

Challenges and Strategies for Supply Chains in APEC over the Next Decade

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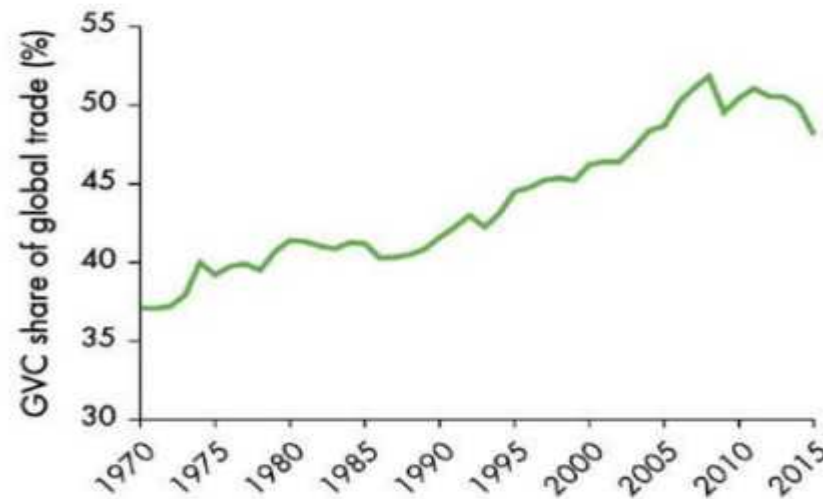
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Figure 1. Growth of GVC Trade (%)

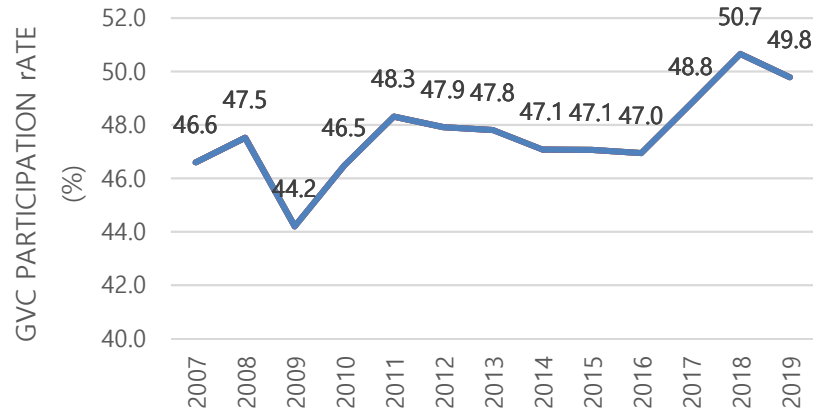


Source: World Development Report (2020)

- Over the past few decades, the world has benefited from a globally fragmented production network, known as the **Global Value Chain (GVC)**.
- Thanks to low transportation costs and trade liberalization, producers are able to source necessary items easily from other economies and build production hubs on a global scale.
- Naturally, the global supply chain has become more **complex**, and economies more **interconnected with each other**.

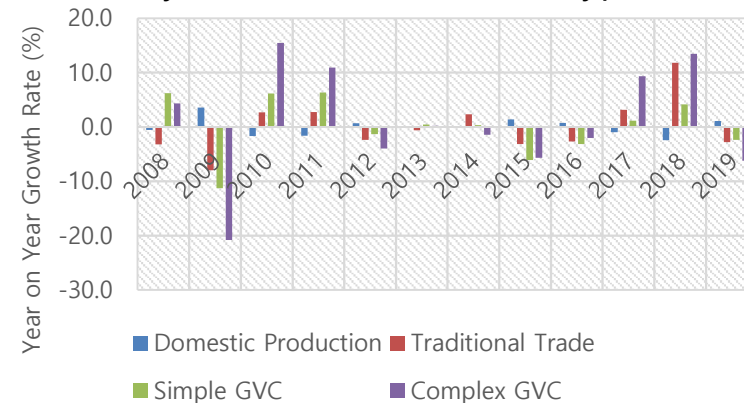
I. Recent Trends in Global Supply Chains (2)

Figure 2. World GVC Participation Rate (%)



Source: Hyoungmin Han et al. (2021)

