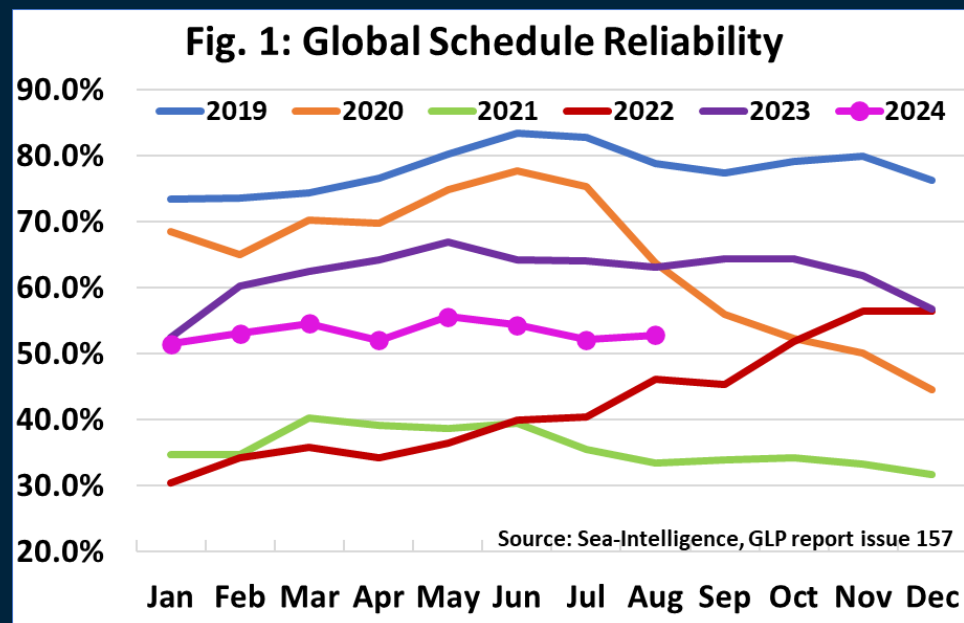


According to Maersk's 2024 Supply Chain Resilience Survey of over 2,000 European customers, **4 in 5 respondents identified geopolitical instability and interstate conflicts as the greatest potential disruptors to their supply chains this year.**

Complexity and Interconnectedness: Disruptions are increasingly intertwined, with environmental, geopolitical, and economic factors compounding impacts across supply chains



...Leading to Reduced Ocean Reliability, Capacity Constraints, and Volatile Freight Demand.



Shipping Resilience Strategies



Measure and Optimize Key Resilience Metrics

- Ocean Capacity: Ensure adequate capacity to manage fluctuating demand, especially in peak seasons or during disruptions. Dynamic capacity management can prevent bottlenecks and maintain operational flow.
- Ocean Reliability: Prioritize schedule integrity and on-time performance to avoid cascading delays, with network adjustments designed to uphold reliability even under strain.

Adaptive Network Design

- Flexible Route Planning: Develop alternative routes and port call options to adjust during disruptions, balancing both capacity and reliability needs.
- Hub-and-Spoke Model: Leverage strategic hubs to consolidate services and enable flexible "line haul transportation," ensuring capacity stability across networks.
- Capacity Allocation: Proactively adjust vessel allocations to manage demand fluctuations, supporting a reliable and adaptable network.

Advance Predictive Analytics and Real-Time Tracking

- Forecast Demand and Risk: Leverage data analytics to predict demand patterns and potential high-risk disruptions, enabling proactive adjustments to capacity and routes.

Terminal Resilience Strategies



Internal Resilience: Emphasizes the availability of a qualified workforce (e.g., dockworkers, pilots), robust IT/OT systems for seamless operations and cybersecurity, and adequate equipment (e.g., gantries, cranes) with optimized space management (e.g., yard utilization) to minimize congestion and ensure efficient cargo flow.

External Network Resilience: Requires strong governmental support to maintain key infrastructure connections, including highways, barge systems, rail, and multimodal links, ensuring ports can sustain resilient, flexible inbound and outbound flows.

Critical Infrastructure: Ports are vital to national economic stability, requiring government-backed resilience measures such as enabling cross-terminal and port cargo transit during crises, targeted infrastructure investments, resilience-focused regulations to guarantee essential goods and services, and cross-regional support frameworks to mitigate risks like cyber threats, labor shortages, and capacity constraints.



2024 Congestion at Singapore Port

In late May 2024, Singapore's port experienced significant congestion, with vessel waiting times extending up to seven days. To alleviate this, the Maritime & Port Authority of Singapore (MPA) worked with PSA to reactivate older berths and yards at Keppel Terminal. This reactivation increased the port's weekly handling capacity from 770,000 TEU to 820,000 TEU, effectively reducing vessel queuing times and improving operational flow at the port.

Logistics Service Provider(LSP) Resilience Strategies



Internal Resilience: Focuses on developing a skilled workforce, implementing advanced technology systems, and maintaining reliable equipment (e.g., trucks, forklifts) and facilities (e.g., warehouses) to handle fluctuating demand and ensure smooth operations.

Third-Party Risk Management: Strengthens resilience by assessing and managing risks associated with third-party providers, ensuring continuity even if external partners face disruptions.

Visibility & Data Integration: Enhances proactive decision-making through real-time data sharing and visibility tools with cargo owners, allowing for quick adjustments in response to disruptions.

Proactive Risk Monitoring: Implements continuous monitoring of potential risks across the supply chain to anticipate and address issues before they escalate.

Specialized Expertise: Builds contingency planning capabilities and specialized knowledge to help cargo owners mitigate risks, adapt quickly to change, and maintain supply chain continuity.



Thank YOU



MAERSK



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Profile

- ❖ Global Head of Business Resilience Consulting | Maersk
- ❖ Pioneered the Maersk Supply Chain Resilience Model
- ❖ Over 16 years in risk management & logistics
- ❖ Managed responses to Covid-19, Suez Canal Blockage, geopolitical tensions
- ❖ Associate Member, Business Continuity Institute (AMBCI)
- ❖ Certified Supply Chain Professional (CSCP)
- ❖ M.Sc. in Political Economy
- ❖ BCI APAC Collaboration in Resilience Award Recipient
- ❖ Expert reviewer for UNCTAD Port Resilience Guidebook

Reference

- ❖ [WEF Blog on the Red Sea Situation](#)
- ❖ [Maersk Blue Paper on Resilience](#)