

# Trade War & Global Supply Chain (GSC) Relocation

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# US-China Trade War and GSCs

- For East Asia, the US-China trade war is arguably the main factor affecting GSCs/GVCs
- COVID-19 may increase the amount and hasten the pace of the restructuring, but it does not account for all of it
- Restructuring started before the trade war, with rising wages and tightening of environmental rules in China.
- Initial motivation, when only anecdotal evidence was available, was to answer these two, related questions:
- (1) Why did the restructuring of GSCs appear to take place so soon after the first tariffs were raised in the trade war?

# US-China Trade War and GSCs

- (2) How can a relatively small bilateral tariff seem to cause so much disruption to GSCs, resulting in costly relocation?
- For (1): It could be rapid if the trade war is perceived as symptomatic of larger, underlying forces at play, which are likely to endure beyond any single dispute.
- If so, the quicker the adjustment, the lower the cost
- For (2): Even a relatively small tariff can have big effects on GSCs – depending on the value-added (VA) share.
- While the tariff is applied on 100% of the value of the product, it is just the VA share in China that triggers it.

# Value Added (VA) in China of Exports to the US, and Effective Rate of Spillover Protection (ERSP), 2018

Column1	Column2	Column3	Column4	Column5	Column6
	VA (\$ m)	VA (%)	ERSP 1	ERSP2	ERSP3
	2018	$\alpha$	T=15	T=25	T=30
Food, Beverages, and Tobacco	6,273	7.4	203	338	406
Textiles and Clothing	41,329	31.9	47	78	94
Leather and Footwear	24,037	52.1	29	48	58
Wood and Wood Products	3,220	22.3	67	112	134
Paper, Printing, and Publishing	3,620	10.4	145	241	289
Chemicals and Chemical Products	20,479	9.9	151	252	302
Rubber and Plastics	11,093	21.1	71	119	142
Other Non-Metallic Minerals	6,992	27.4	55	91	110
Basic Metals and Fabricated Metal	23,231	14.5	103	172	207
Machinery, Nec	33,736	22.3	67	112	135
Electrical and Optical Equipment	159,459	40.5	37	62	74
Transport Equipment	20,296	5.4	279	465	558
Manufacturing, Nec.	29,660	28.1	53	89	107
<b>TOTAL</b>	<b>383,424</b>	<b>30.9</b>	<b>49</b>	<b>81</b>	<b>97</b>

Source: Author's calculations. Data from ADB Multi-Regional Input–Output Tables; methodology by Wang, Wei, and Zhu (2017)

# Shares of VA and Fixed Costs and Relocation

- Apart from the VA share, need to consider shares of fixed (sunk) versus variable cost in total cost.
- 3 years later, we have more than anecdotal data.
- In labour-intensive industries like TCF, low shares of sunk costs makes them more footloose, unlike complex, capital-intensive industries like machinery & transport equipment
- Therefore, GSCs less likely to relocate if shares of VA and/or fixed costs are high (less divisible technology)
- Despite bilateral tariffs having a magnified impact within GSCs, disruption reduced by eco-system-related fixed costs. GSCs may be more resilient than they appear

# Thank you for listening!

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