



# Global Value Chains and Covid-19

Giorgio Barba Navaretti,

*University of Milan, LdA and CEPR*

EIB

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# Issues

- State of the art: Geography: where and what? Industries: which ones?
- Firms' perspective: the cost of distance
- Government's perspective: transmission of shocks and re-shoring
- Government's perspective: essential public goods and re-shoring
- Reshoring how?
  - Heterogeneous countries
  - Heterogeneous firms

# A regional affair, but big players are very pervasive.... Especially China

	Factory North America			Factory Europe								Factory Asia									
	usa	can	mex	deu	gbr	fra	ita	esp	tur	nld	che	chn	jpn	kor	ind	tw	aus	idn	bra	rus	sau
Factory North America	usa	1.6	1.6	1.0								6.5	1.2	1.0							
	can	14.1		1.4	1.2	0.5						7.2	1.2	1.1		0.5					
	mex	15.5	1.0		1.7		0.6	0.6				14.3	2.3	2.6	0.7	1.1			0.6		
Factory Europe	deu	1.6				1.0	2.0	1.9	1.1	0.6	1.3	1.0	4.6	0.9	0.6						0.8
	gbr	2.6	0.5		3.9		1.6	1.2	1.0	0.6	1.0		4.8	0.6	0.6	0.6					
	fra	2.4			5.7	1.2		2.3	1.9		0.8	0.6	4.1	0.6							0.5
	ita	1.1			4.9	0.8	2.3		1.6	0.8	0.8	0.6	4.6		0.7	0.6					1.2
	esp	1.2			4.5	1.2	3.3	2.3		0.6	0.8		4.6	0.6	0.6	0.6					
	tur	1.1			2.1	0.6	0.8	1.2	0.8				5.0		1.3	1.0					2.0
	nld	1.8			5.0	1.2	1.2	0.9	0.7				3.7	0.7							0.9
	che	2.4			8.2	1.6	1.9	3.1	1.1	0.6	0.7		5.2	0.9		0.5					
Factory Asia	chn	1.5			0.9								1.9	3.0		1.9					
	jpn	1.4			0.7							6.3		1.2		0.6					
	kor	2.9			1.8		0.5					16.4	4.4		0.6	1.8				0.6	
	ind	2.1			0.9	0.5						7.2	0.9	1.5		0.5				0.7	0.5
	tw	2.7			1.3							13.8	6.4	3.4	0.6			0.8		0.6	
	aus	1.8			1.0							7.1	2.2	1.5		0.5					
	idn	0.9			0.5							7.4	2.1	1.9	0.6	0.7					
	bra	2.2			1.0							4.6	0.5	0.6	0.6						
	rus	1.0			1.9		0.6	0.8				5.7	0.8	0.8							
	sau	1.3			1.8	0.9	0.5					3.8	0.6	1.0	1.0						

Source: Richard Baldwin, Rebecca Freeman, «Supply chain contagion waves: Thinking ahead on manufacturing ‘contagion and reinfection’ from the COVID concussion», Voxeu.org, April 2020

