



RUSSIAN FOREIGN  
TRADE ACADEMY



# Global Value Chains in time of COVID pandemic

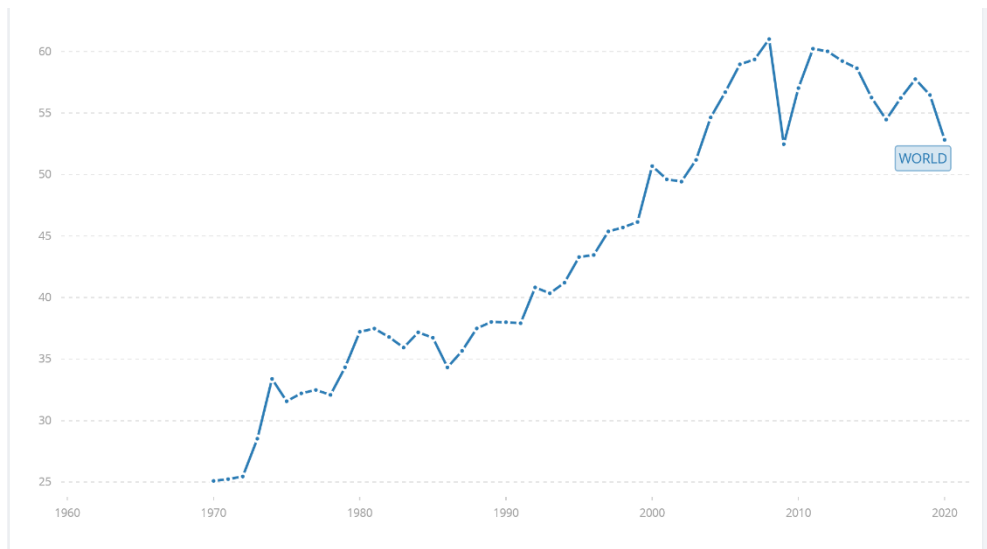
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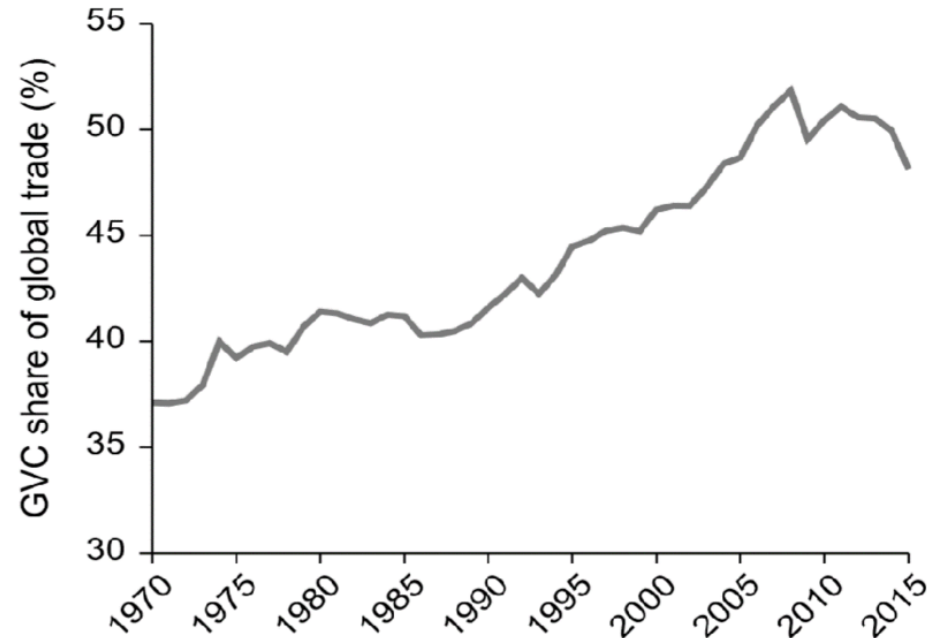
# Trade and GVC before 2020: starting from 2008 growth in overall trade was weak and GVC trade contracted

