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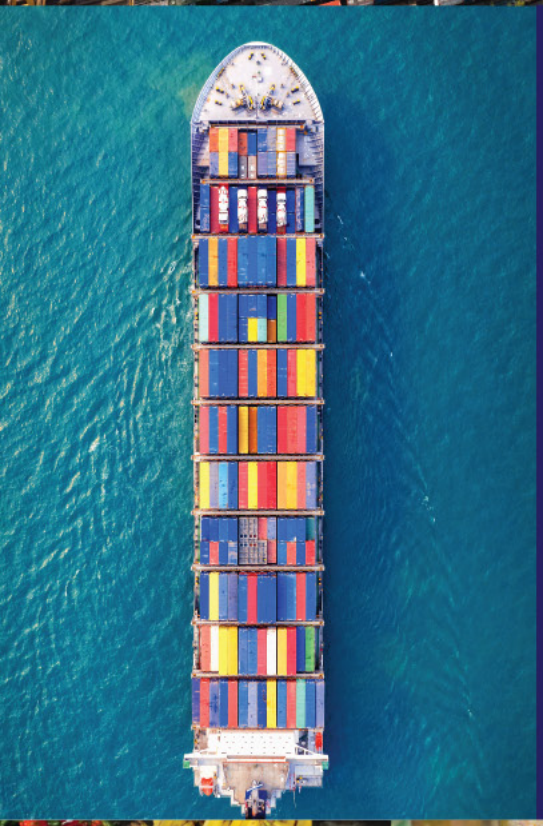

The Effects of COVID-19 on Export Industry & Comparative Advantage of Cambodia

Hing Vutha

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Acronyms and abbreviations

ASEAN	Association of Southeast Asian Nations
CGE	Computable General Equilibrium
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
E-commerce	Electronic Commerce
EU	European Union
FDI	Foreign Direct Investment
TGF	Textile, Garment and Footwear
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GFT	Garment, Footwear and Travel
GSP	Generalised System of Preferences
GTA	Global Trade Alert
GVC	Global Value Chain
HS	Harmonised System
ICT	Information, Communication and Telecommunication
IT	Information and Technology
LDC	Least Developed Countries
PPE	Personal Protective Equipment
PPML	Pseudo- Poisson Maximum Likelihood
RCA	Revealed Comparative Advantage
RCEP	Regional Comprehensive Economic Partnership
ROO	Rule of Origin
SEZ	Special Economic Zone
SME	Small and Medium-Sized Enterprises
STI	Science, Technology and Innovation
UN	United Nations
USA	United States of America
USD	United States Dollar
WHO	World Health Organisation
WTO	World Trade Organisation

Abstract

The repercussions of COVID-19 resulted in global disruptions to supply and demand as well as shocks to the global production networks. This paper employs a trade analysis approach to assess the impacts of coronavirus on Cambodia's export performance. Utilising Revealed Comparative Advantage (RCA) index, changes were analysed using data pre-and post-pandemic to explore the Kingdom's competitiveness and dynamic export position during this time. We found evidence that COVID-19 has caused a 6 percent decline in Cambodia's trade in 2020 and a further 7 percent decline in 2021. However, the effect varies significantly across sectors. The decline was as high as 80 percent for travel services and as low as 65 percent for transport services. Several goods, including animals, food products, textiles and clothing, footwear, and minerals, saw a decline in exports during the early stages of the COVID-19 outbreak, but their exports quickly recovered during the later stages. We also observe that exports of vegetables, transportation equipment, plastics and rubber, and certain machinery products were quite resilient to the pandemic, with export values rising in both 2020 and 2021.

Our RCA analysis indicates that the pandemic has contributed to a decline in the export competitiveness of a dozen of the leading trade products, including a few agricultural products and several textile, garment and footwear products. In addition, there is evidence of a gradual increase in competitiveness, particularly for rubber and plastic products, machinery, and electronic equipment, which not only represents the country's growing participation in regional machinery production networks but also its modest progress in diversifying export commodities.

1. Introduction

Coronavirus (COVID-19), which was first identified in Wuhan, China in December 2019, rapidly spread to other areas of the world, prompting the World Health Organisation (WHO) to declare this outbreak a global pandemic. The disease has caused overwhelming public health concerns and an unprecedented economic recession worldwide. In October 2021, the UN (2021) estimated that the global output fell by 4.3 percent in 2020, the largest global recession since the Great Depression (1929-1939). In 2022, the global economy is projected to decline by nearly half, to 3.4%, and to grow even more slowly in 2023, to 2.8%, before rising slowly and stabilising at 3.0% in five years[1]. The economic shock has been primarily due to simultaneous severe supply and demand disruptions affecting major economic activities including the commodity markets, logistics networks, supply chains, foreign direct investment (FDI), and tourism. Consequently, the economic slowdown caused a significant shock to labour markets and the well-being of workers, especially in terms of job loss and income reductions[2], pulling millions of people into poverty[3].

International trade, investment and global supply chains have been, and continue to be, heavily disrupted. Public health measures introduced to curb the spread of COVID-19 include lockdowns, quarantine, travel restrictions, stricter border control, port closure and export prohibitions which in synergy caused deep disruption to the cross-border movement of goods, services and people. Consequently, global trade has declined drastically. By 2020, international trade in goods and services decreased by 8 percent (WTO 2021). The trade in services was hit harder than that of merchandise, with the volume decreasing by 21 percent. By October 2021, trade in goods had recovered to the pre-pandemic level but trade services remained sluggish, owing to the collapse of the travel industry (IMF 2022). The COVID-19 pandemic exacerbated the fragile global trade order by inducing several countries to implement non-cooperative, nationalist, and protectionism trade practices, which is a departure from the long-standing liberal and rule-based global trade governance. Consequently, trade policy has been highly uncertain, causing an immediate and negative impact on FDI. Global FDI flow in 2020 is projected to decrease by 42 percent in 2020 from the 2019 value of nearly USD 1.5 trillion[4].

As in most countries, Cambodia's economy and its people have suffered from the outbreak and spread of COVID-19. As of August 15, 2022, the country had a total number of 137,000 cases and 3,056 deaths, triggering an unprecedented impact on the country's public health system. Although Cambodia has controlled and managed the outbreak relatively well compared to several countries in the region, the pandemic has had a devastating impact on the economy and people's livelihoods. The country's gross domestic product (GDP) in 2020 declined by 3.1 percent[5] dragging Cambodia into a recession for the first time in the last three decades. Although the economy is showing promising signs of recovery with an economic growth of 3 percent in 2021 and a projection of 5.6 percent growth in 2022, the repercussions of the pandemic are ongoing on business activities, the labour market and livelihood.

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1 IMF (2023). World Economic Outlook: A Rocky Recovery. Washington, DC, International Monetary Fund.

2 ILO (2020) estimates that at the global level the crisis led to the loss of about 420 million full-time-equivalent jobs and the loss of over US$ 3,500 billion of global income.

3 Sumner, A., C. Hoy and E. Ortiz-Juarez (2020). Estimates of the Impact of COVID-19 on Global Poverty, WIDER working paper. show that global poverty could increase by as much as 420-580 million people in 2020 compared to the level in 2018.

4 https://unctad.org/news/global-foreign-direct-investment-fell-42-2020-outlook-remains-weak#:~:text=Global%20foreign%20direct%20investment%20(FDI,Monitor%20published%20on%2024%20January.

5 https://mef.gov.kh

Several studies on the effects of COVID-19 in Cambodia have emerged since the onset of the pandemic. The most common strand of research focused on identifying the impact of the virus on macroeconomic variables such as economic growth, trade, poverty and business performance. The World Bank, for instance, has published a series of Cambodia's Economic Updates with a focus on the impacts that COVID-19 has had on output growth. The reports show that key sectors including tourism, construction and real estate, and merchandise trade slowed down as a direct result of the pandemic (WB 2020). A similar negative effect of COVID-19 has been found in UNDP (2021). Using an integrated Computable General Equilibrium (CGE) modelling approach, it was estimated that COVID-19 caused Cambodia's economy to contract by 3.1% in 2020, before returning to a positive growth between 1.7% and 2.3% in 2021. The slight upward trend in the economy seen in 2021 was dependent on the availability of social protection and other economic stimulus measures.

Other studies have examined the socio-economic impacts of COVID-19. Through its regular surveys of Cambodian households in both urban and rural areas since in Mid-May 2020, the World Bank reported that the economic slowdown due to COVID-19 has resulted in a reduction in employment and income and a rise in poverty (WB 2020). Similarly, UNDP (2021) predicted that about 2.5 million people, equivalent to 14.7 percent of Cambodia's population, are living in poverty. The latest figure released in 2021 by the Royal Government of Cambodia, revealed the poverty rate had increased to 17.7 percent, suggesting an even greater negative effect of COVID-19 on vulnerable communities. Recent research on COVID-19 by CDRI has had diverse themes ranging from the assessment of the pandemic on inclusive development and governance to social protection, and Micro, Small and Medium Enterprises (MSME). These include, for instance, i) "The Study on Tourism MSME and 'New Normal' Economic Revival: The Role of Digital Technologies", ii) "The Impact of COVID-19 on Inclusive Development and Governance: Rapid and Post-Pandemic Assessment in the CLMV countries", and iii) "A Survey on Impacts of COVID-19 Crisis on Cambodian Households".

Despite growing research on the topic, the extent to which COVID-19 affects Cambodia's export industry and comparative advantage has yet to be researched in detail. This study, therefore, aims to fill the knowledge gaps and examines the dynamic of Cambodia's export, and comparative advantage during the pandemic. The findings from this study not only provide insight into the vulnerability of Cambodia's trade and competitiveness but also provide useful insights for policy design for the post-pandemic recovery.

The remainder of this paper proceeds as follows. Section 2 briefly discusses how the COVID-19 pandemic reshapes the global trade landscape. Section 3 examines COVID-19's impact on Cambodia's economy. Section 4 investigates the impact of the pandemic on export performance, with a particular focus on changes in export structure and geographic distribution of export markets. Section 5 evaluates the evolution of Cambodia's export competitiveness by comparing the pre- and post-COVID-19 comparative advantage. Section 6 discusses Cambodia's policy priorities in the rapidly changing global trade landscape. Section 7 concludes the study.

