

The COVID-19 Pandemic and its Impacts on Cambodia's exports and Supply Chains

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Objectives

- Examine the dynamics of Cambodia's exports during the COVID-19 pandemic
- Empirically assess the impact of the pandemic on Cambodia's participation in global value chains

How the pandemic reshape the global trade landscape

1) *Increases trade cost*

- Border closure, stricter sanitary measures → delays to international cargo transport
- Port closure and travel restrictions affect maritime and air transport
- Bulk freight rate and container freight rates have risen and reached the highest level

2) *Causes unprecedented disruption to the GVC*

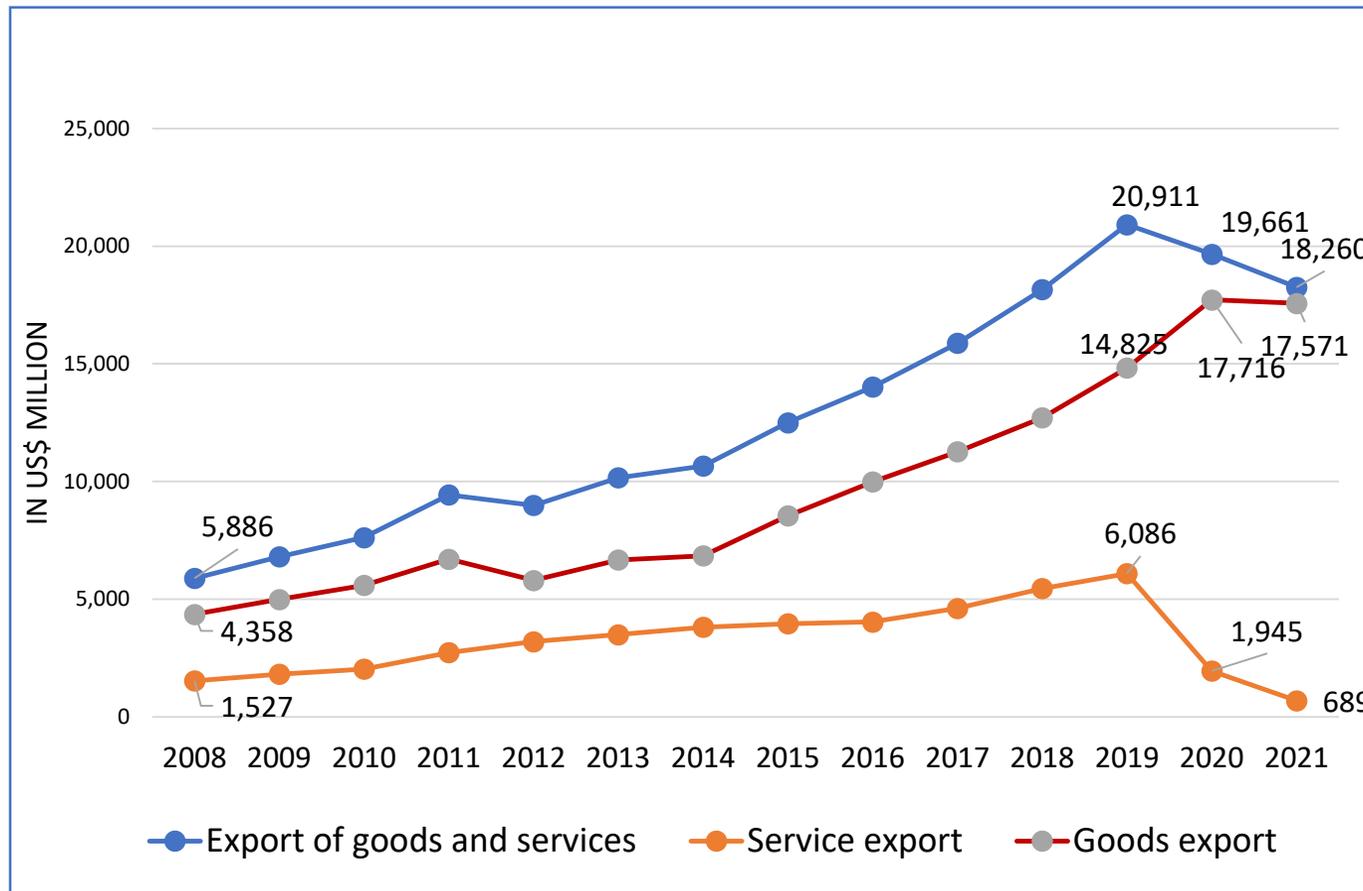
- Restrictions dramatically reduce labour supply and production → causing input shortage and supply chain disruption
- Growing protectionism and rising trade cost worsen the resiliency and efficiency of GVC

