



How Covid-19 Affects Supply Chain in U.S

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Covid-19: Supply Chain Disruption



Definition

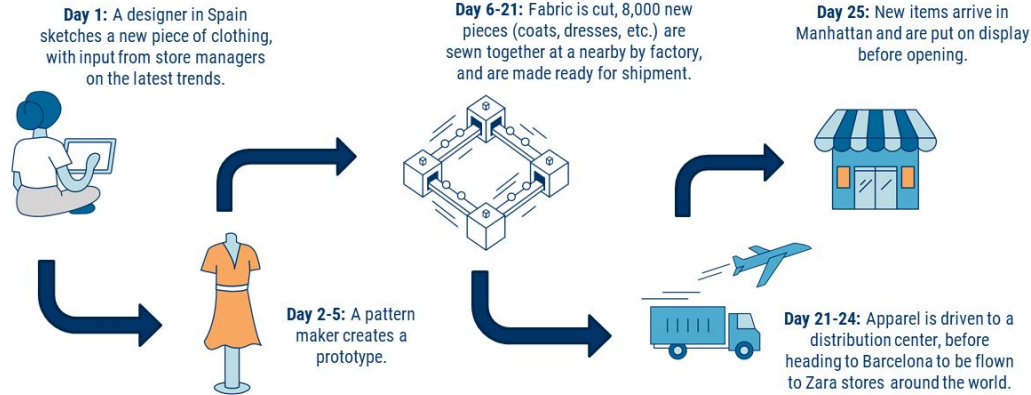
Definition: The supply chain is a series of activities between a company and its suppliers which involve planning, coordinating and producing a specific product and distributing it to customers.

1. Domestic economy model (before 1970s)
2. Global factory model (1970s - now)

Example: Zara

Fast fashion's speedy supply chain quickly caters to new trends

Fast fashion retailer Zara, owned by Spain-based Inditex, can get a piece of apparel from a design workshop in Spain to a display rack in a Manhattan store in **25 days**.



Supply Chain Disruption

Definition: Supply chain disruption is a major breakdown on supply chain production or distribution.

- Risks are characterized by a very strong and immediate impact on the SC network design structure since some factories, suppliers and DCs, and transportation links become temporarily unavailable.

Types of disruptions:

1. Pandemics
2. Natural disasters
3. Transportation failures and delays.
4. Product problems.
5. Price fluctuations.
6. Cyber attack.

Data

- All the data are gathered from UN Comtrade.
- Over 100,000 observations from 1995 to Apr. 2020.

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Intermediate Goods

According to BEC standards, the intermediate goods include:

- 111* Food and beverages, primary, mainly for industry
- 121* Food and beverages, processed, mainly for industry
- 21* Industrial supplies not elsewhere specified, primary
- 22* Industrial supplies not elsewhere specified, processed
- 31* Fuels and lubricants, primary
- 322* Fuels and lubricants, processed (other than motor spirit)
- 42* Parts and accessories of capital goods (except transport equipment)
- 53* Parts and accessories of transport equipment