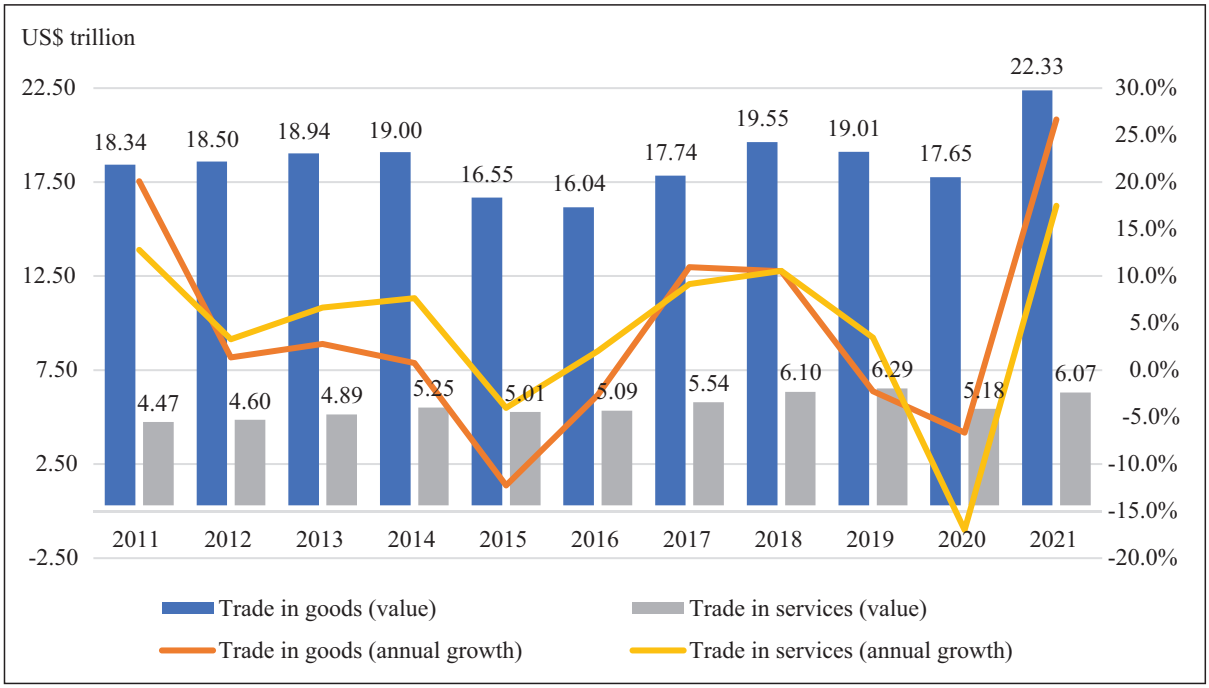
2. The COVID-19 pandemic and the global trade landscape

COVID-19 represents the most serious disruption to international trade order and governance. Indeed, the pandemic caused a dramatic decline in the movement of goods, services and people, a significant disruption in transport and logistics, triggered more protectionism and non-cooperative trade practises, and also resulted in the long-term departure from the liberal trade paradigm. Although the merchandise trade shows promising signs of recovery, world trade remains significantly hindered by rising costs and protective policy interventions. The following is a list of ways in which the pandemic has had an impact on international trade.

COVID-19 has caused a significant decline in trade volume

Global trade volume experienced a significant decline as a result of the COVID-19 outbreak. Prior to the pandemic, global trade had been steadily expanding, with an average annual growth rate of approximately 4 percent between 2011 and 2019. Global trade in goods and services amounted to approximately $25.3 trillion in 2019. However, global trade drastically reduced in 2020. As shown in Figure 1, the volume of global trade in goods and services fell by 12.4 percent to USD 22.83 trillion in 2020, representing the largest decline in trade since World War II (1939-1945). The service sector experienced a more severe decline, with a negative annual growth rate of 18 percent compared to the merchandise trade's negative annual growth rate of 7 percent. Among the different regions, Africa experienced the greatest decline in trade, with a negative growth rate of 21 percent. The trade slowdown in the Americas was also significant, as evidenced by a 15 percent decline, whereas the declines in Asia (8 percent) and Europe (9 percent) were more modest[6].

Figure 1: World trade in goods and services, 2011-2021



Source: UNCTADSTAT, accessed on 1 March 2023 at https://unctadstat.unctad.org

The decline in world trade was particularly steep in the first half of 2020 when many countries implemented strict lockdowns and travel restrictions in response to the pandemic. In the second

6 UNCTADSTAT, accessed on 1 March 2023 at https://unctadstat.unctad.org

half of 2020, trade recovery gained momentum as many countries began to ease restrictions and reopen their economies. The recovery accelerated in 2021, with a total value surpassing pre-pandemic levels. In 2021, world trade was valued at USD 28.5 trillion, up 24 percent from the previous year and 12 percent from the pre-covid period. The trade in goods has recovered more quickly than the trade in services due to robust consumer demand for products, strengthened global supply chains, and government stimulus programmes. The annual increase in goods in 2021 was 26.5 percent.

COVID-19 has caused unprecedented disruption to GVC worldwide

GVCs are the dominant production configurations in the global economy and refer to the intricate network of businesses, suppliers, and other actors involved in the production and distribution of goods and services across international borders. Participating in GVCs offers a wide range of economic benefits including specialisation, innovation and technology flows, more advanced organisational modes, and stimulation of international trade and investment, thereby fostering greater competitiveness and growth (Cattaneo, Gereffi et al. 2013, De Backer, De Lombaerde et al. 2018). GVCs can also contribute to an increase in industrial productivity, leading to an improvement in the performance of the private sector, including SMEs. However, the pandemic has undermined the efficiency of GVCs. The wide range of government measures introduced to control the spread of infections, including lockdowns, business closures, social distancing and other forms of restrictions, dramatically reduced the labour supply and production, causing input shortages and supply chain disruptions. Moreover, the trade landscape during the pandemic has been significantly marred by growing non-cooperation, protectionism and rising transportation costs, which worsen the efficiency and resiliency of supply chains. UNCTAD (2020a) provided anecdotal evidence of supply chain disruptions due to rising logistics and transportation costs, which prompted some firms to reconfigure their supply chains, potentially reshaping the global and regional structure and governance of GVCs. As a result of the current global scenario, supply chain structure is changing. Depending on the industries, the reconfiguration of international production could evolve around four distinct configurations: regionalisation, reshoring, diversification, or replication (UNCTAD 2020a, Zhan 2021). The strong tendency toward the regional configuration of value chains and production networks is driven by the need to reduce the risk (physical length) of supply chains and to strengthen economic integration at the regional level, e.g. EU, ASEAN, etc (Rugman and Verbeke 2005, Iammarino and McCann 2013). There is growing evidence that the pandemic will lead to a regionalisation of the global production (Enderwick and Buckley 2020, Gereffi 2020, UNCTAD 2020a, Zhan 2021).

Reshoring refers to the investment decision to recall some manufacturing activities back to the home country, where it was previously outsourced. It is primarily happening in higher technology and knowledge-intensive industries such as chip manufacturing with the aim of enhancing efficiency through shorter value chains and reducing exposure to risk. There is anecdotal evidence suggesting that European companies in some industries have decided to move production back to Europe (Pla-Barber, Villar et al. 2021). Findings from an executive survey show that 48 percent of respondents chose sourcing diversification as their primary reconfiguration strategy, whereas only 5 percent of respondents were re-shoring (The Economist Group 2022).

A third possible trajectory is that companies may seek to diversify their supply chains and source inputs and components from a wider range of suppliers in different locations. This would act as a means to reduce the risk of disruption from any one country or supplier, allowing the system to be better prepared to manage vulnerabilities. A fourth possible trajectory to

improve resilience is that lead firms create similar production processes in different locations, to consciously prepare for disruptions in the logistics distribution. For example, if one country experiences a disruption to its capacity as a result of the marketplace, inter-organisational constructions, or originating from an external source, replication can ensure that production can continue in another location. By having replicated mechanisms in place in a multitude of sites, companies can reduce negative attributes of systems including irregularity and unreliability, and take advantage of local expertise, resources, and capabilities to improve the efficiency of production and reduce costs. It is crucial to note that these trajectories are not mutually exclusive, and it is likely that different firms will pursue different strategies based on their particular circumstances and priorities. Change is a natural part of business and preparedness strategies to (WTO 2020a)ensure reactivity; however, in pursuit of improved resiliency, supply chains are proactively restructuring according to modern concepts to become further specialised and most importantly, dependable (Asbjørnslett 2009). Nonetheless, the pandemic has highlighted the need for greater resiliency and flexibility in GVC, which may influence the course of future developments.

COVID-19 has facilitated protectionism and non-collaborative trade policies

Prior to the COVID-19 pandemic, global trade policies were already under intense pressure as a result of US-China tensions and the broader competition between the two economic superpowers. In 2018, the United States accused China of "unfair" trade practices and subsequently imposed tariffs[7] on more than USD 250 billion worth of Chinese imports (Bown 2022). China retaliated and imposed tariffs on US imports, escalating trade tensions on a global scale. The increase in tariffs not only collapsed the long-established and rule-based multilateral trading system (that was already facing enormous challenges in effectively managing global trade), but also caused significant global uncertainty that disrupted trade flow, investment, and GVCs in Asia and beyond (Elms 2021). The WEF (2021) asserts that trade tension and policy uncertainty are resulting in the localisation of supply chains.

The COVID-19 pandemic exacerbated the complex and fragile global commercial landscape by causing several nations to adopt non-cooperative, nationalist, and protectionist trade policies with a focus on protecting domestic industries and jobs (WTO 2020a). In an effort to prevent the spread of COVID-19, governments implemented a variety of temporary measures, including lockdowns, entry bans, travel restrictions, border closures, port closures, and modifications to port protocol. This led to an increase in protectionist measures, which can limit the flow of goods and services across borders. More specifically, travel restrictions have had a heavy impact on a wide range of sectors including tourism, education and business services. Some countries have taken unilateral measures to protect their domestic industries and jobs, such as imposing tariffs and trade barriers without consulting other nations or collaborating to find solutions to shared problems. By 22 April 2020, eighty countries had imposed export bans on medical supplies, pharmaceuticals, medical equipment and personal protective equipment (PPE) needed to fight the spread of COVID-19 (WTO 2020a).

Moreover, the pandemic has altered the state's role in the economy through interventions ranging from non-cooperation to partial or total nationalisations (Jean 2020). The most recent information from the Global Trade Alert[8] indicated a rise in harmful policy interventions at

7 According to Bown (2022), in July 2018 the USA imposed 25 % of tariff on 818 products imported from China with value of roughly US$ 34 billion. A month later, the USA applied 25 % of tariff additional 279 products with estimated import value of US$ 16 billion. The last stage of measure took place in September 2018 during which the USA imposed 10 % tariff on additional US$ 200 billions in 5733 tariff lines.

8 https://www.globaltradealert.org

the global scale, highlighting the prevalence of destructive behind-the-border measures within the international trade system. Such practices of protectionism and nationalism have put the multilateral trading system in jeopardy and could even impede global trade recovery. Even though many of the measures are temporary and justified under the World Trade Organisation (WTO) rules, such a complex trade environment poses a challenge to the global trade governance's ability to govern the system effectively within the context of transparent, predictable, and open norms. It is important to note that a more liberal and rule-based international trading order, which creates an essential condition for the effective and efficient functioning of production networks, has been a major factor in the growth of global production networks, particularly in East Asia, over the past few decades (Kimura 2021).

COVID-19 has increased trade cost

The COVID-19 pandemic has also led to an increase in trade costs. The majority of countries worldwide implemented several necessary public health measures, such as border closures or stricter sanitary procedures and these led to significant delays in international cargo transport, impeding the movement of goods across and between nations (WTO 2020b). The pandemic has led to new health and safety regulations and guidelines, as well as new protocols for social distancing and PPE enforcement, which has increased the cost of compliance for businesses. Moreover, port closures, a change in docking protocol, and a decrease in the number of sailings have had an impact on maritime transport. Travel restrictions also had a significant impact on air transport, resulting in a 24.6 percent annual decline in global air cargo capacity by March 2020 (WTO 2020b). These disruptions in the transport sector have led to a substantial increase in trade costs, significantly affecting trade flow and GVC activities (Evenett 2020). According to the OECD (2022), both the bulk freight rate and the container freight rate have reached the highest level since the global financial crisis. The cost and the state of global trade logistics have further deteriorated as a result of the Russia-Ukraine war causing a sharp increase in fuel and energy prices.

