High but Fragile Growth: Fostering SMEs development to improve Cambodia's economic resilience

Sam, Vichet

National Bank of Cambodia

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High but Fragile Growth: Fostering SMEs development to improve Cambodia's economic resilience*

Abstract

Cambodia has recorded an impressive growth over the last two decades at around 8% per annum, but this progress remains fragile due to its export-led growth strategy with a narrow economic base, making the country highly expose to external shocks as seen during the global financial crisis in 2008-2009 and recent Covid-19 shock. This fragility can be costly for a sustainable development that requires a discussion of how to boost the resilience of the economy. Using data from various sources, this paper presents Cambodia's economic achievements since 1999, why the kingdom is highly exposed to external risks, and suggests the development of SMEs as a key element to improve the economic resilience because a strong SME sector would stimulate domestic demand through job creation, attract FDI in higher value-added sectors and assure equitable income distribution. Conditional correlation analysis has proven, among ASEAN countries, a significant negative correlation between SME sectoral development and economic volatility, while a positive correlation with economic growth is also found, suggesting that SMEs development can promote a strong and resilient growth. To boost SMEs development, Cambodia has to put more efforts, among other factors, in the formalization of SMEs, skills development for youth, infrastructure development, digital transformation process, and promotion of national savings and riel usage, as discussed and demonstrated in this paper.

JEL codes: O10, O40.

Key words: Economic development model, economic growth, economic volatility and resilience, SME development, correlation analysis.

* Author: Vichet Sam, National Bank of Cambodia (NBC).

Opinions and findings in this paper are those of the author. They do not reflect the views of NBC.

Author's contact: samvichet77@gmail.com

1. Introduction

Cambodia has been one of the fastest-growing economies in the world, but the growth rate remains fragile. Between 1999 and 2019, Cambodia recorded a growth rate of 8% on average, ranked at 8th on the world with a low and stable inflation. In addition, the growth has been also inclusive as the percentage of people living below the national income poverty line decreased from 47.8% in 2007 to about 13.5% in 2014 (ADB, 2019). Nevertheless, many individuals only moved just above the poverty line, meaning that they are likely to fall back into poverty when income shocks occur.

The concern has appeared more clearly since early 2020, following the outbreak of Covid-19 that has strongly affected Cambodia's economy. Based on IMF's last projection in October 2020, Cambodia's growth rate was projected to equal -2.8%, the first negative and lowest growth rate since 1994. The global health crisis, which becomes a global economic shock, has affected Cambodia's economy that heavily relies on external sectors, especially on the exports of garment products, tourism, construction and investments. Garment, footwear and related products, which represented around 70% of Cambodia's total exports in 2018, are reliant on preferential treatment access to EU and US (RGC, 2019), while the construction and tourism sectors are strongly dependent on China's FDI and tourists. Meanwhile, Cambodia depends a lot on imports of vegetables, fruits, meat and other consumer products from its neighbors to sustain the domestic consumption. Consequently, Cambodia's economic growth and development can be vulnerable to volatility of external conditions.

It is thus necessary for Cambodia to review its current economic development model and discuss how the country could ensure stronger and more sustainable growth, which is the main objective of this paper. Based on UNDP's recent estimation, the impacts of current shock could raise the poverty rate in Cambodia from 9.6% to 17.6% and unemployment from 0.7% to 4.8% due to the Covid-19 crisis. Meanwhile, the kingdom targeted to become an upper-middle income country by 2030 and high-income by 2050 after it has graduated to be a lower-middle income country in 2015. To become upper-middle income country, Cambodia has to reach the level of GNI per capita of 4,046 USD based on the World Bank's classification in July 2020. Compared to its level of GNI per capita of 1,480 USD in 2019, an annual average growth rate of GNI per capita of 9.6% between 2019 and 2030 is required to achieve the planned target. This is a big ambition given that the annual average rate that Cambodia has known between 2015 and 2019 only equaled 8.7%, and theoretically, the growth rate should become smaller when the country becomes more advanced. This implies that without the shock of Covid-19, Cambodia still has to look for new sources of growth to accelerate or at least sustain its current high growth rate.