3) *Spurs a more protectionism and non-collaborative trade practices*

- As of April 2020, 80 countries had imposed export bans on some health-related products
- GTA: rising harmful policy interventions at global level

Cambodia's exports during the COVID-19

Fig 1: Cambodia's export trend 2008-2021

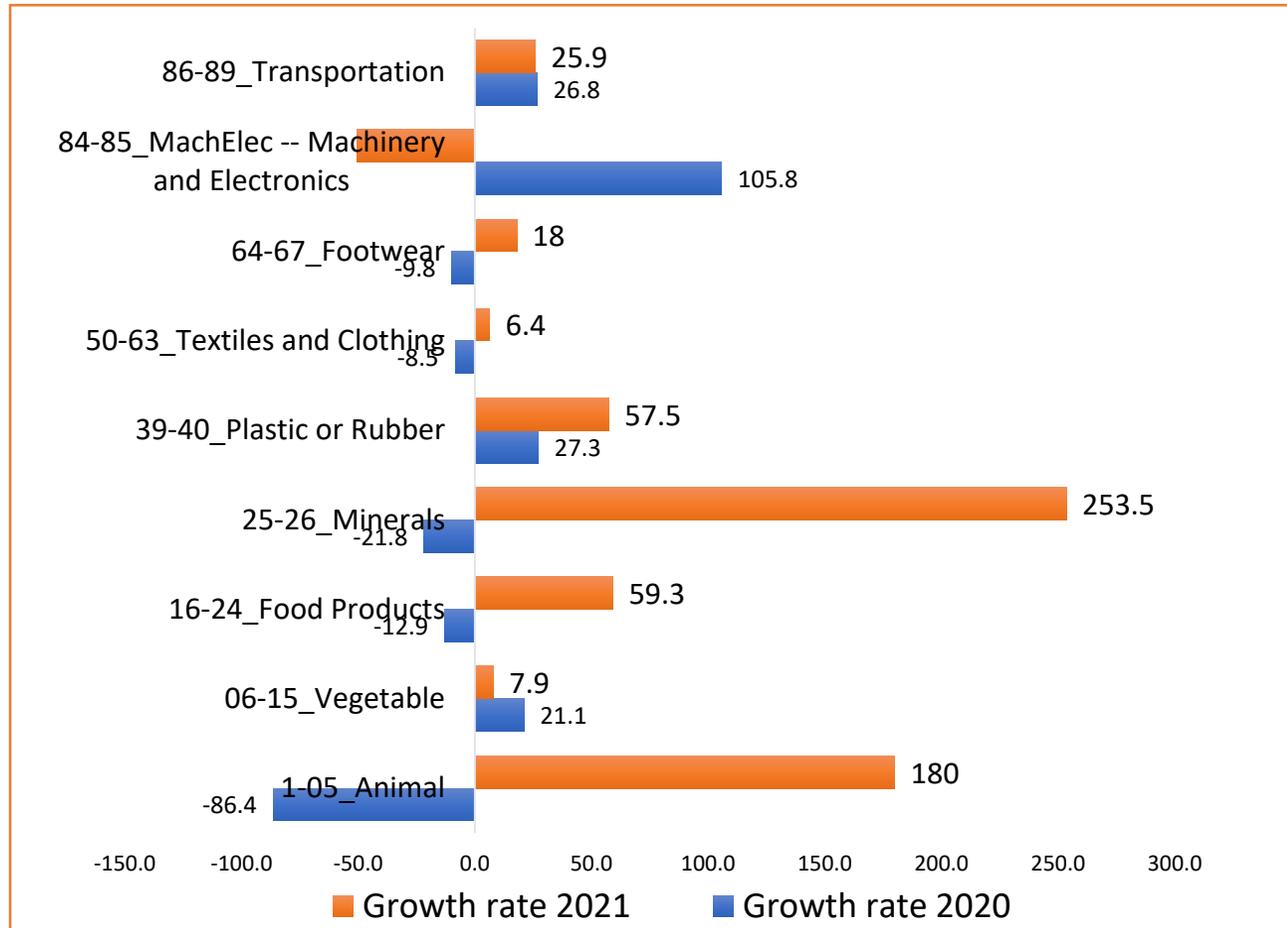