COVID-19 has accelerated digital transformation and digital trade

COVID-19 has accelerated digital transformation as industries and consumers have increasingly turned to digital tools and technologies to adapt to the pandemic's challenges. Businesses and governments continue to recognise the benefits of digital technologies for increasing operational resilience and efficacy (UNCTAD 2020b). COVID-19 has also accelerated the digitalisation of supply chains as businesses increasingly adopt digital tools such as blockchain, artificial intelligence, and the internet to enhance the visibility and transparency of their supply chains. During the pandemic, there has been an increase in the use of telemedicine, in which patients receive medical care remotely via digital platforms. This has expedited the adoption of digital healthcare technologies and the growth of the digital health infrastructure (UNCTAD 2022b). In Cambodia, we saw a sharp surge in e-commerce activity during the pandemic, along with more people using smartphones, social media, and other digital platforms. According to a study of e-commerce in LDCs, following the COVID-19 epidemic, online grocery sales have increased by more than 150 percent for some online start-ups (UNCTAD 2020b). There is anecdotal evidence that businesses with a higher level of digitalisation are more likely to adopt successful public crisis management strategies and outperformed their competitors during the COVID-19 outbreak. For instance, in Europe, about 30 percent of SMEs have begun developing new products and services with embedded digital technology (RMIT University 2021). Around 69 percent of SMEs have already deployed the technologies required to facilitate remote working. Such widespread digital usage aids SMEs in improving their adaptability and crisis

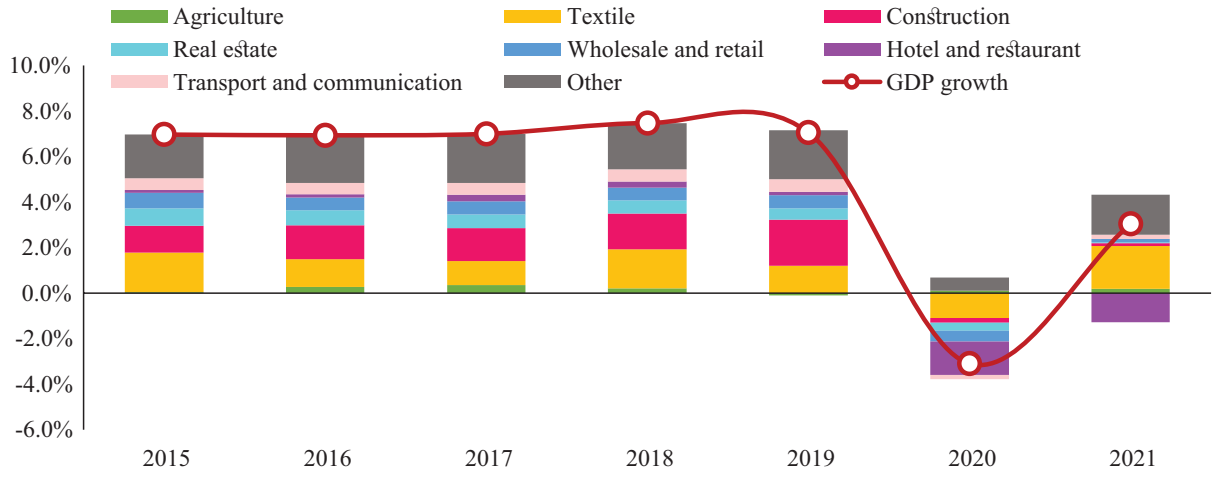
management. Digitalisation is positively correlated with SMEs' public crisis response tactics and performance, according to a research of 518 Chinese SMEs (Guo et al. 2020).

3. The COVID-19 pandemic and Cambodia's economy

The COVID-19 pandemic has had significant negative effects on Cambodia's economy. As shown in Figure 2, the country's economic growth in 2020 plummeted to a negative 3.1 percent, dragging Cambodia into a recession for the first time in the last three decades. Construction, tourism, and merchandise exports, which together account for more than 70 percent of growth and 39 percent of paid employment in 2020, have all been affected by COVID-19's unprecedented shock to the external environment (WB 2020). Impacts to these industries were severe and not limited to declining global demand, significant disruptions in global production and trade, restrictions on the movement of people, and a decline in investment. However, Cambodia's economic shock has been less severe than that of several other Southeast Asian countries. According to ADB (2021), COVID-19 caused the Philippines' economy to decline by 9.6 percent in 2020, while Thailand, Malaysia, and Singapore's economies fell by 6.1 percent, 5.6 percent, and 5.4 percent, respectively.

In 2021, Cambodia's economy rebounded with a positive growth rate of 3 percent. The economic recovery was driven by a combination of government stimulus, strong export growth and a recovery of foreign direct investment (FDI) inflow (WB 2022). Despite a relatively favourable external environment, a protracted pandemic caused by a national outbreak (20th February Incident) and the emergence of new strains, Delta and Omicron, continued to disrupt domestic economic activities, particularly in the tourism and hospitality sectors, thereby exerting downward pressure on growth.

Figure 2: Cambodia's real GDP growth, 2015-2021



Source: National Institute of Statistics (NIS)

Cambodia's economic recovery continues to accelerate, with projected GDP growth of 5.2 percent in 2022 and 5.6 percent in 2023[9]. The increase in manufacturing exports, particularly apparel, footwear, travel goods, and bicycles, the revival of the travel and tourism industry, and the return of FDI inflows have all contributed to the continuation of Cambodia's economic recovery (WB 2022). In addition, the outlook will be bolstered by growth in agricultural production and agro-processing industries. Such commerce will be supported by regional and

9 https://mef.gov.kh

bilateral free trade agreements, as well as by robust investment in several key infrastructure projects, such as the Phnom Penh-Sihanoukville expressway and the new logistics complex and multimodal port development project in Kampot (WB 2022).

Overall, it is reasonable to assert that Cambodia's economy is relatively resilient to the external shock caused by the COVID-19 pandemic, as evidenced by its swift economic recovery and improved growth outlook for the near future. However, there are a number of external risks that could affect Cambodia's short-to-medium term growth trajectory, including a slow recovery of global trade, a slowdown in China's economy, high inflation, global financial tightening, and a rise in geopolitical tensions between the United States and China.

4. Cambodia's export performance before and during COVID-19

4.1. Export performance before COVID-19

Exports have been a primary driver of Cambodia's sustained economic growth over the past decades. As shown in Table 1, prior to the COVID-19 pandemic, exports of goods and services increased by 12 percent annually during the period of 2008-2019 from a total of USD 5,886 million in 2008 to USD 20,911 million in 2019. Approximately 77 percent of the country's GDP is comprised of exports of goods and services, demonstrating high dependence on the global market. Using the Harmonised System (HS) code[10] to disaggregate exports by industry, textiles and garments (HS50-63) was Cambodia's largest export sector with a value of USD 8,489 million or roughly 60 percent of total merchandise exports. The second-largest export sector was machinery and electronic appliances (HS84-85), which accounted for USD 2,600 million or 18.5 percent of total exports. It is important to note that exports of machinery and electronic appliances increased by an average of 103 percent per year between 2010 and 2019. This is reflective not only of the country's efforts to diversify away from textiles and apparel but also its capacity to participate in the dynamic regional supply chains of machinery and electronic appliances. Other export sectors include footwear and headwear (9.5 percent of total exports), vegetables (4 percent), plastics and rubber (3.3 percent), and transportation (3.0 percent). Before COVID-19, the majority of Cambodia's merchandise was exported to the European Union (41.6 percent), the United States (34.2 percent), Japan (8.8 percent), China (7.8 percent) and the United Kingdom (9 percent). All of which countries provided preferential market access to Cambodia's exports through their respective Generalised System of Preferences (GSP) programmes which assist and in turn promote productive capacity development to increased trade in the nation.

In the decade prior to COVID-19, Cambodia's trade in services had also increased significantly. From 2008 to 2019, the country's service exports increased dramatically from USD 1,527.4 million to USD 6,086.3 million; equivalent to an annual increase of 12 percent. The majority of Cambodia's service exports are from the travel industry, demonstrating the country's reliance on tourism to generate foreign currency. The high export concentration in the service sector would make the economy more susceptible to external shocks such as the COVID-19 pandemic. The section that follows will examine the extent to which COVID-19 has varying effects on Cambodia's exports of goods and services.

10 The HS code is a standardized system of names and numbers used to classify and categorize goods traded internationally. It was developed by the World Customs Organization (WCO) and is used by customs authorities, traders, and statisticians worldwide.

Table 1: Cambodia's export structure before COVID-19

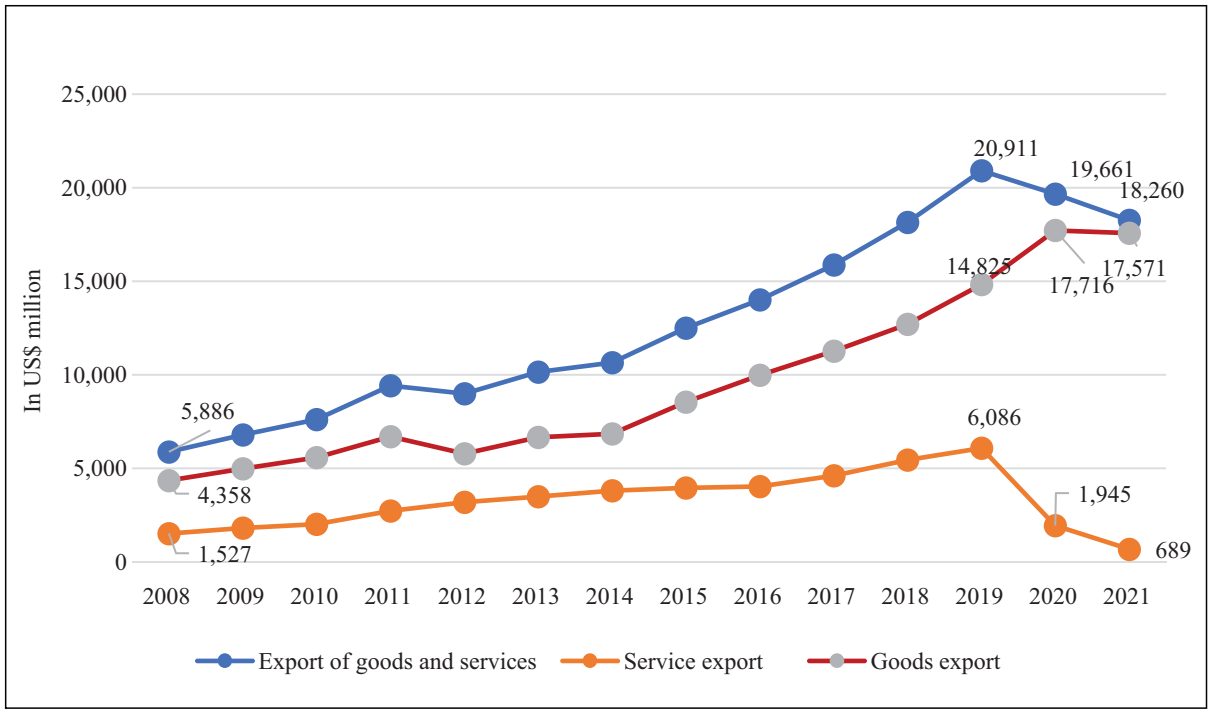
	2019 (USD million)	Share to total (%)
Total export in goods	**8,489.6**	
Goods export by sector		
- 50-63_Textiles and garments	8,489.6	60.3
- 84-85_Machinery and Electronics	2,600.2	18.5
- 64-67_Footwear	1,332.2	9.5
- 06-15_Vegetable	557.5	3.9
- 39-40_Plastic or Rubber	464.1	3.3
Cambodia's top 5 goods export markets		
- EU	5,378.4	41.6
- USA	4,414.3	34.2
- Japan	1,140.0	8.8
- China	1,012.1	7.8
- UK	979.9	7.6
Total service exports	**6,086.0**	
Service export by sector		
- Travel services	4,773.0	78.4
- ICT services	87.0	1.4
- Financial services	25.0	0.4

