

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*

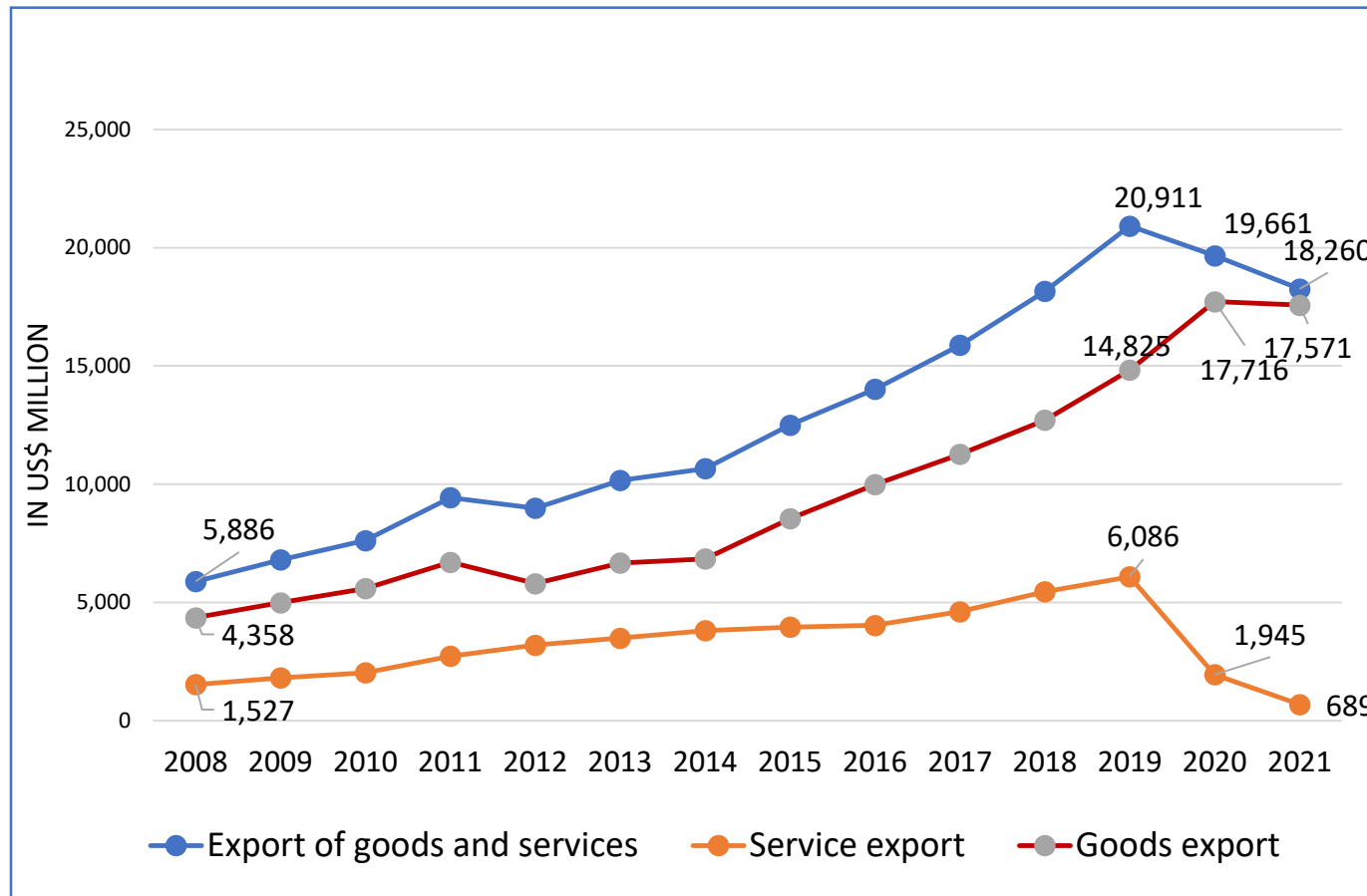
- Restrictions dramatically reduce labour supply and production → causing input shortage and supply chain disruption
- Growing protectionism and rising trade cost worsen the resiliency and efficiency of GVC

