

OECD Global Forum on Trade 2021

Stress testing global supply chains: Objectives, roles and approaches

26 October 2021 | Virtual conference



Issue

Disruptions caused by the COVID-19 pandemic have subjected supply chains to unprecedented levels of stress. Although evidence demonstrates that global supply chains have exhibited resilience, high-profile shortages of key inputs and rising shipping costs continue to be a source of concern. To reduce exposure to risk, many governments are therefore pursuing actions to ensure security of supply in critical industries.

Context

Testing the ability of specific firms to recover from supply disruptions is well defined in business literature, and generally managed at the firm-level. On the other hand, anticipating and minimizing exposure to risk at the product-specific and country-specific level has been less studied, and necessitates public-private consultation and coordination. Stress testing global supply chains at the product-specific and country-specific level can be understood as exercises that would simulate extreme but plausible conditions in order to measure the capacity of producers to withstand disruptions and to adjust to shifts in demand. This broader approach to stress testing supply chains could complement firm-level risk management strategies, build trust in the supply of critical products, and highlight areas for international cooperation to keep markets open.

There are a range of possible objectives and approaches to stress testing supply chains, and appropriate roles for the public and private sectors will vary. Governments may focus on sectors

they consider strategic; firms on products for which “out of stock” poses the biggest problem. Governments may focus at the national level on concentration of export or import markets, while firms may likewise consider alternative suppliers along their supply chains; both may be interested in identifying weak links, including on issues such as transport and logistics. Levels of redundancy or stockpiles may also be assessed. Governments and firms both recognize the value of greater visibility along supply chains, and have a shared interest in a strong, sustainable and inclusive economic recovery.

As further background, on-going OECD analysis of resilient supply chains is synthesized from a trade policy perspective on the portal “[Keys to resilient supply chains](#)”.

Objective

At its meeting of 7 April 2021, the OECD Trade Committee identified the importance of public-private dialogue on the stress testing of global supply chains. The objective of this Global Forum on Trade is therefore to share information on the objectives, roles (among governments and firms) and approaches to stress tests as means of promoting consultation and cooperation between the public and private sectors/

Participants in this interactive virtual meeting will address the questions for discussion below. Preliminary comments by lead speakers will be followed by open discussion. Outcomes will inform the OECD Trade Committee’s work on building resilient supply chains for all.



13h00-13h05 Introduction

Ulrik Vestergaard-Knudsen, Deputy Secretary General, OECD

13h05-13h20 Setting the scene

David Simchi-Levi, Professor, Massachusetts Institute of Technology

David Simchi-Levi is Professor of Engineering Systems at Massachusetts Institute of Technology. He has made significant contributions to the fields of supply chain, revenue management, and business analytics.

13h20-14h05 Session 1: Objectives of supply chain stress tests

Anticipating risks and minimizing exposure to shocks

This session is an opportunity to explore the main objectives of stress testing supply chains from the perspectives of governments and firms. Participants may wish to comment on distinctions between risks at the firm-level, product-level and national-level, and how greater visibility of potential shocks can bolster supply chain resilience. In particular, Lead Speakers and participants are invited to discuss:

- What are the primary supply chain risks from the firm and government perspective?
- How has COVID-19 changed supply chain risk assessment?
- What actions are being taken to anticipate these risks and minimize exposure?

Lead speakers:

- **Philippa Makepeace**, Director, Global Supply Chains, UK Department of International Trade
- **Gary Gereffi**, Director, Global Value Chains Center, Duke University
- **Leila Aridi Afas**, Director, Global Public Policy, Toyota
- **Gerry Collins**, Vice President, Supply Chain Resilience Development, Johnson & Johnson Supply Chain

Moderator:

- **Dawn Shackleford**, Assistant U.S. Trade Representative and Chair, OECD Trade Committee

Floor open for discussion

14h05-14h50 Session 2: Implementing supply chain stress tests

Building trust in the security of supply

This session will consider the implementation of supply chain stress tests beyond the firm-specific level, including approaches to organisation and participation. Participants may wish to comment on the role of public-private dialogue in facilitating the implementation of supply chain stress tests at the product-level and national-level. In particular, Lead Speakers and participants are invited to discuss:

- Can product-specific and country-specific stress testing of GVCs complement firm-level exercises to promote supply chain resilience?
- How can public-private cooperation build trust in the security of supply?
- What is the role of international cooperation in stress testing supply chains beyond the firm-level?

Lead speakers:

- **Tom Quillin**, Senior Director, Global Government Affairs, Intel Corporation
- **Jonathan Coppel**, Special Adviser, Australian Productivity Commission
- **Bublu Thakur-Weigold**, Chair of Logistics Management, ETH Zürich
- **Ryan Arens**, Global Commodity Manager, General Motors

Moderator:

- **Dawn Shackleford**, Assistant U.S. Trade Representative and Chair, OECD Trade Committee

Floor open for discussion

14h50-15h00 Session 3: Conclusion

The Moderator and the Secretariat will offer final thoughts on how discussion during the Global Forum on Trade can inform the Trade Committee's future work on building resilient supply chains for all.

End of the Global Forum