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

4.2. Export performance during COVID-19

The COVID-19 pandemic has had a significant impact on Cambodia's export performance. According to Figure 3, Cambodia's total export value in 2020 was USD19.66 billion, a decrease of 6 percent compared to the previous year. The decline in export was relatively moderate compared to that of the average ASEAN and other Least Developed Countries (LDCs), whose exports fell by 9 percent and 10.5 percent, respectively. In Cambodia, the service sector experienced the largest decline, falling by 68 percent as a result of the severe disruption in transportation and logistics services brought on by lockdowns, the closing of borders, and the imposition of quarantine measures. The decline continued in 2021, with exports falling to USD 689 million. Although Cambodia has begun to reopen its borders and lift restrictions on international travel, the recovery of the service exports in 2021 had been slow primarily due to ongoing concerns about the pandemic and existing travel restrictions and border closures imposed by many countries. In contrast, the export of goods is relatively less affected by COVID-19, with export values increasing by 20 percent in 2020 and contracting by only 1 percent in 2021.

Figure 3: Cambodia's export trend 2010-2021



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

COVID-19 had a differential effect on exports across sectors

The impact of the pandemic on exports varies widely across industries. As shown in Table 2, exports of some agricultural sub-sectors were severely impacted in the early stages of the COVID-19 outbreak but recovered rapidly in the later stages. Precisely, exports of animals and animal products (HS01-HS05) decreased by 86.4 percent in 2020 but quickly recovered the following year, growing by 180 percent in 2021. Similarly, exports of food products (HS16-HS24) decreased by 12.9 percent in 2020 before increasing by 59 percent in 2021. Similar trends were observed in textile and clothing (HS50-HS63) and footwear (HS64-HS67) exports, with a decrease of 8.5 percent for the former and 9.8 percent for the latter in 2020, followed by increases of 6.4 percent and 18 percent, respectively, in 2021. This export pattern indicates a clear disruption in the supply chains of the textile, clothing, and footwear production exports, which recovered rapidly once several public health measures and restrictions relaxed. The export volume of machinery and electronics (HS84-HS85) had increased sharply in 2020 before plummeting in 2021. Several sub-sectors, such as vegetable (HS6-HS15), plastic and rubber (HS39-HS40), and transportation (HS86-HS89), registered positive export growth throughout the pandemic, demonstrating the resilience of their production and supply chains.

In comparison to the pre-covid era, the proportion of textiles and apparel exports to total exports has decreased by approximately 7 percent while the proportion of machinery and electronics exports has increased by 2.5 percent from 18 percent in 2019 to 20.6 percent in 2021. Similarly, the percentage of exports for plastic and rubber, transportation equipment, and vegetables has increased, albeit to a lesser degree of 2 percent, 1.3 percent, and 0.8 percent, respectively. A less concentrated export structure is confirmed by a reduction in Herfindahl-Hirschman Product Concentration Index[11] from 0.41 in 2019 to 0.34 in 2021, which essentially indicates that export diversification is occurring.

11 This indicator is a measure of the dispersion of trade value across an exporter's products/sector. A county with a preponderance of trade value concentrated in very few sectors will have an index value close to 1.

Table 2: Cambodia's annual growth rate of merchandise export by sector

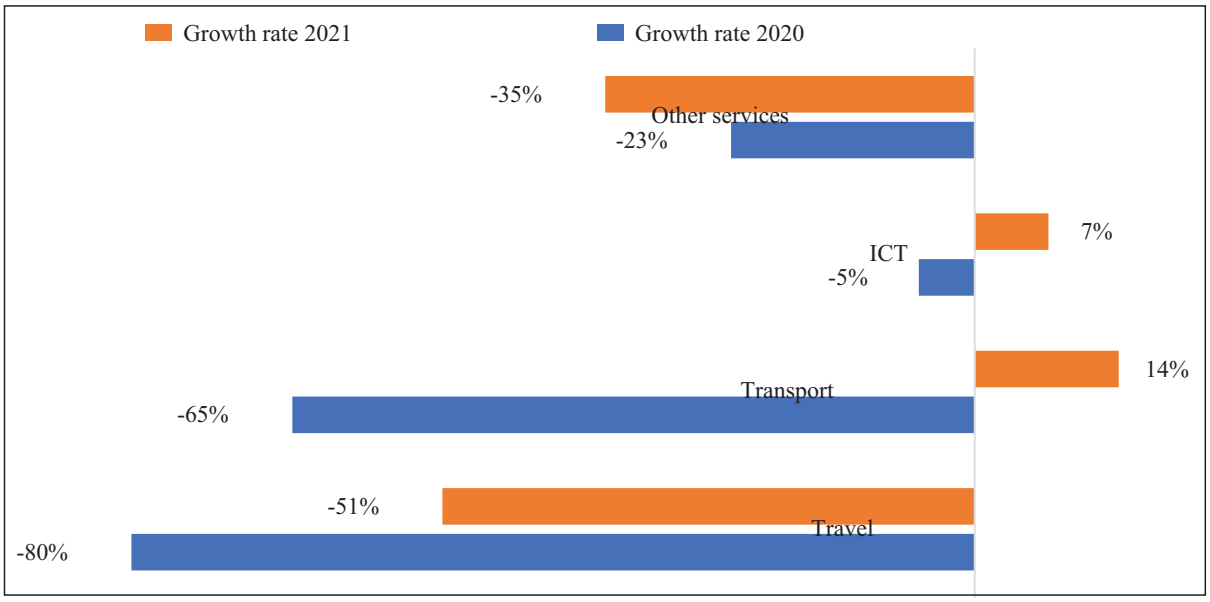
Sector	Growth during 2019-2020 (%)	Growth during 2020-2021 (%)	Share to total export in 2021 (%)
1-05_Animal	-86.4	180	0.1
06-15_Vegetable	21.1	7.9	1.1
16-24_Food Products	-12.9	59.3	4.8
25-26_Minerals	-21.8	253.5	0.1
39-40_Plastic or Rubber	27.3	57.5	5.3
50-63_Textiles and Clothing	-8.5	6.4	53.5
64-67_Footwear	-9.8	18	9.5
84-85_Machinery and Electronics	105.8	-50.5	20.6
86-89_Transportation	26.8	25.9	4.5

Source: Author's calculation based on trade data from Trade Map, accessed at https://www.trademap.org/ on 14 June 2022

Most service exports were hard hit by COVID-19

Almost all service industries (e.g., hospitality, retail, entertainment) were hit the hardest by the virus outbreak. The most severely affected was, and continues to be, the travel industry, with export drastically declining by 80 percent in 2020. The decline in the travel sector exports continued to be significant in 2021, largely due to travel restrictions, temporary closure or suspension of several air transport operators, fear of travel and health concerns, which directly and indirectly affected the movement of people and provision of travel-related services. Prior to COVID-19, Cambodia received 6.61 million tourists and generated revenues from tourism of USD 5.31 billion or equivalent to 19.61 percent of GDP[12]. The COVID-19 pandemic, however, resulted in tourist arrivals in 2020 falling to 1.31 million people, an 80 percent reduction from 2019, and revenues dropped to USD 1.12 billion or 4.3 percent of GDP. Transport services were the second most affected sector, with exports decreasing by 65 percent in 2020. But unlike the tourism sector, this service sector recovered at a faster pace in 2021, with export registering a growth rate of 14 percent in 2021. Similar trends are recorded by exports of Information, Communication and Telecommunication (ICT) services, which were down by 5 percent in 2020 but up by 7 percent in 2021.

Figure 4: Cambodia's annual growth rate of service exports by sector



Source: Author's calculation based on trade data from Trade Map, accessed at https://www.trademap.org/ on 14 June 2022

12 https://www.worlddata.info/asia/cambodia/tourism.php

COVID-19 has had differential effect on Cambodia's trade partners

The pandemic seems to have had a varied impact on Cambodia's geographical distribution of exports. Prior to COVID-19, the United States (US) was Cambodia's largest export market, with a value of $4.41 billion, or 30 percent of total exports. During the pandemic, the US remained the leading export market, with its share in 2020 remaining comparable to the pre-covid period. In 2021, however, the US' share of total exports increased significantly to 42.6 percent. Textiles and clothing accounted for 70 percent of Cambodia's exports to the US (USD 3.11 billion), followed by travel goods and handbags (USD 1.26 billion or 17 percent), furniture, bedding, and mattresses (USD 833 million), machinery and electronic appliances (USD 569 million), and footwear (USD 569 million) (USD 549 million).

We observe that Cambodia has lost a significant portion of its exports to the European Union (EU), as the EU's share of total exports fell from 26.3 percent in 2019 to 18.2 percent in 2020. Although the decline occurred during the pandemic, we lack sufficient evidence to attribute it exclusively to COVID-19. Coincidentally, the decline in exports to the EU followed a substantial shift in EU trade policy regarding the GSP programme granted to Cambodia. In particularly, the EU made the decision to withdraw preferential market access for a handful of garments and footwear products, travel goods and sugar sectors from Cambodia on the grounds of human rights violations[13]. The decision went into effect on August 12, 2020, which meant that as of this date, exports of the aforementioned products no longer had duty-free access to the EU market and were instead subject to tariffs applicable to any other WTO member. We suspect that the partial withdrawal of preferential market access has diminished the competitive edge of Cambodia's exports to the EU, and that the decline in exports may be a result of this. In 2019, Cambodia exported USD 3,535 million worth of textiles and clothing and USD 600 million of footwear to the EU. A year later, the value of exports decreased by 19 percent (USD 2,873 million) for textiles and clothing, and by 22 percent (USD 468 million) for footwear. Also suffering similar downfalls are the exports of travel goods and sugars, with values down from USD 138 million and USD 6.46 million, respectively in 2019, to USD 98 million and USD 0.18 million in 2020.