Global trade to GDP ratio, 1970-2020



Source: WDI,  
World Bank

GVC share of global trade (%), 1970-2015



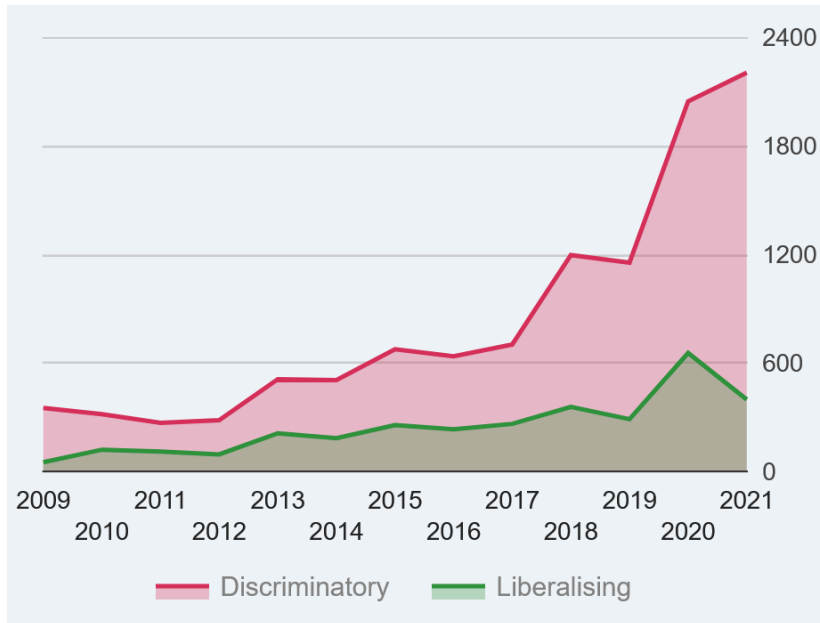
Source: J.  
Melo and  
A.Twum, 2020

- International trade and production started slowing down during the 2010s
- Trade in intermediate products showed growth trend during the 1990s and 2000s, but from 2010 it started to stagnate, accounting for 45% of total merchandise trade in 2017

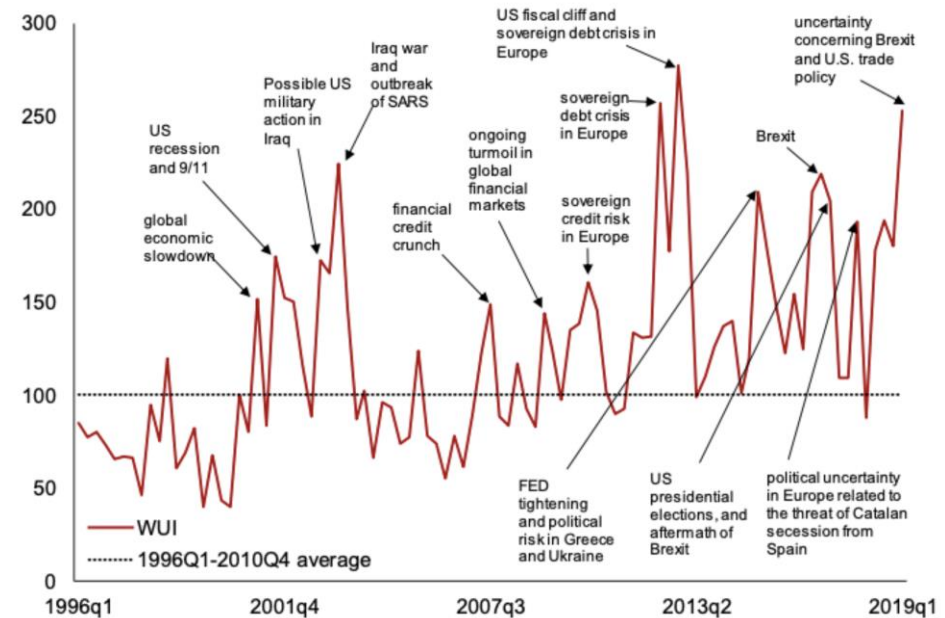
# Trade policy space restricted during financial crisis and discriminatory bias did not improve afterwards

## COVID pandemic emphasized the protectionism trend

New interventions implemented each year worldwide, (Global Trade Alert)



World Uncertainty Index (Ahir, Bloom, Furceri , 2019)



- Dynamics of trade instruments applied by countries shows that discriminatory trade measures have been growing more rapidly than liberalizing measures since the crisis and these measures have impacted trade (Evenett and Fritz, 2015).
- Trade uncertainty, as measured by perceptions in the press, also increased during the period 2009-15.