To answer to the objective, this report will compile information from several reports and use various data to present key progresses and challenges in Cambodia's economy and then discuss how Cambodia can improve its economic resilience. By reviewing reports, mostly published by development partners such as World Bank, ADB and IMF, as well as their online available data, first, we will present Cambodia's economic achievement over the last two decades in comparison to its neighboring countries or those at similar stage of development, and why those achievements are still fragile. Second, a discussion of how Cambodia can build its economic resilience with an emphasis on the importance of SME development and some policy options to develop the sector will be presented. Thus, this paper contributes to existing studies on two main points. First, we synthesize up-to latest available information regarding Cambodia's economic development and present why external shocks such as global financial crisis in 2008 and Covid-19 may affect Cambodia more strongly than several other developing countries. Second, despite limited data, we try to examine the link between SME development and economic resilience on the one hand and policy options to improve the resilience through the SME development on the other hand.

The rest of paper is organized as follow. Section 2 provides a brief review on theoretical determinants of economic growth. Section 3 presents progress and risk in Cambodia's current economic model. Section 4 discusses the importance of SME development in increasing the country's economic resilience and policy options to develop the sector. Section 5 concludes.

2. Theoretical overview

The works related to economic development model can be started with the mercantilism theory that stands in contrast to the theory of free trade. Based on the concept of mercantilism that appeared between 16th and 18th century, a developed nation is identified by the volume of gold or precious metals that a nation owned**.** To accumulate the nation's wealth, a persistent surplus of exports is necessary. Hence, mercantilists are protectionist and believe that low wage with high labor supply are the key determinants to promote the country's development through competitive export prices. **After Mercantilist came the physiocrat when Quesnay publishes his articles related to "Farmers" and "Grains" in 1756 and 1757, respectively.** The physiocrat school emphasizes the importance of agriculture and defines a nation's development by the volume of production. In this model, farming land, capital investment in agriculture, and rural development are key determinants of economic progress.

Next, the classical theory, pioneered by Adam Smith and David Ricardo at late 18th century, measured economic growth by production and advocates for the free trade. They see all economic activities-agricultural and industrial production as well as commerce and international trade-contribute to a nation's wealth, in contrast to mercantilists and physiocrats. Thus, all economic factors that improve production capacity such as land, labor, capital and entrepreneurial ability, are keys to a country's progress**. In 1957, however, Solow finds that increases in labor, capital and land, explain less than half of U.S. economic growth, and emphasizes the role of technical progress.** In his model, Solow concludes that if saving and investment rates are crucial for short-run growth, it is rather the technical progress that is the main source of the country's development in the long-run. Nevertheless, the source of the technical progress is unexplained in his model that is known as the exogenous growth model.

The endogenous growth theory emerges to explain the sources of that technical progress. Triggered by Romer (1986) and Lucas (1988), several models known as endogenous models try to explain technical progress as a positive function of investments in human capital, innovation, research & development and public infrastructure. Hence, public policies are deemed to play a substantial role in this theory. Related to these models, it is also argued that fundamental factors such as macroeconomic stability, the quality of institution, legal and political systems, socio-cultural factors, demography and geography, can also have effects on capital efficiency and innovation (Petrakos et al., 2007). In addition, the degree of openness is also praised as a channel to boost economic development because trade openness and foreign direct investments would transfer technology and knowledge from more advanced countries, allowing for a catching-up process (Romer, 1990 & 1993).

One of the factors that contribute to the success of some Asian countries is due to their trade integration strategy, which provided inspiration to Cambodia's development model. Successful East Asian models of economic development like China, South Korea, Thailand, Malaysia and some other countries have relied on their trade integration into the world trade and global value chains, allowing for increasing foreign direct investment and technological development in those countries (Danju et al., 2014). Influenced by the success of those countries, in the early 1990s, the Royal Government of Cambodia began to open its economy and seek for foreign direct investment in the garment industry. Then, after gaining the full peace at the end of 1998, Cambodia started to deepen its regional and global integration and considered this as an important strategy to promote its economic development. Thanks to those pursued policies and reforms, Cambodia has recorded a remarkable growth rate and poverty reduction, yet the country has also been exposing to a high external dependency, which makes economy vulnerable to external shocks. Next section will present Cambodia's progresses over the last two decades and risks inherent in its development process.