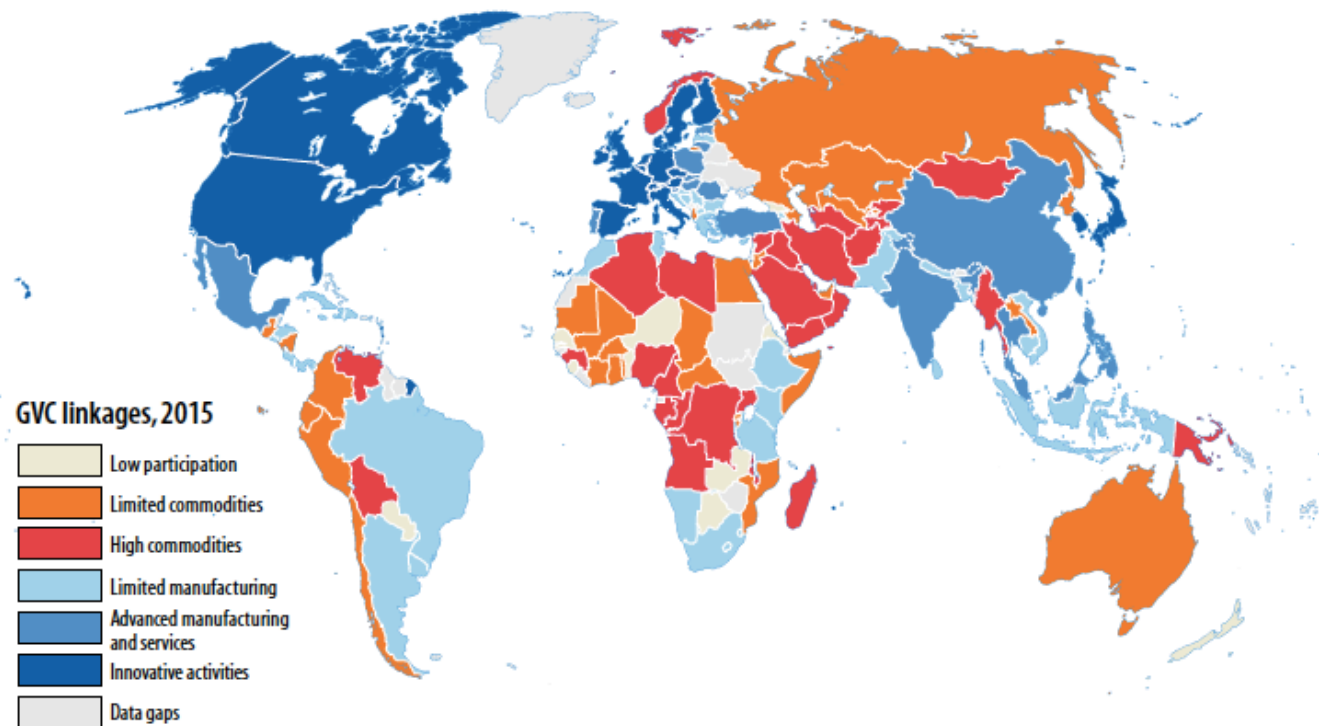
elaboration of OCED Inter-Country Input Output Tables (available online at <https://www.oecd.org/sti/ind/inter-country-input-output-tables.htm> [3]).

Notes: The figures are the value-added share of direct and indirect inputs from the column nation in the row nation’s total manufacturing output.