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Figure 1



Figure 2



Figure 3

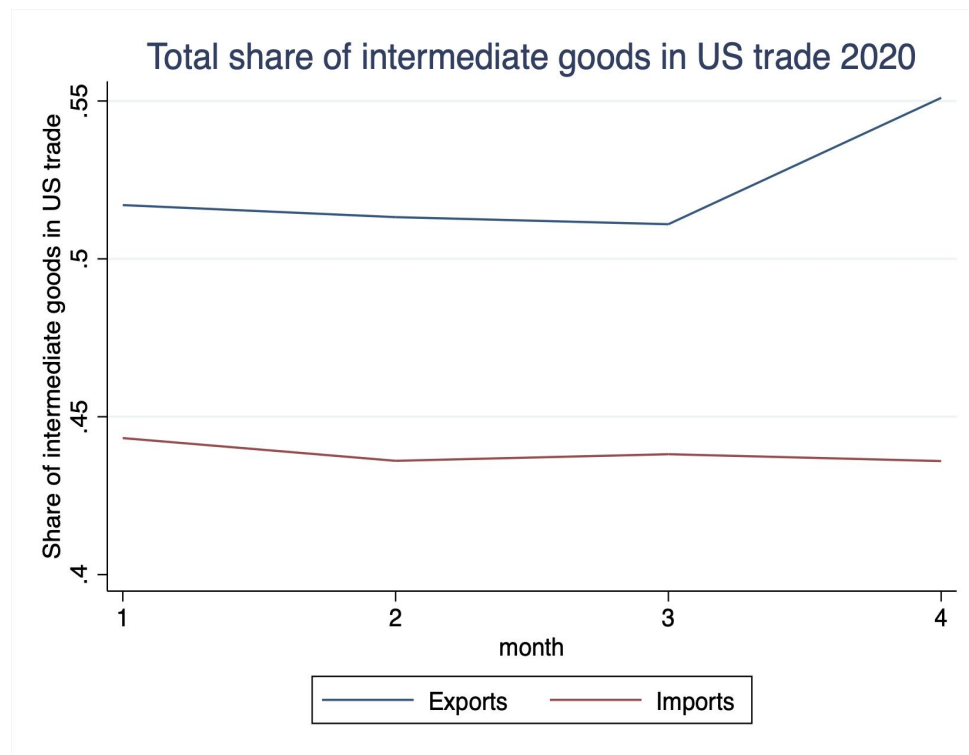


Figure 4

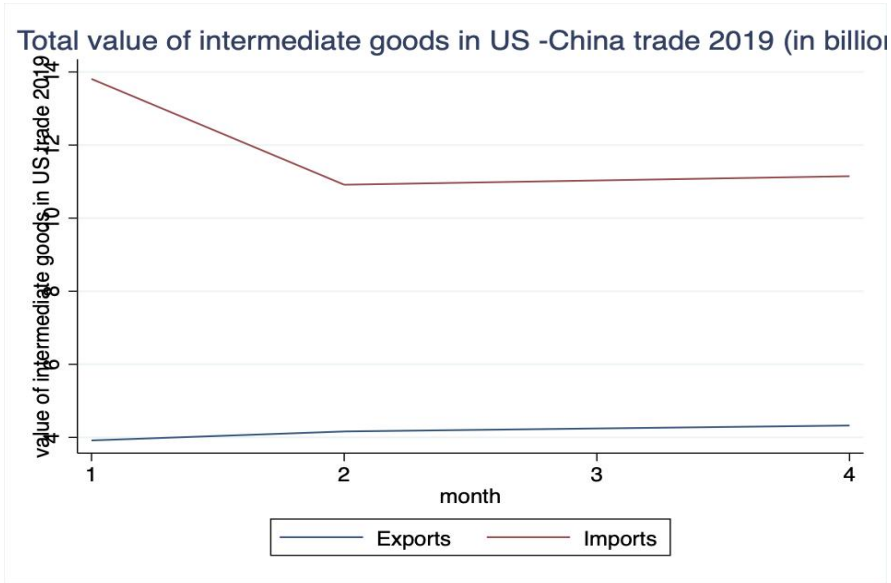


Figure 5

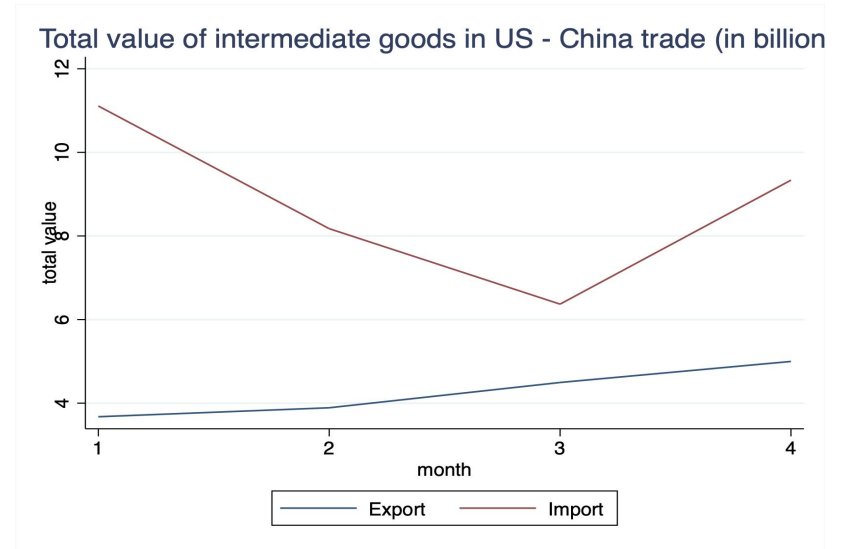


Figure 6

China Lost Significant Market Share in March 2020						
	Share of U.S. Imports (Percent)			Value (U.S. Dollars in Millions)		
	Mar-19	Jan-20	Mar-20	Mar-19	Jan-20	Mar-20
	(1)	(2)	(3)	(4)	(5)	(6)
Textiles						
China	18.4	26.8	14.1	2,023	3,405	1,384
India	7.7	6.9	11.1	848	875	1,088
Bangladesh	5.4	5.3	6.3	599	671	624
Footwear						
China	42.9	45.5	26.0	815	1,351	514
Vietnam	21.7	25.3	35.0	412	750	693
Indonesia	10.4	8.0	13.9	197	237	276
Machinery						
China	16.8	18.8	9.3	7,691	8,536	4,421
Vietnam	13.3	11.8	14.6	6,090	5,217	6,992
Germany	4.8	6.3	11.4	2,183	2,776	5,468

Source: Author's calculations, based on data from Descartes Datamyne.

Table 1

Conclusion

- The U.S companies are unlikely to move supply chain back to U.S because they find alternative suppliers from other countries that are less impacted by the pandemic such as Vietnam and Bangladesh.
- The pandemic will likely accelerate the process of diversifying companies' sources of supply to guard against such disruptions.

Thank you!