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

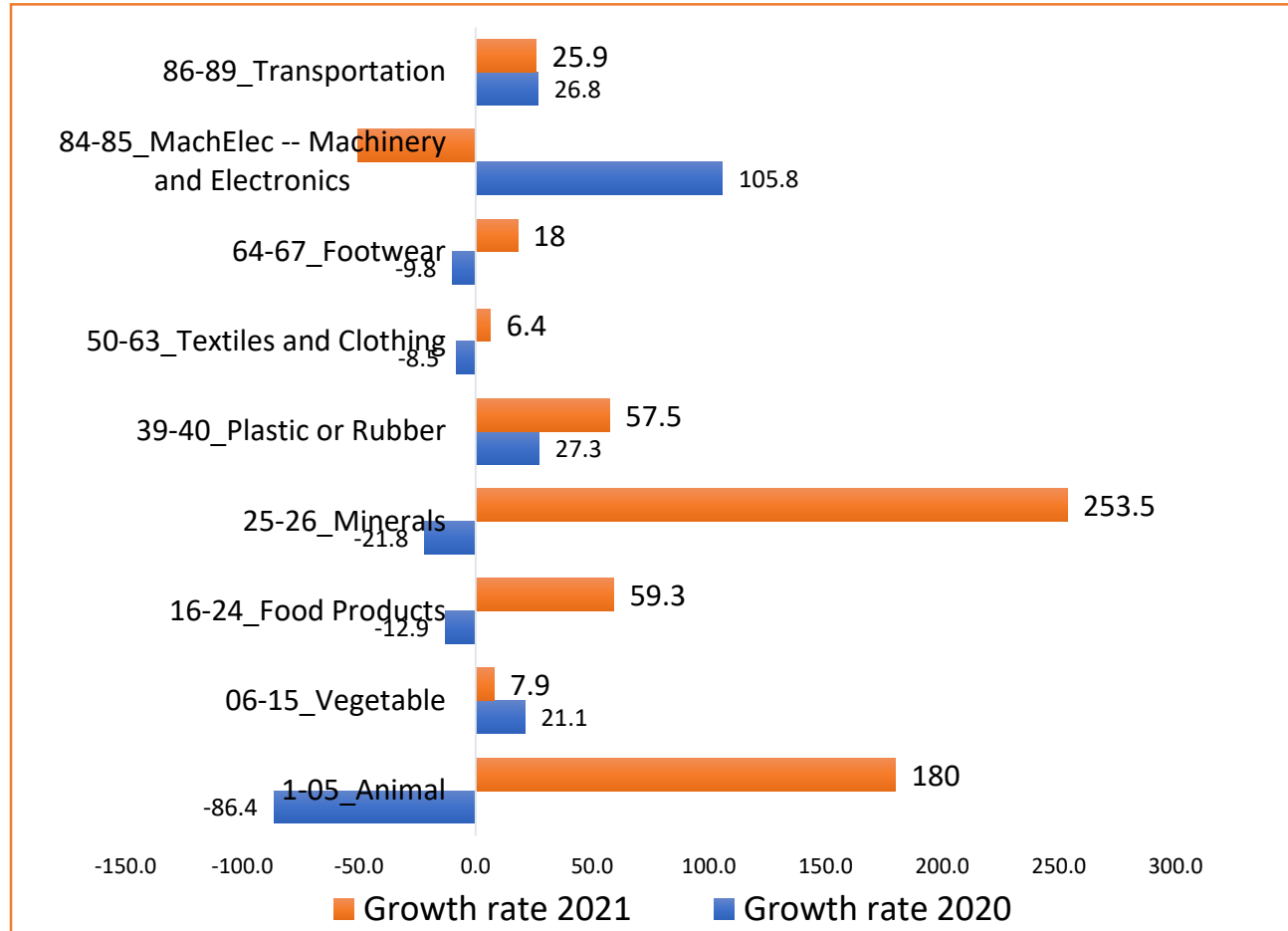


- Total export declined by 6% in 2020 and 7% in 2021
- Goods export is relatively resilient with growth rate contracting by 1% in 2021
- Service export is hard hit by COVID-19, dropping by 68% in 2020 & slow recovery in 2021