# Who does what?

## A pretty neat division of labour

Figure 3: Uneven sectoral specialization in GVCs

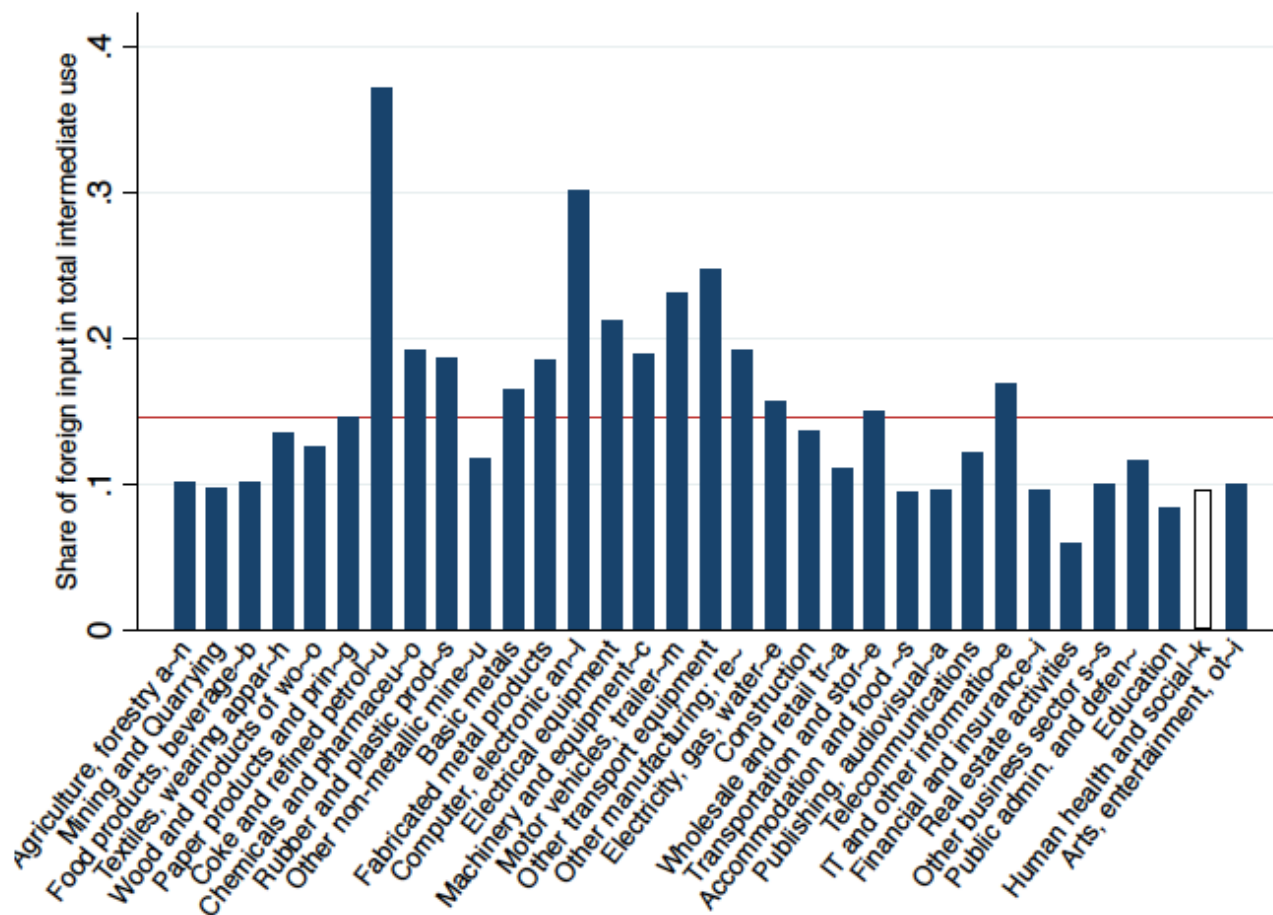


Source: World Development Report (2020, Chapter 1)

Note: Based on the GVC taxonomy for 2015 developed in Box 1.3 of the World Development Report (2020).

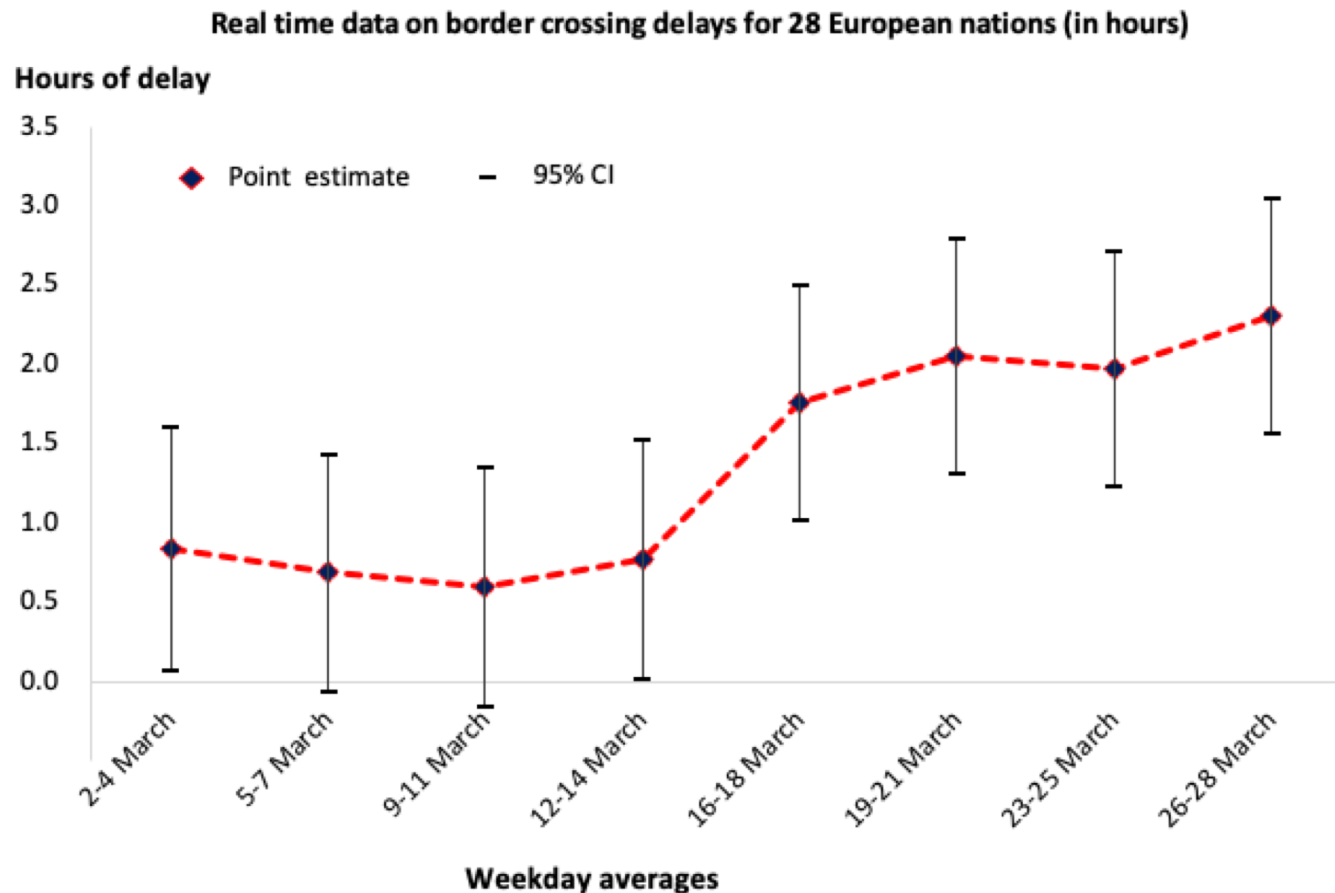
# What industries?