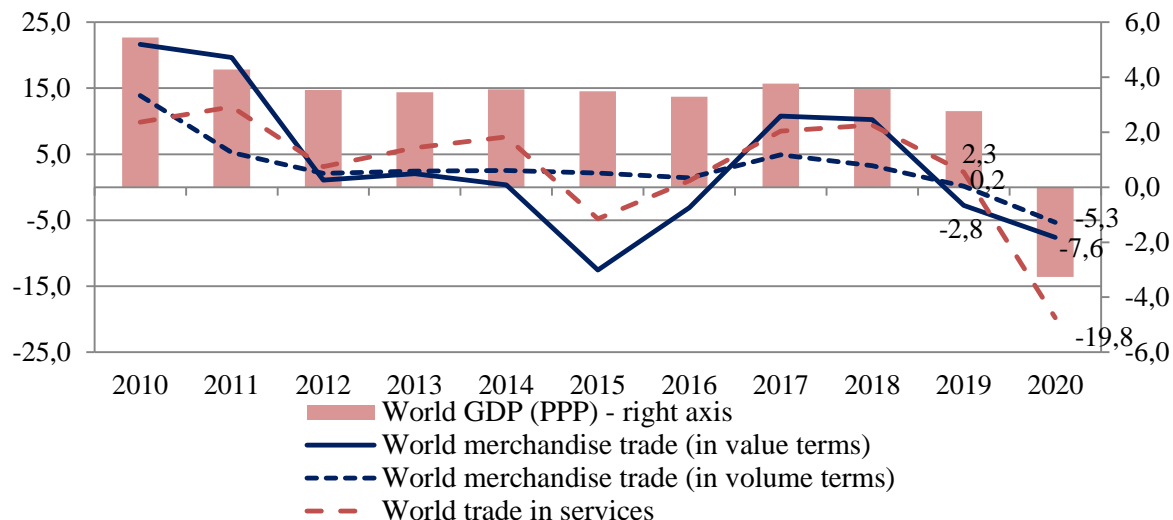
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# Effect of pandemic on international trade and GVC

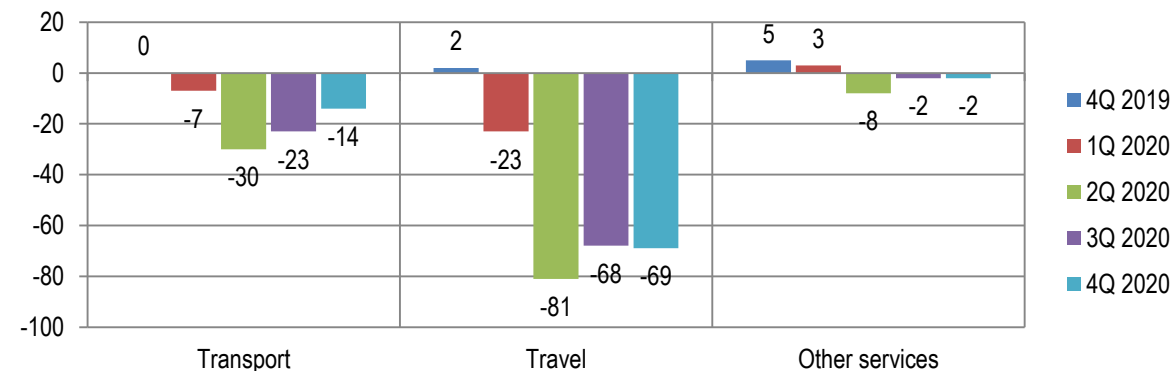
- Labor market effect because of quarantine measures
- Demand shock – severe and diverse across sectors
  - negative in personal services
  - positive in delivery services, manufacturing of medical products etc.
- Increase in protectionist measures, mostly on export
- Bans on cross border travels
- Very high uncertainty

## 2020: decline in trade by 7,6% and induced structural changes (trade in services fall by 19,8%)

### 2021: trade revival and continuing structural changes



Global changes in services (% Y-o-Y)