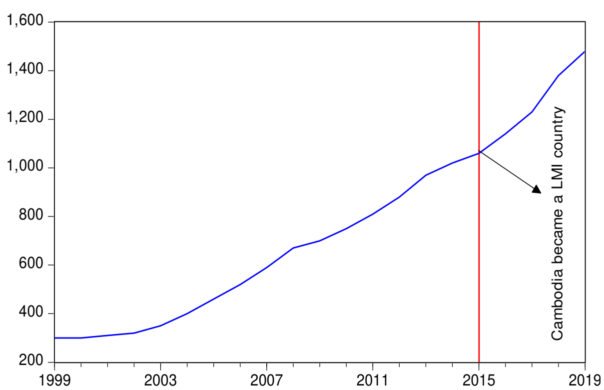
3. Cambodia's economic progress and risks

During the Khmer Rouge regime between 1975 and 1979, Cambodia considerably lost its human capital and social structures, and must wait until 1998 to be able to fully focus on rebuilding its economy. Benveniste et al. (2008) reported that 75% of university teaching staff and 96% of university students were massacred. Thus, Cambodia has not only lost its human capital but also the means to rebuild its human resources, which is a key element to develop a nation. After the Khmer rouge regime, the civil war still continued to reign over the country for around two more decades, affecting its potential development. Since the end of civil war in 1998, Cambodia has made a significant progress in terms of economic growth, but the growth remains fragile owing to its high exposure to external shocks.

3.1 Economic Progress:

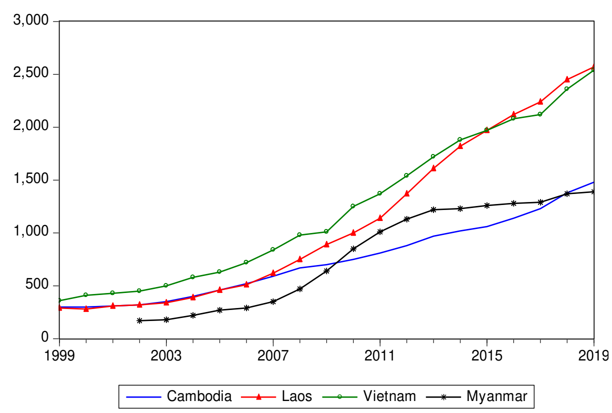
Cambodia's GNI per capita increased from 300 USD in 1999 to 1,480 USD in 2019, which equals an average annual growth rate of 8.3%, to become a lower-middle income country in 2015. This growth rate is higher than the average of lower-middle income countries (7.2%) but lower than the average of its neighboring countries such as Laos (11.5%), Myanmar (13.2%)[1] and Vietnam (10.3%).

Figure 1: Cambodia's GNI per capita (1999-2019)



Source: Author's graph, World Bank data

Figure 2: CLMV's GNI per capita (1999-2019)

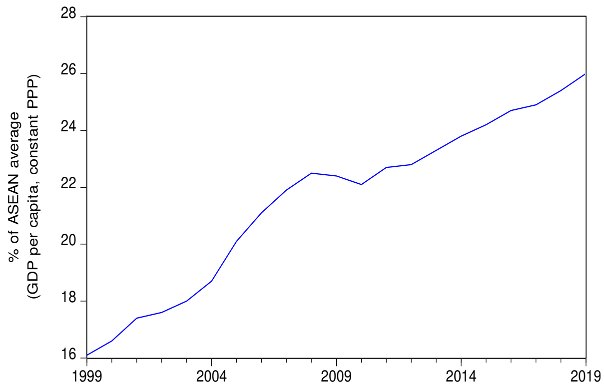


Source: Author's graph, World Bank data

This high growth rate allowed Cambodia to catch up with other ASEAN advanced countries. In 1999, Cambodia's GDP per capita, at constant PPP, equaled only 16.1% and 2.3% of ASEAN's upper-income and high-income countries, respectively, but increased up to 26% and 5.5% in 2019.

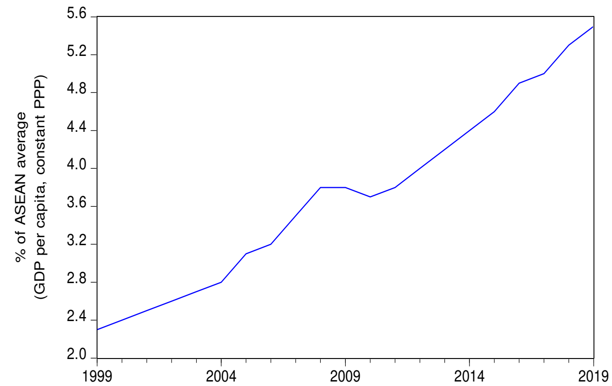
[1] This is the average between 2002 and 2019 due to missing date prior to 2002.