China is Cambodia's third-largest market with export values rising by 18 percent during the period of 2017-2021, from USD 750.43 million in 2017 to USD 1,510.25 million in 2021. COVID-19 disrupted Cambodia's trade to China, as evidenced by a slight decline in the export share from 6.8 percent in the pre-covid period to 6.1% in 2020. However, the proportion of exports increased modestly to 8.6% in 2021, demonstrating a rapid recovery from the COVID-19 disruption. It is important to note that Cambodia's export performance in the Chinese market is largely driven by the strong growth and resilience of the leading export products[14]. Except for articles of clothing and clothing accessories (HS 63), which saw a decline of 12 percent from 2017 to 2021, the other top 10 export products have shown robust growth. For instance, the export value of copper and articles (HS 74) increased by 918 percent between 2017 and 2021, resulting in a significant increase in export share from 3 percent in 2019 to 5 percent in 2021. Similarly, the export value of edible fruits and nuts (HS 08) increased by 315 percent

13 https://www.worlddata.info/asia/cambodia/tourism.php

14 Cambodia's top ten products to China in 2021 are: furskins and artificial fur (HS 43--US$ 404.8 million); cereals (HS 10—US$ 182.3 million); edible fruit and nuts (HS 08--US$ 404.8 million); articles of apparel and clothing accessories, knitted (HS 61--US$ 119.5 million); copper and articles (HS 74--US$ 92.1 million); articles of apparel and clothing accessories, not knitted (HS 62--US$ 74.8 million); electrical machinery and equipment (HS 85--US$ 72.4 million); footwear, gaiters and the like (HS 64--US$ 63.4 million); machinery, mechanical appliances (HS 84--US$ 60.9 million); and articles of leather; saddlery and harness for any animal; travel goods, handbags(HS 42--US$ 41.4 million).

contributing to a sharp increase in export share from 1 percent in 2019 to 13 percent in 2021. Less rapidly increasing are exports of machinery and mechanical appliances—HS84 (121 percent), articles of leather—HS 42 (71 percent), articles of apparel and clothing accessories, not knitted—HS 62 (66 percent), footwear—HS 64 (16 percent), cereals—HS 10 (14 percent), furskins and artificial fur—HS 43 (9 percent), and electrical machinery and equipment—HS 85 (8 percent). Several studies, including Thangavelu, Hing et al. (2022), predicted that the implementation of the Regional Comprehensive Economic Partnership (RCEP) and the bilateral trade agreement between Cambodia and China will strengthen trade ties between the two nations.

Table 3: Cambodia's share of merchandise exports by destination countries

Year	2012	2015	2019	2020	2021
Export to world (USD billion)	**5.796**	**8.542**	**14.825**	**17.716**	**17.572**
Share to total exports (%)					
United States of America	32.7	25.0	29.8	30.1	42.6
European Union	21.6	28.3	26.4	18.2	18.4
China	3.1	4.7	6.8	6.1	8.6
Japan	3.2	6.7	7.7	6.0	6.2
Canada	6.8	6.5	5.7	4.2	5.4
United Kingdom	8.3	10.2	6.6	4.7	4.2
Vietnam	1.9	2.2	2.4	2.2	2.9
Thailand	1.7	4.1	3.4	3.7	2.1
Hong Kong, China	8.6	2.1	1.6	3.8	1.3
Australia	0.6	1.0	0.9	0.8	1.2
Korea, Republic of	1.2	1.6	1.4	1.0	1.1
Singapore	3.6	0.7	1.8	14.8	0.7

Source: Author's calculation based on trade data from Trade Map, accessed at https://www.trademap.org/ on 14 June 2022

Singapore imported substantially more from Cambodia during the pandemic than before, making it the third-largest market for Cambodia's export. In 2020, exports to Singapore accounted for 14.8 percent of total exports, a significant increase from 1.8 percent in 2019, but in 2021, the proportion of exports to Singapore declined to 0.7 percent. The unprecedented increase in gold exports from USD 224 million in 2019 to USD 2,412 million in 2020 is primarily responsible for the sudden increase in 2020 share. While export shares for several destinations such as Japan, United Kingdom, Canada and Korea have slightly shrunk compared to pre-covid, the share for Thailand, Vietnam, India and Taiwan are more or less the same in both 2019 and 2020.

5. Changes in comparative advantage during the pandemic

We assess the change in Cambodia's comparative advantage by comparing the Revealed Comparative Advantage (RCA) index for 2019 (pre-covid) and 2020 (during COVID-19). Developed by Balassa (1965) as a measure to capture the export performance of a specific product or industry in a country, the RCA is defined as the relative share of the country's export

of the product to total export divided by the world's share of that same product to the world's total exports. The index is specified as follows:

$$RCA = \frac{\frac{X_{Ai}}{\sum_{i \epsilon P} X_{Ai}}}{\frac{X_{Wi}}{\sum_{i \epsilon P} X_{Wi}}}$$

Where:

P is the set of all export products,

X_{Ai} is country A's export of product i,

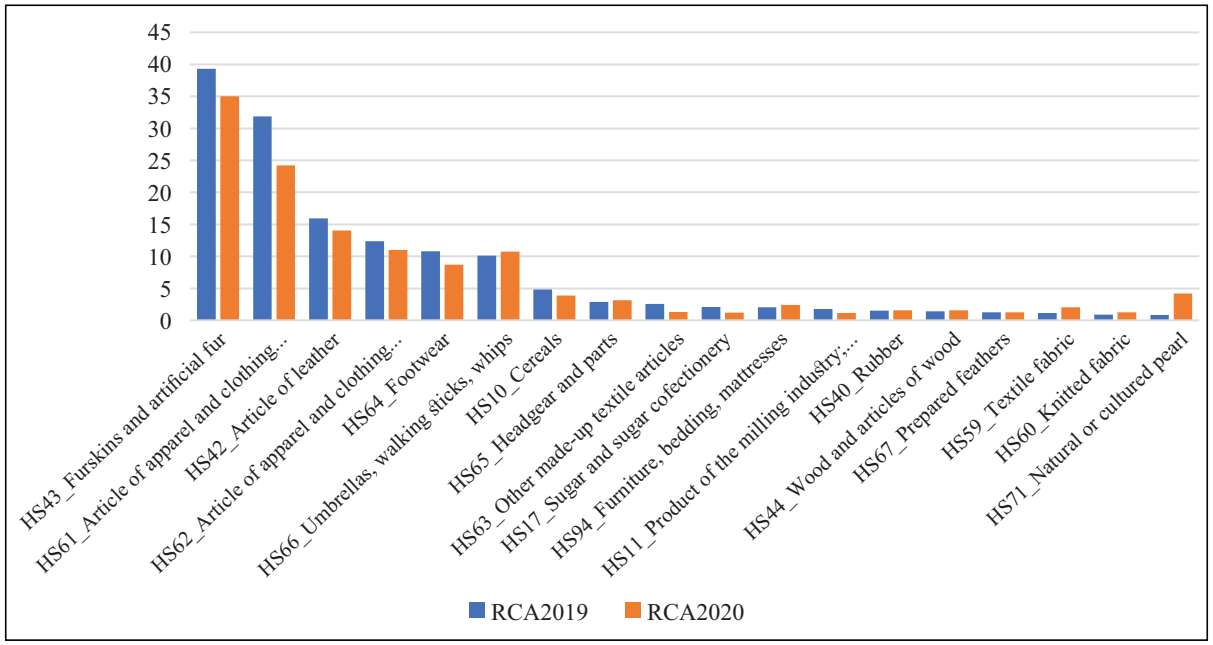
X_{Wi} is the world's export of product i,

$\sum_{i \epsilon P} X_{Ai}$ is country A's total exports (of all products j in P), and

$\sum_{i \epsilon P} X_{Wi}$ is the world's total exports (of all products j in P).

Country A is said to have a revealed comparative advantage in the product i if the RCA is greater than 1. The higher the value of RCA, the higher its export specialisation in the sector with respect to the rest of the world. Figure 5 shows the RCA of Cambodia's exports before and during COVID-19 at a 2-digit level. Before the pandemic, Cambodia is revealed to have a comparative advantage in textile and garment, footwear, raw hides and skins, rubber and plastics, wood and wood products, and a few agricultural products including cereals, sugar and products of the milling industry; these sectors remained competitive during the pandemic as RCA remains significantly greater than 1. However, the level of RCA in 2020 for most sectors is smaller than in 2019, indicating a decrease in Cambodia's export shares in the world market.

Figure 5: Cambodia's RCA at HS 2-digit product in 2019 and 2020



Source: Author's calculation based on trade data from Trade Map, accessed at https://www.trademap.org/ on 14 June 2022

To further investigate the short-term evolution of Cambodia's comparative advantage during the pandemic, we calculate RCA for the top 100 products at a 4-digit level that either Cambodia has a comparative advantage, or they are close to reaching the comparative advantage threshold. The RCA at the product level is calculated for 2019, 2020 and 2021. We also calculate the change of RCA between 2019-2020, 2020-2021 and 2019-2021 and then classify those products into four broad categories according to the extent of change in RCA as follows:

1. ***Gradual competitive loser***: refers to products with an RCA value that is decreasing over time during three periods: 2019, 2020, and 2021. The categorisation is based on the difference in RCA between the two periods benchmarking with zero. For products with a change in RCA value between 2019-2020, 2020-2021 and 2019-2021 that is negative, they are regarded as a gradual competitive losers.
2. ***Partial competitive loser***: refers to products with an RCA value that is increasing during the early stage of COVID-19 (2019-2020) but decreasing at the later stage (2020-2021) to the extent that the value of the RCA in 2021 is lower than the one in the pre-covid period (2019).
3. ***Partial competitive winner***: refers to products with an RCA value that is decreasing in 2019-2020 but gaining competitiveness back in 2020-2021 to the level that exceeds the 2019 figure. Also classified as the partial competitive winners are products that register a positive change in RCA during 2019-2020 but a negative change in RCA in 2020-2021 but the value of the RCA in 2021 remains higher than that of 2019.
4. ***Gradual competitive winner***: refer to products with an RCA value that is increasing over time during the three periods: 2019, 2020, and 2021.

Table 4 summarises the extent of change in export comparative advantage among the top 100 products (a detailed RCA for each product is given in Table 5 and Table 6 in the Appendix). Sixteen of 100 products are constantly losing the depth of comparative advantage during 2019-2021. Starch (HS 1108), for instance, has seen RCA decline from 7.19 in 2019 to 4.37 in 2020 and further to 3.39 in 2021. The decrease in export comparative advantage is in part driven by a continuous contraction in export with an annual growth rate during 2017-2021 of negative 6 percent in terms of value and 13 percent in terms of quantity. China is the largest importer of Cambodia's starch, absorbing 90 percent of total starch export. However, while China's total import of this product has grown at an annual rate of 18 percent, Cambodia's export of starch has lost considerable market share in the Chinese market as evidenced by the decrease in import share from 2.5 percent in 2018 to 0.9 percent in 2021. The lack of processing, storage and export facilities is primarily responsible for the decline in starch exports to China (RGC 2020). As a result, the majority of Cambodia's fresh cassava roots are exported to Thailand and Vietnam[15], where they are processed into starch and re-exported to China. Thailand and Vietnam are China's leading import partners for starch, with import values of $1,235 million and $287 million, respectively. The National Cassava Policy 2020-2025 recognises this challenge and establishes a long-term objective to enhance cassava's processing capacity and competitiveness.

We also observe a gradual decline in the comparative advantage of several apparel and textile products, including women's shirts and blouses (HS 6106), T-shirts (HS 6109), clothing accessories (HS 6117), women's or girls' singlets (HS 6208), babies' garments and clothing accessories (HS 6209), and blankets and travel rugs (HS 6301). Nonetheless, these products continue to account for a substantial proportion of Cambodia's total exports and remain competitive, as evidenced

15 https://opendevelopmentcambodia.net/topics/cassava/

by the RCA in 2021 being greater than 1. The total amount of exports[16] in 2021 for the combined garment and textile products classified in the gradual competitive loser quadrant amounted to USD 898 million or equivalent to 5 percent of total merchandise exported.