- Total export declined by 6% in 2020 and 7% in 2021
- Goods export is relatively resilient with growth rate contracting by 1% in 2021
- Service export is hard hit by COVID-19, dropping by 68% in 2020 & slow recovery in 2021

Source: Trade Map, accessed at <https://www.trademap.org/> on 14 June 2022

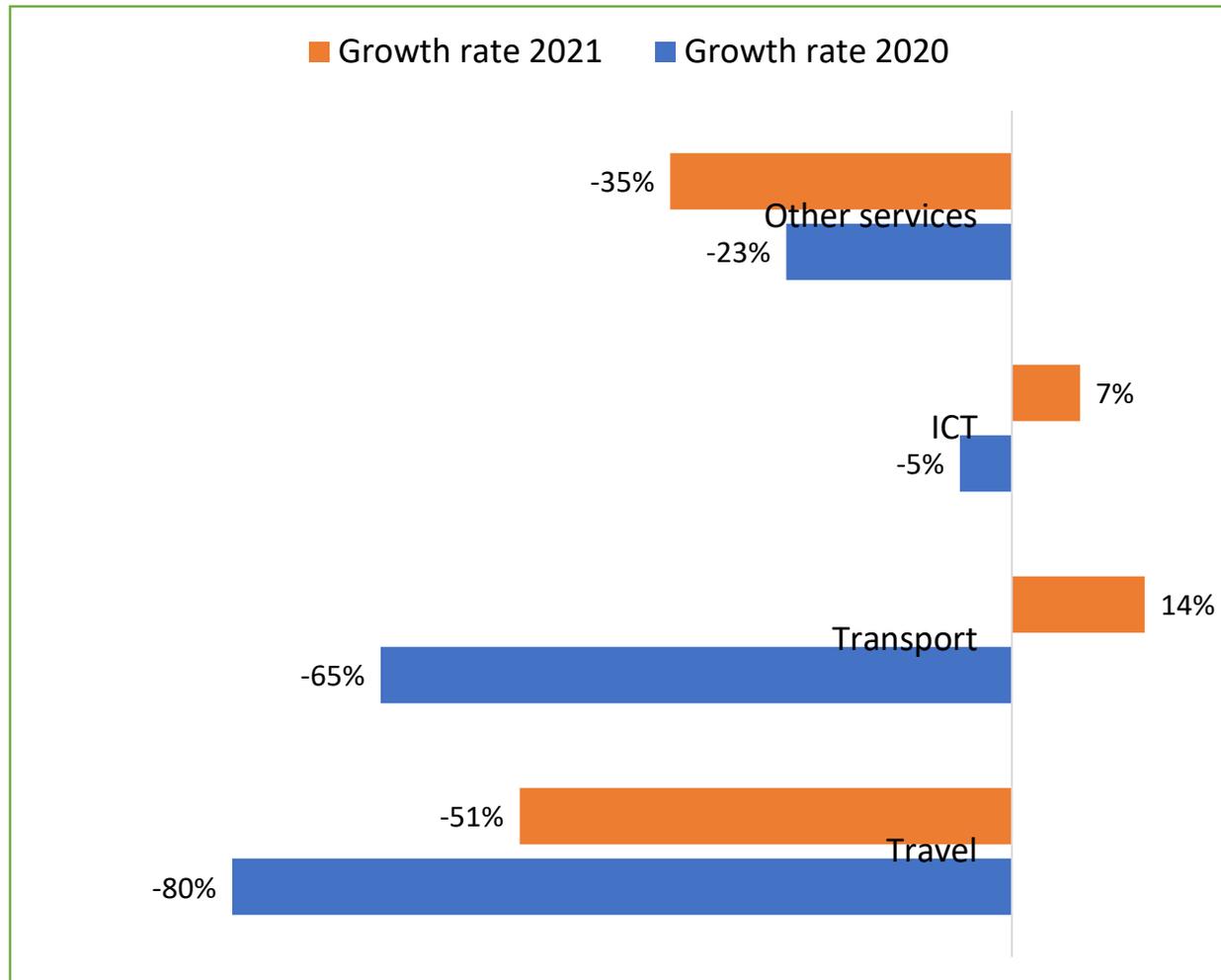
The COVID-19 has differential effects on sectors