Figure 3: Cambodia's catch-up with ASEAN upper-income countries



Source: Author's calculation & graph, World Bank data

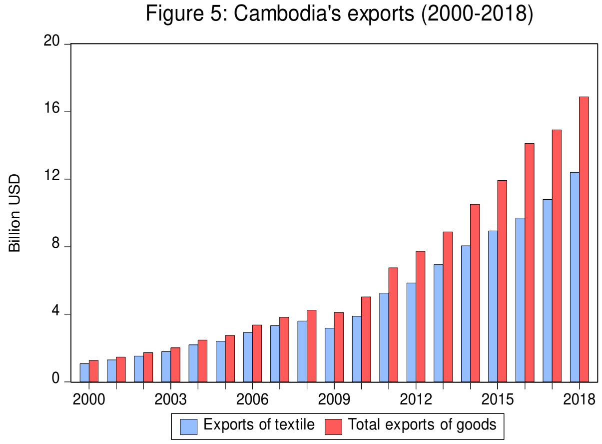
Figure 4: Cambodia's catch-up with ASEAN high-income countries



Source: Author's calculation & graph, World Bank data

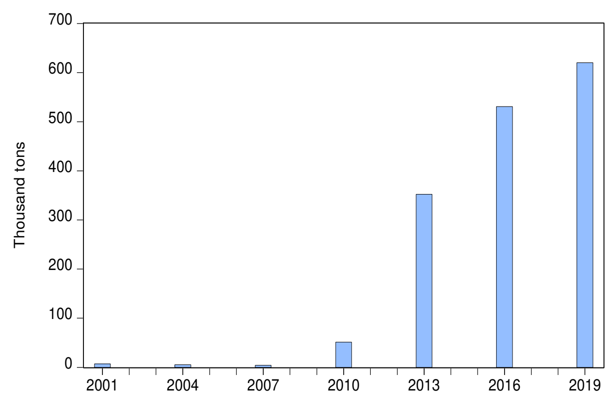
This remarkable growth is contributed by strong exports of garment related products and rice, tourism and a recent construction boom. Exports of textile, clothing and footwear increased by 11.5 times between 2000 and 2018, from 1.07 billion USD to 12.4 billion USD, yet their share in total exports decreased from 85% to 73% within the same period. This reflects the recent country's efforts in export diversification into other products such as bicycles, automobile components and electrical parts. Note that Cambodia became the European Union's number one supplier of bicycles in 2017[2] and remained the biggest supplier in 2019.[3] Meanwhile, Cambodia's rice export also greatly increased over the last 10 years from 51 thousand tons in 2010 to 620 thousand tons in 2019.

Figure 5: Cambodia's exports (2000-2018)



Source: Author's graph, Atlas data

Figure 6: Cambodia's rice export (2001-2019)



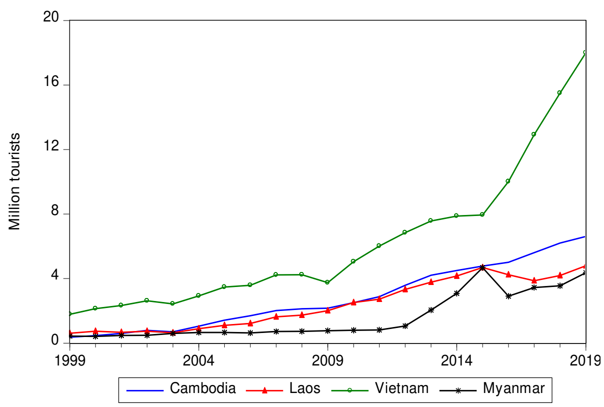
Source: Author's graph, UN Comtrade data

Cambodia also attracted record numbers of tourists that increased almost 18 times, from just 0.4 million in 1999 to 6.6 million tourists in 2019. This growth is clearly higher than neighboring countries: Laos (7.5 times), Myanmar (10 times) and Vietnam (10 times). Nevertheless, the growth rate has been

[2] Source: Cambodia Now EU's Leading Bicycle Supplier
[3] Source: Cambodia Remains EU's Biggest Bike Supplier Despite Threat of Losing GSP+ Status