There are 31 top export products whose comparative advantage decreased to a lesser extent during the pandemic, with RCA falling in 2020 and then rising slightly in 2021 to a level below the pre-covid level. Rice (HS 1006) and cane or beet sugar (HS 1701) are a few agricultural products that fall within this category. The RCA analysis suggests that although they remain competitive in the export market as revealed by RCA greater than 1, the extent of their comparative advantage has decreased. Recent export statistics indicate that Cambodia exported rice worth $423,2 million in 2021, ranking ninth in the world[17]. The amount represents a 10 percent decrease from the previous year. In 2021, cane sugar exports totalled USD 43.69 million, a 20 percent decrease from the USD 54.55 million recorded in 2019. In terms of growth over the last five years, cane sugar export has had a negative annual growth at 14 percent, reflecting a gradual loss in export share and competitiveness in the world markets. Also partially losing competitive edge is a wide range of garment and textiles products (HS 50-63) and a few types of footwear (i.e., footwear with outer soles of rubber (HS 6403), umbrella (HS 6601) and artificial flowers (HS 6702)). Although the level of comparative advantage is decreasing, the exports of these products remain competitive and represent a significant proportion of the country's total exports. The sum export of garment, textile and footwear products classifying in the partial competitive loser category amounted to USD 6.35 billion in 2020 or equivalent to 36 percent of total export. The export was significantly less than in the pre-covid period but quickly recovered in 2021 reaching USD 7.09 billion.

Table 4: Classification of competitive loser/winner based change in RCA

		HS 4-digit product	No of products
1.	***Gradual* competitive loser**	- 1108; 1703; 6106; 6109; 6117; 6208; 6209; 6217 - 6301; 6405; 7602; 9113; 9404; 9507; 9603; 9616	16
2.	**Partial competitive loser**	- 1006; 1701; 4115; 4817; 5204; 5508; 6101; 6102; 6103 - 6104; 6105; 6107; 6108; 6110; 6111; 6112; 6114; 6115 - 6203; 6204; 6206; 6207; 6211; 6212; 6302; 6305; 6306 - 6310; 6403; 6601; 6702	31
3.	**Partial competitive winner**	- 6205; 4421; 6406; 7307; 9505; 904; 8712; 714; 7608 - 8447; 6307; 6309; 5211; 4106; 6402; 4104; 3925 - 2505; 4302; 6116; 6113; 7801; 6810	22
4.	***Gradual* competitive winner**	- 803; 812; 1102; 2006; 4114; 4201; 4203; 4412; 4908 - 5205; 5206; 5515; 5609; 6004; 6006; 7402; 8309 - 8470; 9109; 9403; 9405; 9605; 9615; 7401; 7402 - 8309; 8414; 8470; 8473; 8509; 8541	31
Total number of top export products			100

Next, we further investigate whether COVID-19 is the primary factor altering the export competitiveness of the aforementioned product groups or whether a combination of other factors is at play. As previously mentioned, a substantial change in the EU GSP programme granted to Cambodia has resulted in the imposition of an MFN tariff on roughly 20 percent of

16 The sum of exports for the following products: 6106, 6109, 6117, 6208, 6209, 6217 and 6301.
17 Trade Map, accessed at https://www.trademap.org/ on 14 June 2022

Cambodia's exports, primarily in the apparel and footwear industries and has consequently led to a gradual decline in export competitiveness. Furthermore, the minimum wage for the textile, garment and footwear (TGF) industries has been rising gradually since 2014 when it was set at $100 per month. In 2023, the minimum reaches USD 200[18], an increase of USD 8 increase from 2021. In addition to the minimum wage, workers receive additional monthly benefits, such as a USD 10 bonus for attendance, USD 7 for travel and accommodation expenses, USD 0.5 per day meal allowances, and USD 2 to 11 bonuses for overtime and seniority. Workers and labour rights activists have welcomed the increase in the minimum wage, arguing that it is a step towards improving the living standards of workers and reducing poverty in Cambodia. However, some employers have expressed concern that the higher wages will reduce their competitiveness and result in a decline in export and job losses (Long 2022). In an earlier analysis, Heng (2018) attributed the decline in exports of Cambodian textiles and apparel to increasingly competitive global markets, the high cost of transportation, energy, and the rising minimum wage. Therefore, we argued that the decline in comparative advantage of the previously mentioned products is due to a combination of factors, including the disruption of supply chains caused by COVID-19, a shift in Cambodia's trading partners' trade policies, and rising production costs. Given that the country is on the verge of graduating from LDC status, which results in a significant loss of preferential trade tariffs, there is a need for Cambodia to diversify its export market access through free trade agreements and to reshape its export competitiveness by upgrading export products and moving up the garment and textile value chains.

We also observe a large number of products becoming more competitive in the export markets even during the pandemic. Specifically, 22 products are partial competitive winners with RCA values in 2021 higher than the pre-Covid period. Cassava (HS 714) and pepper (HS 904) are a few agricultural products that have recorded rising export competitiveness. Although their RCA slightly declined during the pandemic (from 1.45 and 2.89 in 2019 to 1.41 and 2.22 in 2020 for cassava and pepper, respectively), their export competitiveness recovered quickly in 2021 with RCA jumping to 8.64 for cassava and 6.31 for pepper. Also gaining a certain degree of export competitiveness are unwrought lead (HS 7801), other articles of wood (HS 4421) and entertainment articles (HS 9505). Th RCA of these products were less than 1 in 2019 and 2020 but they are revealed to have comparative advantage in 2021. Other products with partial competitive gains are bicycles, some textile and footwears goods, sand, hides and skins, builders' ware of plastics, and knitting machines. Bicycles emerged as one of Cambodia's main exports, apart from garment, textile and footwear, with an export value of USD 630.67 million in 2021, representing a 16 percent annual growth over the 2017-2021 period.

On the other hand, we notice a significant increase in export comparative advantage for a number of products during the pandemic. Among them are bananas (HS 803), fruits and nuts (HS 812), cereal flour of corn (HS 1102), and vegetables (HS 2006) whose RCA has been rising significantly over the past three years, especially in 2021 (more details of RCA for the period of 2019-2021 are given in Table 5 and Table 6 in the Appendix). For example, RCA for bananas increased from 4.03 in 2019 to 13.76 in 2021. Having similar comparative advantage dynamics are fruits and nuts, and vegetables with RCA jumping from 0.01 and 6.77, respectively, in 2019 to 7.8 and 18.5 in 2021. It is worth noting that the rise of export performance for these agricultural products is largely driven by growing demands for Cambodia's products in China. In 2021, Cambodia exported a total of USD 168.29 million of bananas to the world and the amount represents a 60 percent increase from 2020. Approximately 99.7 percent of this banana

18 https://tradingeconomics.com/cambodia/minimum-wages

export went to the Chinese market[19]. The same trend is seen for other perishable products with 99.6 percent of Cambodia's USD 1.63 million fruits and nuts export and 74.8 percent of USD 52.47 vegetable export going to China. Cambodia and China have recently signed a bilateral FTA in addition to the ASEAN-China FTA and the Regional Comprehensive Economic Partnership. These trade pacts are anticipated to strengthen trade and economic ties between the two nations, thereby increasing export competitiveness (Thangavelu, Hing et al. 2022).

Export competitiveness for hides, leather and skin products has picked up rapidly in recent years. For example, articles of apparel and clothing accessories (HS 4203) and saddlery and harness for any animal (HS 4201) have gained a stronger comparative advantage as reflected by a significant increase in RCA from 2.36 for articles of apparel and clothing accessories and 4.34 for saddlery and harness in 2019 to 2.53 and 20.75, respectively, in 2021. Several machinery and transport products also record rising in export competitiveness. Calculating machines (including pocket-size data recording, reproducing and displaying machines) (HS 8470) and electro-mechanical domestic appliances (HS 8509) are among the emerging products that are becoming more competitive in the export market with RCA progressively increasing from 2.21 and 1.40, respectively, in 2019 to 3.18 and 3.14 in 2021. Other products such as calculating machines (including pocket-size data recording, reproducing and displaying machines) (HS 8470), pumps and liquid elevators (HS 8414), and machinery parts and accessories (HS 8473) have yet had comparative advantage, but their RCA is gradually increasing close to unity value. Other machinery and transport products that are not within the top 100 export products but fall within the gradual competitive winner include ball or roller bearings (HS 8482), electric motors and generators (HS 8501), electrical transformers (HS 8504), electrical ignition or starting equipment (HS 8511), electric instantaneous or storage water heaters (HS 8516), telephone sets (HS 8517), electrical apparatus for switching or protecting electrical circuits (HS 8536) and insulated wire or cable (HS 8544). The majority of these exports are machinery parts and components going to several countries in East and Southeast Asia. For example, in 2021 Cambodia exported machinery parts and accessories (HS 8473) worth USD 96.99 million, of which 63.8 percent went to Thailand and 32.9 percent to China. Similarly, the export of air and vacuum pumps (HS 8414) was recorded at USD 59.68 million with 39.6 percent of the value shipping to China, 16.7 percent to Thailand, 8.6 percent and 3.7 percent to Japan and Korea, respectively. Also growing rapidly is the export of insulated wire or cable (HS 8544) with an export sum of USD 425.4 million in 2021, a 34 percentage point growth from 2020. Approximately 40 percent of this amount was shipped to the USA, 26.3 percent to Japan, 22 percent to Thailand, and 7.7 percent to Korea. Cambodia's growing export of machinery and transport products signifies its increasing participation in regional machinery production networks.

The preceding analysis confirms the recent evidence in Obashi (2022) indicating an improvement in competitiveness (proxied by empirical comparative advantage) in (a) computers, electronics, and optics, and (b) transport equipment. Both of which reflect a more diversifying structure of production toward machinery, electronics and transport equipment that supply to regional production networks. This is also indicative of increasing participation in regional GVC. Another similar finding about the dynamic comparative advantage of Cambodia's machinery export is articulated in Thangavelu, Hing et al. (2022). The study argued that Cambodia is gradually improving its export competitiveness in higher value-added GVC activities and RCEP. This not only brings together China, Japan and Korea —the largest GVC hubs in East Asia — to the single rule-based and market-driven framework, but also has a more flexible and

19 Cambodia's banana export account for 19.6 percent of world banana export into China.

simplified Rule of Origin (ROO), and will accelerate the GVC transformation of Cambodia for greater competitiveness in parts-and-components activities in the region.

6. Implications of the shifting global trade landscape for Cambodia's trade policy

The rapidly shifting global economic landscape brought about by the COVID-19 pandemic has had significant implications for Cambodia's trade policies. Some potential implications of the complex global trade landscape after COVID-19 for Cambodia's trade policy are as follows.