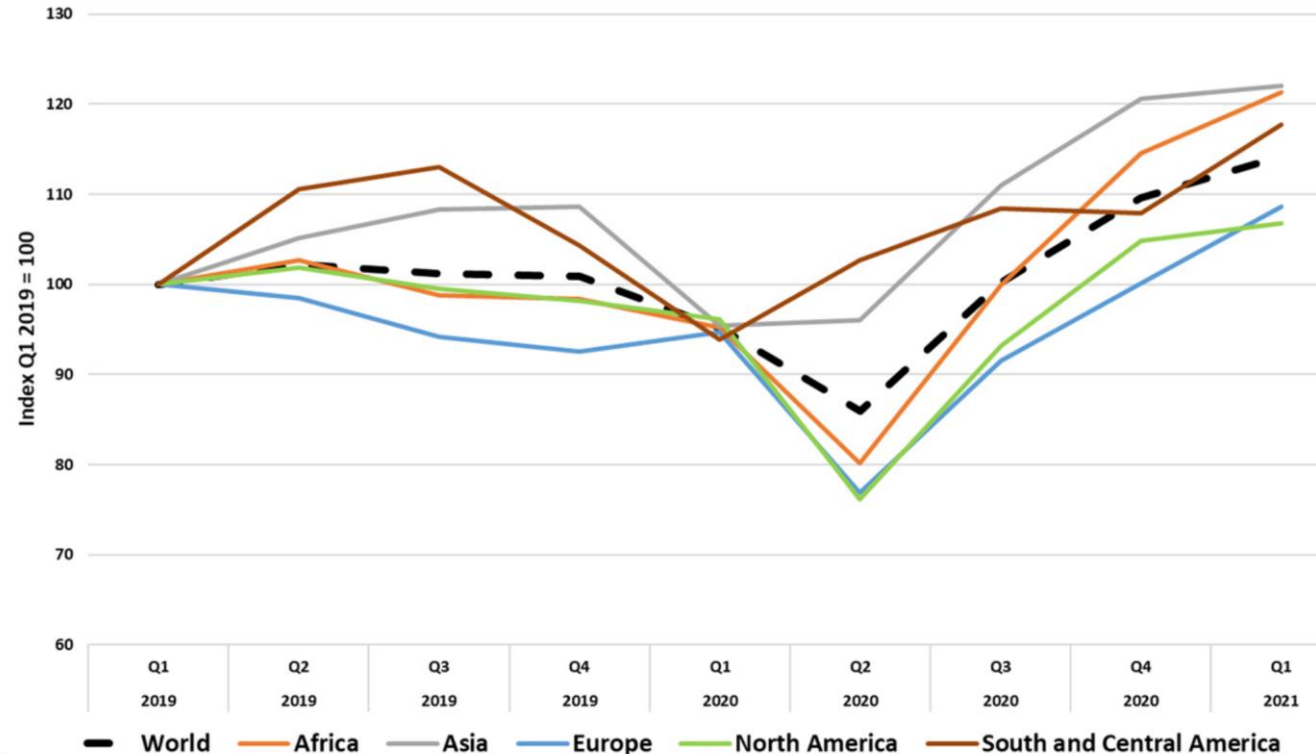


### UNCTAD 3Q 2021:

- **Trade increase by 24% to Q3 2020 (13% to Q3 2019): goods - 22% to Q3 2020, services – 6% к Q3 2020.**
- Restoration of trade is
  - geographically unequal:
    - UK, Mexico, Japan below average,
    - Vietnam, China, Taiwan – above average
  - **Sectorally unequal:**
    - **Hight increase in mineral products** (51%), energy (79%), metals (43%).
    - Minimal increase in automobiles (10%), communication equipment (8%).
    - Fall in textile (-14%).

# Despite all skeptical expectations activity of supply chains indicates substantial resilience

Exports of intermediate goods by region, 2019Q1-2021Q1



Source: Trade Data Monitor (98 reporting economies, including estimates for Africa).

- 1Q 2021: intermediate goods trade rose by 20% Y-on-Y
  - the highest growth in Asia (28 % due to 41 % increase in Chinese exports of industrial intermediate goods, mainly parts for information communication technology equipment and photovoltaic cells)
- the most resilient supply chains are
  - ores, precious stones and rare earths, with exports increasing by 43 per cent in the first quarter,
  - food and beverages (up 22 per cent).
- exports of transport parts shows the weakest recovery at 6 per cent

Source: WTO, Sept 2021

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**Studies indicate that pandemic threat to GVC might be overestimated in discussion.**

**Effect of pandemic equally affected within-border and cross-border supply chains**

Lin and Freeman ([2020](#)) : two main shocks of the pandemic on production and GVCs: labor market and changes in demand expectations. Predict decline in GDP, imports and exports. Regionalization of GVC.