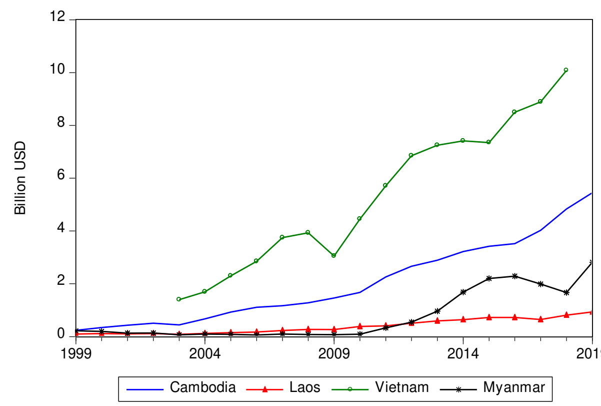
slower over the last decade: The number of international tourist arrivals in Cambodia rose by 2.6 times, higher than Laos (1.8 time), yet lower than Myanmar (5.5 times) and Vietnam (3.5 times). Looking at international tourism receipts, Cambodia earned around 5.45 billion USD in 2019, multiplied by almost 23 times compared to 1999 and more than triple of what the country earned in 2010. According to the World Travel & Tourism Council, the travel and tourism sector provided 2.37 million jobs, about 26.4% of total employment in Cambodia in 2019.

Figure 7: International tourist arrivals



Source: Author's graph, data from World Bank and national authorities

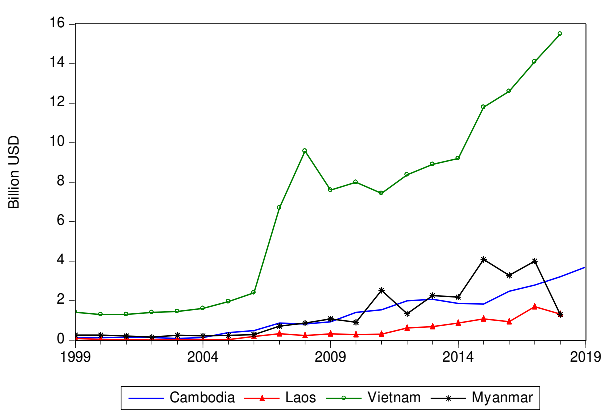
Figure 8: International tourism receipts



Source: Author's graph, data from World Bank and national authorities

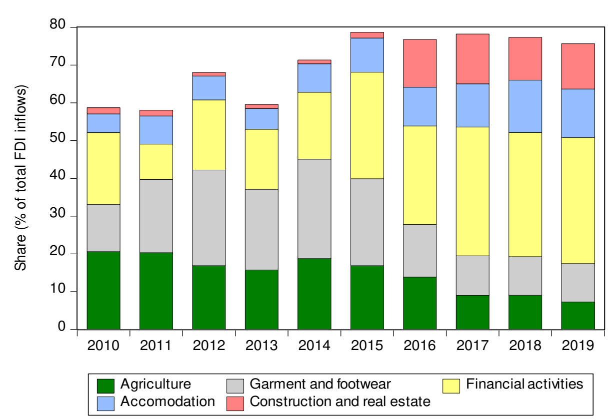
Cambodia is also an attractive destination for foreign investments. The FDI net inflows were only 0.1 billion USD in 1999 but increased to equal 3.7 billion USD in 2019. This equals an annual average growth of 19.7%, higher than the average of CLMV countries (14.5%). By sector, the composition of FDI inflows have changed over the last 6 years. The FDI inflows for agriculture and garment & footwear have started to decrease since 2014, in favor of accommodation and finance. Meanwhile, the FDI inflows to construction and real-estate sectors jumped up significantly in 2016 and remained in the top 3 sectors in 2019.

Figure 9: FDI net inflows



Source: Author's graph, World Bank data

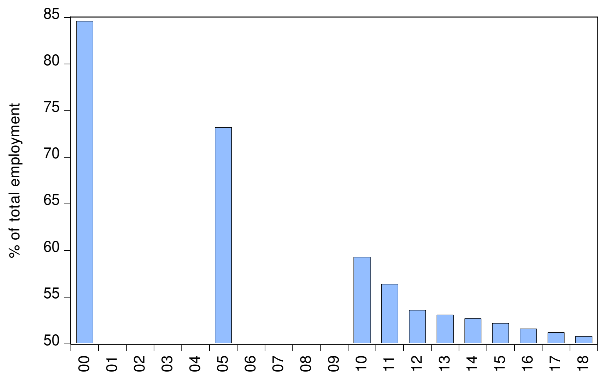
Figure 10: Share of FDI inflows by sectors