Fig 2: Cambodia's annual growth rate of goods export by sectors



Source: Trade Map, accessed at <https://www.trademap.org/> on 14 June 2022

Fig 3: Cambodia's annual growth rate of services export by sectors



Source: Trade Map, accessed at <https://www.trademap.org/> on 14 June 2022

The COVID-19 and supply chain disruption in Cambodia: Evidence from the gravity model

We adopt the Gravity model to assess the impact of the COVID-19 on GVC participation in Cambodia

$$\begin{aligned} Trade_{ijt} &= \text{Exp}(\beta_1 RTA_{ijt} + Z_{it}\beta_2 + Z'_{jt}\beta_3 + Z''_{ij}\beta_4 \\ &+ \beta_5 Covid_{it} + \beta_6 Covid_{jt} + \epsilon_{ijt}) \end{aligned}$$

- $Trade_{ijt}$: export and import of machinery and transport equipments (HS84 – HS92)
- $Covid_{it}$: the number of monthly COVID-19 infection cases in Cambodia
- $Covid_{jt}$: the number of monthly COVID-19 infection cases in partner countries
- **COVID-dummy**: 1 if time t is from January 2020 onward and 0 if it is before January 2020
- We use monthly trade data from January 2019 to December 2020
- Estimate with Pseudo-Poisson Maximum Likelihood (PPML)

Empirical results

- FTAs is likely to accelerate Cambodia participation in GVCs
- The COVID-19 dummy is negative and significant, indicating negative shock to machinery supply chains.
- Different effects of COVID-19 infections in partner countries and in Cambodia.
- COVID-19 infection in partner countries disrupts Cambodia's machinery supply chains.

	Total trade		Export	
	(1)	(2)	(3)	(4)
Distance	-0.854*** (1.02e-09)		-0.612*** (0)	
Sharing border	-1.754*** (2.57e-09)		-3.335*** (0)	
GDP of partner countries	0.666*** (3.17e-09)		0.649*** (0)	
FTA	0.927*** (2.42e-09)	1.346*** (3.34e-10)	0.534*** (0)	1.242*** (1.61e-10)
COVID-19 infected cases in Cambodia	0.185*** (1.23e-09)		0.439*** (0)	
COVID-19 infected cases in partner countries	-0.290*** (8.17e-10)		-0.299*** (0)	
COVID-19 dummy		-5.545*** (1.72e-09)		-2.717*** (2.56e-10)
Observations	1,045	1,045	1,045	1,053
R-squared	0.469	0.469	0.582	0.583
Exporter-time FE	Yes	Yes	Yes	Yes
Importer-time FE	Yes	Yes	Yes	Yes
Country-pair FE	No	Yes	No	Yes

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Leverage trade for economic recovery

- Broaden and deepen regional economic partnership
- Intensify integration into regional electronic and machinery GVC
- Move up garment, textile and footwear GVC
- Promote digital trade
- ***Key success factors:*** strong policy coherence an effective public and private institutions; political and economic stability; conducive business climate; ecosystem conducive to human capital and technological development.