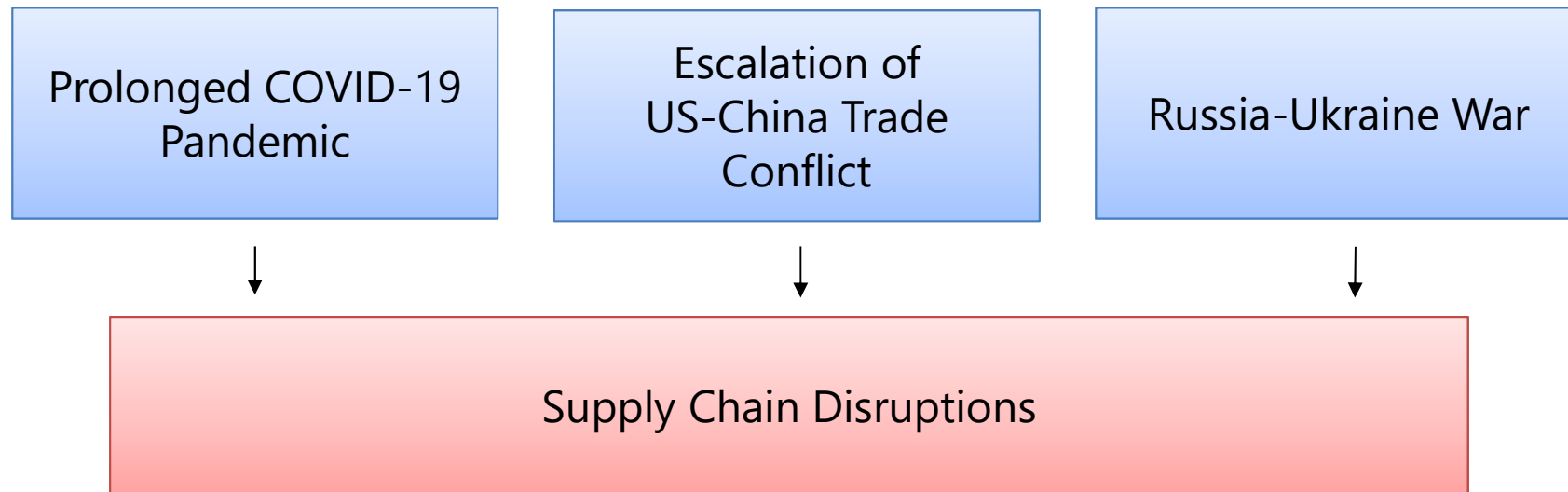
Figure 3. Production Activities by Value-Added Creation Type



Source: Hyoungmin Han et al. (2021)

- However, in recent years we observe that the rapid expansion of global production network is **stagnating**.
- **Complex GVC** is particularly more vulnerable to external shocks.
- Many factors are associated with this trend.
 - ① PRC's rising cost of labor and decline of trade share
 - ② Other external shocks, such as financial crises, the COVID-19 pandemic, geopolitical risks such as US-China & Russia-Ukraine conflicts, and so on

II. Supply Chain Disruptions



- More recently, due to the prolonged pandemic and geopolitical risks, the world is experiencing **disruptions in the supply chain**.
- A few well-known examples are as following.
 - ① Pandemic → global automobile industry (2020): Due to the spread of COVID-19 in China, production of wiring harnesses was suspended for a few days in China, causing supply chain disruption in the global automotive industry.
 - ② Ukraine War → global food industry (2022) : Ukraine is one of the key exporters of agri-commodities to the world. The war has caused price spikes and supply disruptions for agricultural products affected.

III. Recent Development of Supply Chain Disruptions

- The recent supply chain issue mainly stems from how (1) the world production chains are **highly interconnected** with each other, and (2) supply chains of key sectors are being **weaponized** based on political needs.
- Measures to counter the recent supply chain disruptions are being taken, such as **securing alternative supply chains or diversifying supply chains.**
- For instance, as the strategic competition between the U.S. and China intensifies, some economies are forming supply chains with close economies, referred to as "friend-shoring."
- These rapid changes in the global environment emphasize **resilience in the supply chain**, with cooperation at the **economic security** level prioritized over economic efficiency.

III. Recent Development of Supply Chain Disruptions

- Another recent issue in the global supply chain is **digital trade**.
- Digital trade continues to expand together with advances in information and communication technology, growing into a major component of the global production network.
- For instance, during the period of 2000–2017, 69 regional trade agreements out of 169 include independent chapters on digital trade.
- WTO members point out recent issues to digital trade development, such as ① **cross-border data movement**, ② **privacy protection**, and ③ **data localization**.

III. Recent Development of Supply Chain Disruptions

- In addition, the international community has been seeking strategies to respond to climate change and transition to a low-carbon economy, with this **green economy movement** affecting cross-border investment and global production networks.
- The global green movement raises issues such as ① **coordination of different opinions among member states or industrial sectors**, ② **development of support measures for regions and industries vulnerable to carbon neutrality**, and ③ **establishing eco-friendly investment standards and guidelines**.
- Especially, the transition to a low-carbon economy affects many developing economies with a high proportion of fossil fuel power generation, or industries with high emissions, and could reduce competitiveness or employment in certain economies or sectors.

IV. Future Strategy for Supply Chain Disruption in APEC

- APEC economies consist of both developing and developed economies. Many APEC economies are actively participating in the global supply chain in various forms, and serving as **global production hubs and markets**.
- Therefore, the recent issues associated with supply chain disruption are a regional task for APEC to solve.
- To overcome current supply chain issues, it is important to **rebuild a trustworthy supply chain network within the region**.
- Suggestions to achieve a resilient supply chain in APEC are as following.

IV. Future Strategy for Supply Chain Disruption in APEC

- First, **international cooperation between member economies** is essential. Why?
Because supply chain disruptions cannot be solved by any economy on its own.
- Thus, **establishing a regional dialogue on supply chain issues** can be a good start. The dialogue can be a helpful tool to jointly respond to supply chain issues in the future.
- Second, **maintaining trade openness** between regional economies is important as producers can easily find alternative suppliers within the region.
- Third, **reinforcing cross-border labor mobility** is also crucial. To diversify the supply chain, people need to visit local factories to change production input and technology in case of external shocks.
- Lastly, APEC member economies can jointly respond to long-term supply chain issues, such as **digital trade** and the **global green economy movement**.
- The transition to a digital and low-carbon society is a matter for all APEC members. Thus, it will be important **to produce a global digital trade code and to provide coordinated policy support for carbon-intensive economies and industries.**

Thank you.