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

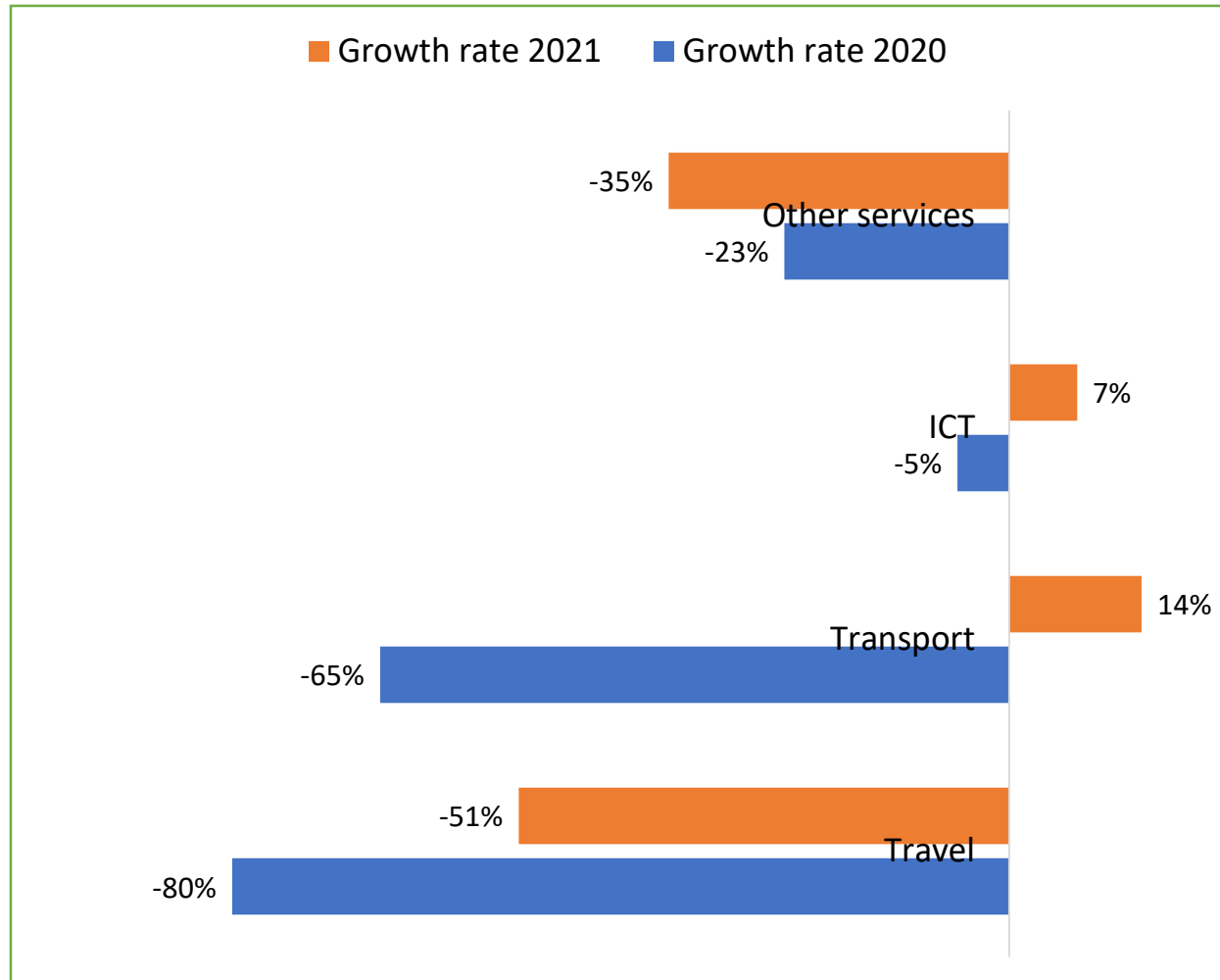
The COVID-19 has differential effects on sectors

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.