FIGURE 2: Share of Foreign Intermediates in Sectoral Intermediate Use



# Firms: the cost of distance

**Figure 2** Real time data on border crossing delays for 28 European nations (in hours)



Source: Richard Baldwin, Rebecca Freeman, «Supply chain contagion waves: Thinking ahead on manufacturing 'contagion and reinfection' from the COVID concussion», Voxeu.org, April 2020

# Governments

## Transmission of shocks and re-shoring

Bonadio, Huo, Levchenko, Pandalai-Nayar 2020

- Simulate a global lockdown as a contraction in labor supply (controlling for share of telework):
  - 31.5% drop in GDP=> 34.7% attributed to foreign transmission
  - 32.3% drop in GDP with re-nationalized supply chain: national economy affected by the virus anyway
  - It depends on the geographical spread and intensity of the shock

# Governments

## Essential public goods

- Can we clearly identify essential products?
- Should they be considered public goods?
- Does re-shoring them make sense?
  - e.g. Masks
    - ⇒ Combine production of capital intensive meltblown fabric rolls with labour intensive assembling
- Can re-shoring of essential products be market based?



# Reshoring.... How?

## Heterogeneous countries

- Uncertainty induced trade costs: same effect for all?
- Asymmetries: large core countries vs small peripheral ones
  - Upward vs downward production stages
  - Intensity of GVCs...
  - Source of comparative advantage

# Reshoring How?

## Back to firms: not just open market transactions

Table 1. An Overview of Some Key Concepts

	Broad / Traditional	Narrow / Relational
<b>Definition</b>	Basic: Increased use of <i>foreign value added in production</i> , especially in production destined for exports	Basic: Increased use of foreign value added in production, especially in production destined for exports, but <i>focusing on inter-firm and intra-firm transactions involving customized inputs and relational contracting</i> (distinct from anonymous, spot trades in homogeneous goods)
<b>Conceptual framework</b>	GVCs essentially entail a <i>finer international division of labor</i> (trade in parts and components, tasks)	GVCs entail a <i>finer international division of labor</i> , but also involve: <ul style="list-style-type: none"> <li>- nontrivial matching between importers and exporters</li> <li>- relationship-specific investments by all parties</li> <li>- inter-firm and intra-firm flows of goods, technology and credit in environments with limited contractual security</li> <li>- governed by incomplete contracts enforcement</li> </ul>
<b>Empirical measures</b>	<ul style="list-style-type: none"> <li>- Country- and industry-level measures of (i) foreign value added in production and in exports (related to backward and forward GVC participation indices);</li> <li>- Analogous measures at the firm-level</li> </ul>	<ul style="list-style-type: none"> <li>- Case studies;</li> <li>- Analyses of intrafirm trade flows or global ownership patterns;</li> <li>- Empirical work on persistence in firm-level trading relationships;</li> <li>- Measures based on HS products (anonymous vs relational)</li> </ul>

Implications of a firm level perspective:

- *Populist Firepower*  
⇒ Distributional issues (superstar)  
⇒ Uneven bargaining power in relationship specific transaction
- *Resilience*  
⇒ Relationship specific sunk costs

Source: Elaborated by author based on contents of article.

Source: Pol Antras, «Conceptual Aspects of Global Value Chains», forthcoming, World Bank Economic Review