1. **Enhancing trade for economic recovery**: Trade is widely perceived as a powerful medium to achieve high and sustainable economic growth. Openness to trade affects growth by: i) allowing a country to exploit its comparative advantages and thereby enhance the efficiency of resource allocation; ii) facilitating the acquisition of foreign technology and knowledge and thus raising productivity; and, iii) attracting more investment, stimulating competition, and improving efficiency and competitiveness. A widespread shift to a more liberal policy paradigm is an undisputable testimonial showing why trade matters for growth and development. During the pandemic, global demand and supply chains were disrupted causing a significant slowdown in trade. However, statistics show that global trade has rebounded at an impressive rate, suggesting that the industry may help mitigate the fiscal shock and could accelerate economic recovery. A rebound of exports helps maintain the dynamics of production and other associated commercial activities while a recovery of imports can provide necessary inputs to drive the domestic economy (WTO and WB 2021). The speed of recovery of trade in services such as travel, transportation and logistics, finance and telecommunication can determine the economic recovery prospect (WTO and WB 2021). Another central feature of trade in supporting economic recovery is digital trade or e-commerce, which is growing rapidly during the pandemic.

   There is accumulating evidence supporting the assertion that trade can contribute to economic recovery. WTO and WB (2021) indicate that GDP recovery has been faster in countries with strong pre-existing trade linkages to nations that experienced fewer COVID-19 cases. In addition, countries more integrated into GVC did better in terms of maintaining trade than countries less integrated and have had efficient and resilient economic recoveries. Furthermore, diversification of the production and export structure is an important determinant of the ability of countries to prepare for, cope with and recover from shocks (WTO and WB 2021). Similarly, Thangavelu, Urata et al. (2022) asserted that mega-regional trade agreements like RCEP are important for East Asia and ASEAN's recovery in the post-pandemic era. Such arrangements also play an important role in driving the region into the next stage of inclusive and sustainable growth for regional and global production networks and value chains.

2. **Deeper reforms and greater emphasis on regional trade**: Cambodia has pursued open and progressive trade and investment policies, which have helped the country achieve high and sustained economic growth over the past decades. It is imperative that Cambodia pursues a similar policy paradigm with an even stronger emphasis on deeper domestic reforms and integration with regional economies. The sudden change in the international economic environment associated with the pandemic is having a daunting effect on Cambodia's trade and investment-driven growth trajectory. The pandemic has highlighted the importance of regional trade for ensuring supply chain resilience and reducing dependence on distant markets. Cambodia may need to prioritise regional trade agreements, such as the ASEAN Plus One framework, RCEP as well as bilateral trade agreements to increase its access to regional markets.

Currently, Cambodia is a member of several regional FTAs such as ASEAN, the ASEAN Plus One framework and RCEP and it recently signed bilateral FTAs with China and Korea; all provide Cambodia with a dynamic framework for structural reforms and further trade liberalisation. As the country is on verge of graduating from LDC status which will lead to a significant loss of preferential market access provided under the GSP program, the Kingdom should consider forging a bilateral FTA with a broader range of potential partners. Cambodia should also monitor the progress of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and be open to participation if the opportunity arises. The economic rationale behind broadening regional economic partnerships is that mega-FTAs, such as the RCEP, not only reduce policy risks, but also support the integrity of the rules-based trading system—an important and necessary condition for trade to prosper (Kimura 2021, Thangavelu, Hing et al. 2022). Mega FTAs also provide the platform for deeper liberalisation, integration in resilient regional production networks and structural transformation in Cambodian economy (Kimura 2021, Thangavelu, Hing et al. 2022). The latest study by Thangavelu, Hing et al. (2022) provides precise evidence that the RCEP will increase Cambodia's export by 9.4 - 18 percent, which translates into a 2 - 3.8 percent increase in GDP and 3.2 - 6.2 percent growth in employment. Furthermore, the RCEP is likely to accelerate the intensity and integration of Cambodia into the regional GVC and fosters structural transformation and diversification of Cambodia's export (Thangavelu, Urata et al. 2022, Thangavelu, Hing et al. 2022). RCEP is key to post-pandemic recovery especially for LDCs like Cambodia as it allows members to utilise technical assistance, economic cooperation, and domestic capacity more resilient against external shocks such as the pandemic (Thangavelu, Urata et al. 2022, Thangavelu, Hing et al. 2022). Overall, by working closely with neighbouring countries and regional partners, Cambodia can increase market access, promote participation in regional production networks, access new technologies and expertise, and support export-oriented industries. This can help to diversify the country's economy, create more job opportunities, and promote economic recovery.

3. **Intensifying the integration in GVCs**. There are several reasons why GVCs matter for economic growth and recovery. The most important rationale relates to increasing trade and investment, enhancing greater competitiveness and growth (Cattaneo, Gereffi et al. 2013, Gereffi and Sturgeon 2013, Saito, Ruta et al. 2013), as well as fostering the performance of private sector through supplying intermediate goods and services (Cattaneo, Gereffi et al. 2013, De Backer, De Lombaerde et al. 2018). Currently, Cambodia is part of supply chains in a few manufacturing sectors. GTF is the most established GVC activity that has contributed to the country's industrial development and economic growth over the past two decades. However, GTF manufacturing, which is primarily based on low labour cost and preferential market access, provides low value-added output. Given the rising labour cost in the domestic economy and erosion of the preferential market due to the potential graduation of LDC status, there is a need for Cambodia to move up GFT value chains. In fact, the government has recently launched the "Cambodia Garment, Footwear and Travel Goods Sector Development Strategy 2022-2027" aimed at achieving a resilient and high value-added production of GTF. The strategy put forward several measures including, inter alia, strengthening human resources and upgrading skills to increase productivity; promoting domestic and foreign investment in high value-added activities; promoting investment in industries that support GTF value chains; and enhancing market diversification for GTF products. Therefore, intensifying the integration and moving

up value chains will be significant for Cambodia to further develop its trade sector for economic recovery and resilience.

The pandemic has emphasised the need for efficient trade facilitation measures to reduce trade barriers and therefore ensure the smooth flow of goods across borders. Improving trade facilitation in Cambodia requires a comprehensive approach that involves simplifying customs procedures, enhancing border infrastructure, reducing non-tariff barriers, improving regulatory transparency, increasing cooperation with neighbouring countries, improving trade-related infrastructure, and streamlining trade documentation. In the digital age and the Internet of Things, it is also important to develop ITC and other digital infrastructure to efficiently facilitate coordination and transaction with key value chain actors.

Moving up value chains requires not only a competent and skilled labour force but also a higher technological capacity of domestic economies. Therefore, it is critically important to improve the skills of the labour force and promote the adoption of higher technology. It is also crucial to improve the efficiency of the labour market through flexible labour market regulations and regular dialogue between the government, private sector and educational institutions. Evidence also suggests that science, technology and innovation (STI) are important enablers for the integration of manufacturers into the global supply chains (UNCTAD 2020a). It is, therefore, critical for Cambodia to establish a sound and conducive environment for STIs and streamline the supply process in GVCs.

4. **Greater focus on e-commerce**: COVID-19 has accelerated the shift towards e-commerce. Such a rapid digital transformation has not only lowered production and distribution costs and improved the productivity of firms, but also provided opportunities for businesses (including SMEs) to connect and reach more to customers across the globe (OECD 2019, UNCTAD 2022a). Given that both the economy and consumers are becoming more digitalised, it is crucial for Cambodia to enhance the growth of e-commerce, as it will be key in mitigating the economic slowdown and driving recovery.

   Digital trade in Cambodia has gained huge momentum, as indicated by an increase in the scale and scope of trade. Some e-commerce start-ups have seen an increase of more than 150 percent in online gross sales since the outbreak of COVID-19 (UNCTAD 2020b). In terms of market size, the Ministry of Commerce estimates that the market value of e-commerce in 2021 was approximately USD 970 million, a 19 percent increase from 2020, with a projected value of USD 1.78 billion by 2025. Despite this notable progress, Cambodia's digital trade is still under development with institutional and digital trade policy frameworks still at the nascent stage and several challenges remain that need to be addressed, including the lack of regulations, weak digital infrastructure, a low level of trust and limited e-commerce skills. It is, therefore, necessary to develop a robust digital trade ecosystem.

   As put forward in the E-commerce Strategy and Cambodia Digital Economy and Society Policy Framework (2021-2035), developing digital trade relies on strengthening digital infrastructure, providing incentives for e-commerce businesses, supporting cross-border e-commerce, building trust in e-commerce, and promoting digital marketing. Because e-commerce heavily depends on the reliability of firms' IT resources and telecommunication networks, building reliability and confidence in the digital system to protect consumers is very essential for the development of e-commerce. This rests on the development of strong legal frameworks, especially in relation to data protection and privacy, cybercrime, e-commerce ethics and on effective cybersecurity management.

The key policy suggestions discussed above are broadly consistent with the existing development paradigm that advocates for liberal trade and investment regimes, enhanced connectivity with international markets, investing in education and skills of the workforce to thrive and seize benefits from GVC, and leveraging digital transformation for trade and economic recovery. Success requires strong policy coherence, effective public and private institution involvement, and an unprecedented level of coordination and cooperation among ministries and between governments, the private sector and education institutions. Also crucial are political and economic stability, a robust favourable business climate, and ecosystems conducive to human capital and technological development. Finally, it is important for Cambodia to create leading domestic companies in key GVC activities that will provide vital linkages to regional and global activities.

7. Conclusion

In this paper, we analyse Cambodia's export performance and assess the extent to which the pandemic has so far affected Cambodia's export structure and comparative advantage. Our preceding analysis suggests that Cambodia's trade has been adversely affected by the COVID-19 outbreak with total exports contracting by 6 percent in 2020 and a further 7 percent in 2021. The effect, however, varies notably across different sectors. Service exports have been severely impacted, as evidenced by a sharp decline in export value. The rate of the decline was as much as 80 percent for travel services and 65 percent for transport services. Despite some ease of the imposed restriction such as the lifting of the travel ban or relaxation of the cross-border movement of services and people since mid-2021, service export recovery is still very slow. For merchandise exports, COVID-19 has had differential effects between the sub-sectors. Several goods such as animals, food products, textile and clothing, footwear and minerals saw their exports decline in the earlier stages of the COVID-19 outbreak, but they then recovered quickly at the later stage. We also observed exports of vegetables, transportation equipment, plastics and rubber and certain machinery products were resilient to the disruptions during the pandemic with export values in both 2020 and 2021 rising.

Our RCA analysis results revealed a mixed picture of comparative advantage dynamics. During the pandemic, a dozen of the leading export products, including a few agricultural products and several TGF products, gradually lost their comparative advantage as measured by the RCA index. The gradual decline in export comparative advantage is attributable, in part, to the rising trade costs caused by COVID-19, as well as the rising wages and the erosion of trade preference.

The rapidly shifting global economic landscape brought about by the COVID-19 pandemic has had significant implications for Cambodia's trade policy. Most importantly, Cambodia should improve trade facilitation, intensify integration into GVC , increase emphasis on regional trade partnerships, and increase its use of e-commerce, among other measures, to strengthen its trade resilience.