- Javorcik ([2020](#)): re-engineering of GVC because of China lockdown.
- Eppinger et al. ([2020](#)): the impact of the supply shock in China on international trade and GVCs. Expect moderate welfare losses in countries beyond China.
- Castañeda-Navarrete et al. ([2020](#)): labor market and demand effects in apparel sector.
- Foong and Chang ([2020](#)): diversification of regional partners will reduce concentration and help to deal with potential future risks.
- Bonadio et al. (2020): welfare loss of renationalization of GVC is 30.2%, while losses due to international linkages during COVID crisis is 29.6%.
- OECD (2020): supply-chain shocks will more strongly reduce real GDP, consumption, and production in national regime than in international
- Arriola et al. (2020): less connected world has high efficiency losses, is more vulnerable to shocks, export is more geographically concentrated.

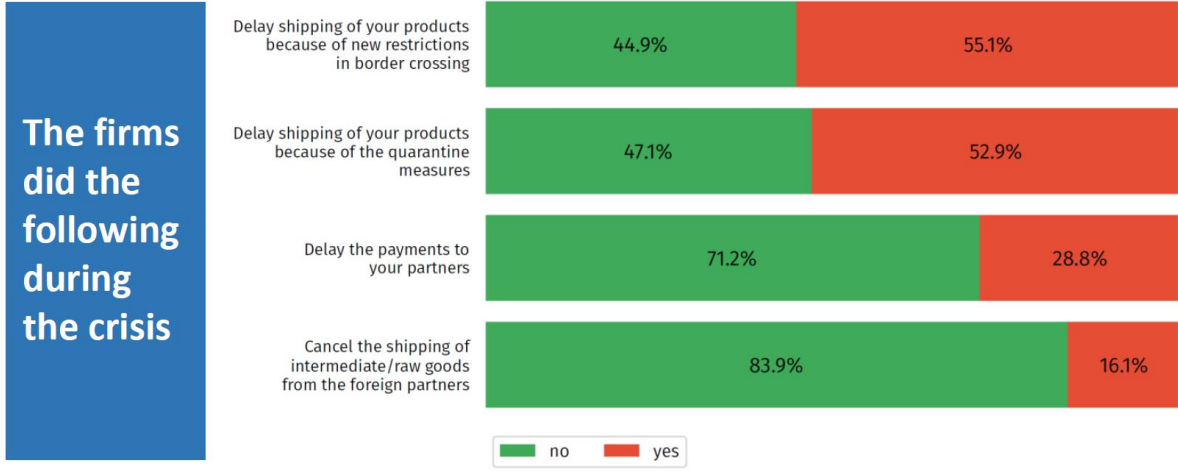
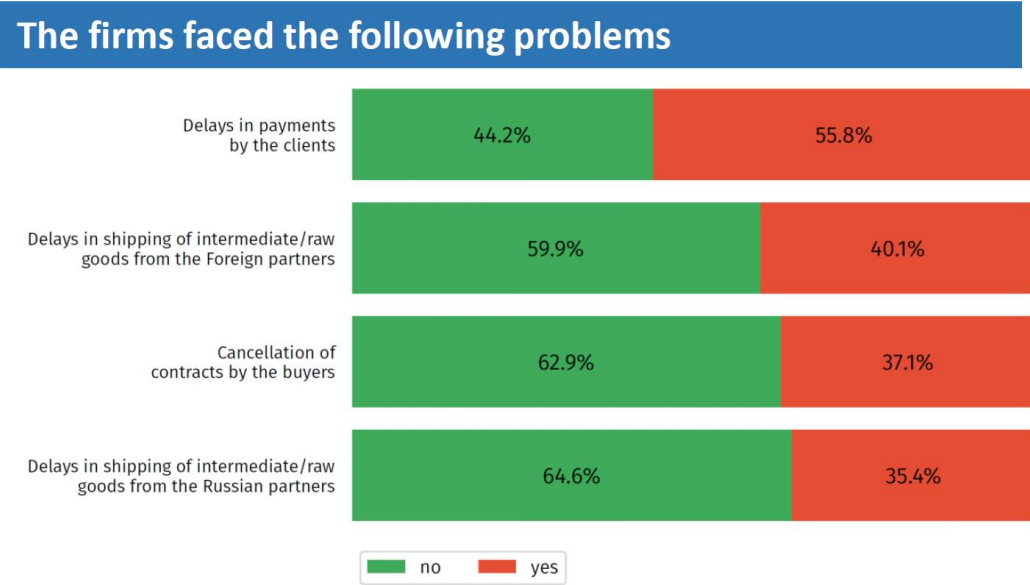
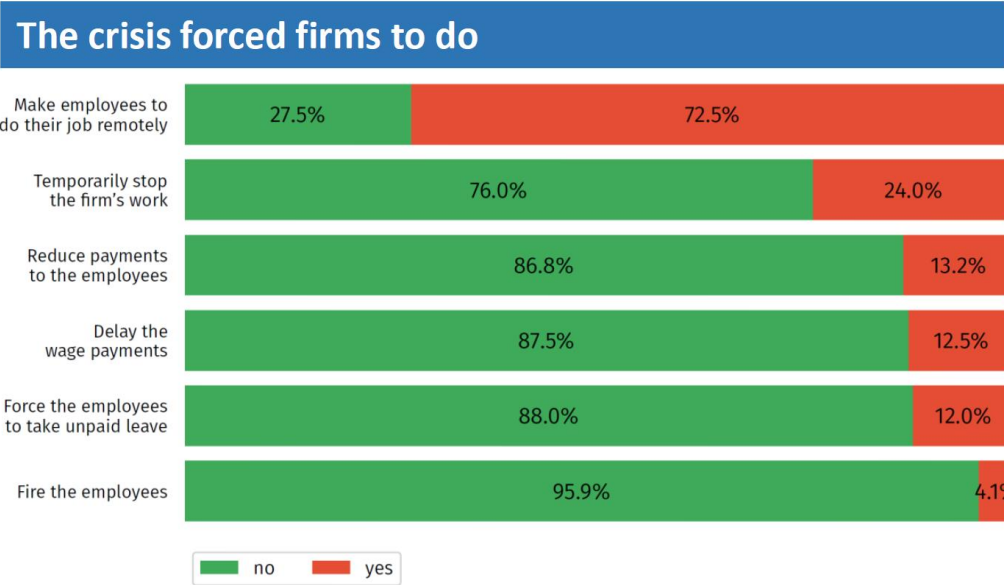
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## CEFIR NES survey of exporters in 2020