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Appendix

Table 5: RCA dynamic change by sector

Section	RCA2019	RCA2020	RCA2021	Change in RCA2019-2020	Change in RCA2020-2021	Change in RCA2019-2021
2. Partial competitive loser						
50-63_Textiles and Garment	12.70	9.72	11.83	-2.98	2.11	-0.87
3. Partial competitive winner						
06-15_Vegetable	1.05	0.94	1.11	-0.10	0.17	0.06
16-24_Food Products	0.32	0.22	0.32	-0.10	0.10	0.00
25-26_Minerals	0.03	0.02	0.03	-0.01	0.02	0.00
27_Fuels	0.00	0.00	0.00	0.00	0.00	0.00
64-67_Footwear	9.41	7.78	10.01	-1.64	2.24	0.60
84-85_MachElec -	0.45	0.74	0.47	0.30	-0.28	0.02
4. Constant competitive winner						
1-05_Animal	0.95	0.97	0.99	0.02	0.02	0.04
28-38_Chemicals	0.02	0.02	0.05	0.00	0.03	0.03
39-40_Plastic or	0.70	0.73	1.02	0.03	0.28	0.31
86-89_Transporta	0.27	0.34	0.46	0.06	0.12	0.19

Table 6: RCA dynamic change by 4-digit product

HS Code	Product label	RCA2019	RCA 2020	RCA 2021	Change 2019-20	Change 2020-21	Change 2019-21
1. Gradual competitive loser							
1108	Starches	7.19	4.37	3.91	-2.82	-0.47	-3.28
1703	Molasses resulting from the extraction or refining of sugar	13.69	6.06	5.44	-7.62	-0.63	-8.25
6106	Women's or girls' blouses, shirts and shirt-blouses	22.03	14.86	11.98	-7.18	-2.87	-10.05
6109	T-shirts, singlets and other vests, knitted or crocheted	24.01	17.45	17.09	-6.55	-0.36	-6.92
6117	Made-up clothing accessories	3.29	2.83	1.57	-0.46	-1.25	-1.71
6208	Women's or girls' singlets and other vests	29.09	23.42	22.85	-5.67	-0.57	-6.25
6209	Babies' garments and clothing accessories	20.60	17.40	16.58	-3.20	-0.82	-4.02
6217	Made-up clothing accessories and parts of garments	1.81	1.78	1.38	-0.03	-0.40	-0.43
6301	Blankets and travelling rugs of all types of textile materials	3.51	3.22	2.88	-0.29	-0.33	-0.63
6405	Footwear with outer soles of rubber or plastics	7.11	5.10	2.63	-2.01	-2.47	-4.48
7602	Waste and scrap, of aluminium	1.81	1.55	1.29	-0.26	-0.26	-0.52
9113	Watch straps, watch bands and watch bracelets	1.57	1.12	0.90	-0.45	-0.22	-0.67
9404	Mattress supports	3.51	3.05	0.91	-0.46	-2.14	-2.61
9507	Fishing rods, fish-hooks	1.09	0.99	0.86	-0.10	-0.13	-0.23
9603	Brooms, brushes	1.26	1.15	1.10	-0.11	-0.06	-0.17
9616	Scent sprays and similar toilet sprays	2.15	0.96	0.57	-1.19	-0.38	-1.58
2. Partial competitive loser							
1006	Rice	20.07	16.66	18.29	-3.40	1.63	-1.77
1701	Cane or beet sugar	3.07	1.75	1.95	-1.32	0.21	-1.12
4115	Composition leather	3.25	7.94	1.62	4.69	-6.32	-1.63
4817	Envelopes, letter cards	2.49	1.42	1.71	-1.07	0.29	-0.78
5204	Cotton sewing thread	15.51	0.53	2.66	-14.98	2.13	-12.85
5508	Sewing thread of man-made staple fibres	6.91	8.15	2.91	1.24	-5.24	-4.00
6101	Men's or boys' overcoats, car coats	58.53	49.90	57.76	-8.64	7.86	-0.77
6102	Women's or girls' overcoats,	42.02	30.33	32.02	-11.69	1.69	-10.00
6103	Men's or boys' suits, ensembles, jackets, blazers	57.31	34.42	38.03	-22.89	3.61	-19.28
6104	Women's or girls' suits, ensembles,	38.66	27.08	29.76	-11.58	2.68	-8.90
6105	Men's or boys' shirts,	17.11	12.40	14.19	-4.72	1.79	-2.93
6107	Men's or boys' underpants, briefs, nightshirts,	35.72	32.62	33.35	-3.10	0.73	-2.37
6108	Women's or girls' slips, petticoats	38.02	33.63	34.28	-4.39	0.65	-3.74
6110	Jerseys, pullovers, cardigans, waistcoats	25.16	21.81	23.30	-3.36	1.49	-1.86
6111	Babies' garments and clothing accessories	63.74	46.27	54.12	-17.47	7.85	-9.62
6112	Track-suits, ski-suits and swimwear	33.89	28.00	31.11	-5.89	3.11	-2.78

6114	Special garments for professional	12.27	7.86	9.67	-4.41	1.81	-2.60
6115	Pantyhose, tights, stockings, socks	2.43	1.53	1.87	-0.91	0.34	-0.57
6203	Men's or boys' suits, ensembles	12.60	9.73	11.95	-2.87	2.23	-0.65
6204	Women's or girls' suits, ensembles	14.37	12.12	12.37	-2.25	0.24	-2.00
6206	Women's or girls' blouses, shirts and shirt-blouses	9.39	7.27	7.66	-2.13	0.39	-1.74
6207	Men's or boys' singlets and other vests	18.21	11.51	14.77	-6.70	3.26	-3.44
6211	Tracksuits, ski suits, swimwear and other garments	7.31	7.78	6.51	0.47	-1.27	-0.80
6212	Brassieres, girdles, corsets, braces	9.63	8.97	9.00	-0.66	0.03	-0.64
6302	Bedlinen, table linen, toilet linen	2.25	1.48	1.84	-0.78	0.36	-0.41
6305	Sacks and bags	5.92	4.35	4.64	-1.57	0.28	-1.29
6306	Tarpaulins, awnings and sun blinds	2.00	1.59	1.81	-0.40	0.22	-0.19
6310	Used or new rags, scrap twine, cordage, rope	5.85	3.59	4.11	-2.26	0.51	-1.74
6403	Footwear with outer soles of rubber	12.33	7.84	9.34	-4.49	1.50	-3.00
6601	Umbrellas and sun umbrellas	11.10	12.07	10.04	0.97	-2.03	-1.06
6702	Artificial flowers, foliage and fruit	1.46	1.08	1.19	-0.38	0.11	-0.27
3. Partial competitive winner							
6205	Men's or boys' shirts	12.43	10.78	13.50	-1.65	2.72	1.07
4421	Other articles of wood, n.e.s.	0.01	0.00	1.58	-0.01	1.58	1.57
6406	Parts of footwear	2.92	2.29	3.01	-0.63	0.72	0.09
7307	Tube or pipe fittings	0.67	0.58	1.00	-0.08	0.42	0.34
9505	Festival, carnival or other entertainment articles	0.72	2.30	1.85	1.58	-0.44	1.14
904	Pepper of the genus Piper	2.89	2.22	6.31	-0.67	4.09	3.42
8712	Bicycles and other cycles	54.00	48.38	56.68	-5.62	8.30	2.68
714	Roots and tubers of manioc	1.45	1.41	8.64	-0.04	7.23	7.19
7608	Aluminium tubes and pipes	5.62	3.94	6.18	-1.68	2.24	0.56
8447	Knitting machines, stitch-bonding machines	0.44	2.67	0.71	2.23	-1.97	0.27
6307	Made-up articles of textile materials	2.50	0.86	3.73	-1.64	2.87	1.23
6309	Worn clothing and clothing accessories	0.61	1.07	0.81	0.46	-0.26	0.20
5211	Woven fabrics of cotton	0.13	1.41	0.55	1.27	-0.85	0.42
4106	Tanned or crust hides and skins of goats	1.47	6.37	2.37	4.90	-4.00	0.90
6402	Footwear with outer soles	9.28	8.42	11.29	-0.85	2.87	2.02
4104	Tanned or crust hides and skins of bovine	3.90	3.29	5.12	-0.61	1.83	1.22
3925	Builders' ware of plastics, n.e.s.	14.90	13.13	17.64	-1.78	4.52	2.74
2505	Natural sands of all kinds	1.94	0.51	3.71	-1.42	3.19	1.77
4302	Tanned or dressed furskins	252.81	222.27	376.52	-30.55	154.26	123.71
6116	Gloves, mittens and mitts, knitted or crocheted	7.36	5.20	8.32	-2.16	3.12	0.96

6113	Garments, knitted or crocheted,	32.05	31.45	63.02	-0.60	31.57	30.97
7801	Unwrought lead	0.24	0.20	1.73	-0.05	1.53	1.49
4. Gradual competitive winner							
803	Bananas	4.03	7.19	13.76	3.16	6.57	9.73
812	Fruit and nuts	0.00	4.31	7.80	4.31	3.50	7.80
1102	Cereal flours (excluding wheat or meslin)	1.31	2.38	3.59	1.07	1.20	2.28
2006	Vegetables, fruit, nuts, fruit-peel	6.77	8.90	18.50	2.13	9.60	11.73
4114	Chamois leather	0.57	2.34	2.53	1.76	0.19	1.96
4201	Saddlery and harness for any animal	3.03	5.27	20.75	2.24	15.48	17.72
4203	Articles of apparel and clothing accessories	2.36	2.54	4.34	0.18	1.80	1.98
4412	Plywood, veneered panel and similar laminated wood	9.81	11.71	14.74	1.89	3.03	4.92
4908	Transfers “decalcomanias”	1.11	1.11	2.69	0.00	1.58	1.59
5205	Cotton yarn other than sewing thread	0.00	0.35	0.53	0.35	0.18	0.53
5206	Cotton yarn containing predominantly	0.05	0.05	0.76	0.00	0.70	0.71
5515	Woven fabrics containing predominantly	1.00	1.47	1.59	0.46	0.12	0.59
5609	Articles of yarn, strip	1.17	1.49	3.09	0.32	1.60	1.92
6004	Knitted or crocheted fabrics	3.80	4.37	5.92	0.58	1.54	2.12
6006	Fabrics, knitted or crocheted	22.89	23.94	41.81	1.05	17.86	18.92
7402	Copper	2.15	2.65	2.86	0.51	0.20	0.71
8309	Stoppers, caps and lids	0.71	0.82	1.15	0.11	0.32	0.43
8470	Calculating machines (including pocket-size data recording, reproducing and displaying machines)	2.21	2.41	3.18	0.20	0.77	0.97
9109	Clock movements, complete and assembled	0.75	1.77	11.18	1.02	9.41	10.43
9403	Furniture and parts thereof	0.23	0.85	1.36	0.62	0.51	1.13
9405	Lamps and lighting fittings	4.80	5.66	7.85	0.86	2.19	3.05
9605	Travel sets for personal toilet	5.76	10.12	13.35	4.37	3.22	7.59
9615	Combs, hair-slides and the like	0.19	0.30	1.64	0.11	1.34	1.45
6810	Cement, concrete or artificial stone	0.02	0.19	1.32	0.18	1.13	1.30
7401	Copper mattes	22.89	23.94	41.81	1.05	17.86	18.92
7402	Copper	2.15	2.65	2.86	0.51	0.20	0.71
8309	Stoppers, caps, lids	0.71	0.82	1.15	0.11	0.32	0.43
8414	Pumps; liquid elevators	0.31	0.44	0.78	0.13	0.34	0.47
8473	Machinery; parts and accessories	0.46	0.67	0.68	0.21	0.01	0.22
8509	Electro-mechanical domestic appliances	1.40	2.06	3.14	0.67	1.08	1.74
8541	Diodes, transistors, similar semiconductor devices;	0.26	1.20	2.13	0.94	0.93	1.87

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