- We trace channels through which pandemic affected an everyday business of Russian firms and how they adjusted to it.
- We find that international exposure on supply side did not increase the resilience of Russian firms:
  - Probabilities of supply disruption are similar for foreign and domestic supplier
- However there is a difference on output side
  - exporting companies faced growth opportunities in domestic market more often than in foreign destinations
  - significant losses happened more often in foreign markets.
- These findings are consistent with the fact that travel bans contribute to the decline in adjustment potential of firms on international markets



# Russian exporters in 2020: problems and adjustments



Source:  
CEFIR NES  
estimations  
based on  
exporters  
survey data

**Adjustments in sales by exporters: probability of sale increase in foreign market is lower than in domestic, while probability of sale losses are higher.**

Changes in Sales in 2020	Share of respondents (%) which experienced	
	Domestic market	Foreign Market
Increase by more than 50%	4,6	0,8
Increase by 25-50%	7,9	1,1
Increase by less than 25%	14,2	6,5
No changes	12,4	11,8
Decline by less than 25%	44,6	53,1
Decline by 25-50%	13,9	21,3
Decline by more than 50%	2,5	5,3

Distributions of sale changes on **domestic** and **foreign** markets are statistically different.

On average, sales declines in domestic market by 5%, while on foreign – by 17%.

# What is special in COVID crisis about GVC relative to domestic supply chains?

- Access to foreign markets was hampered by restrictions on international travels, which are essential for readjusting contractual relations to explore new opportunities brought by crises (Cristea, 2011).
- Without personal interaction new contracts were more difficult to launch so this reduced opportunities to adjust foreign sales compared to domestic ones.
- Relaxing travel restrictions will have strong effect on GVC restoration

## Channels of COVID crisis effects on firms

- Labor market effect because of quarantine measures
- Demand shock – severe and diverse across sectors
  - negative in personal services
  - positive in delivery services, manufacturing of medical products etc.
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Reshoring is not an answer to the problem  
ESG in supply chains is more promising