Source: Author's graph, NBC data

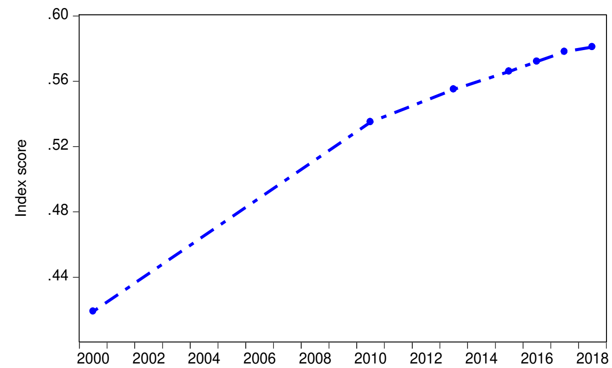
Cambodia's growth has been also inclusive with decreasing poverty rate and increasing human capital development ratio. The share of vulnerable employment, defined as the sum of the employment status groups of own-account workers and contributing family workers, declined from 84.6% in 2000 to 59.3% in 2010 and 50.8% in 2018. Meanwhile, the human capital development index has known a gradual increase from 0.419 in 2000 to 0.535 in 2010 and 0.581 in 2018.

Figure 11: Share of vulnerable employment



Source: Author's graph, World Bank data

Figure 12: Human Development Index

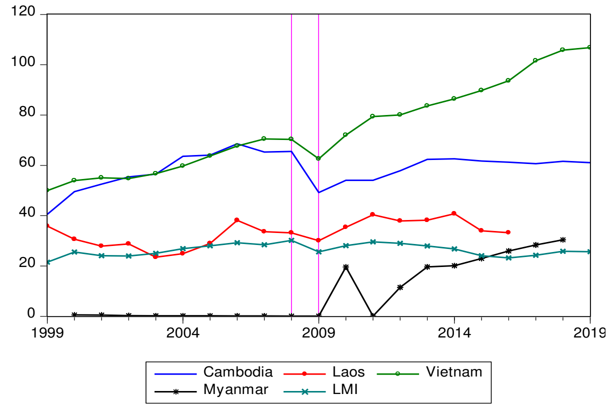


Source: Author's graph, UNDP data
Note: HDI index varies from 0 to 1. Higher score means higher development.

3.2 Economic Risks:

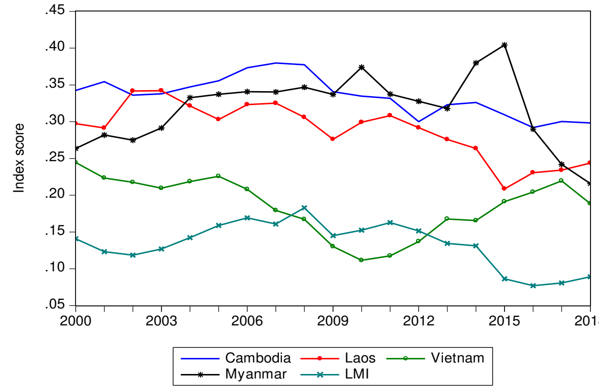
Despite the remarkable progress, Cambodia also faces major risks in its current economic model that strongly relies on external sectors and with a narrow-based source of growth. In 2019, exports of goods and services as percent of GDP equaled 61% of Cambodia's GDP, higher than the average of LMI economies that equaled only 26% but lower than Vietnam (107%). However, as noted by UNDP (2011), the level of economic openness may put the country at risk of vulnerability due to external shocks, but the scale of impact rather depends on the degree of concentration or diversification. As shown in the figures 13 and 14 below, the global economic crisis in 2008-2009 has proven more costly for Cambodia when the exports decreased from 66% in 2008 to 49% in 2009. Other countries also experienced the export declines, but the impacts were smaller. This can be explained by the fact that Cambodia's exports are more concentrated, in terms of both products and markets, than other developing countries. The value of export concentration was 0.30 in 2018 for Cambodia, while Vietnam, though highly dependent on exports, the concentration indexes was only 0.19, respectively.

Figure 13: Exports of goods and services (% of GDP)



Source: Author's graph, World Bank data

Figure 14: Export concentration index



Source: Author's graph, UNTAD data
Note: Index scores vary from 0 to 1. Higher score means higher concentration.

Indeed, despite the efforts in product and market diversification, textile and related products remain the main Cambodia's export products. Textile and related exports represented 73% of Cambodia's export (decreased from 85% in 2000), and the top 10 export destinations captured 73% of Cambodia's total exports in 2018 (decreased from 87% in 1998).

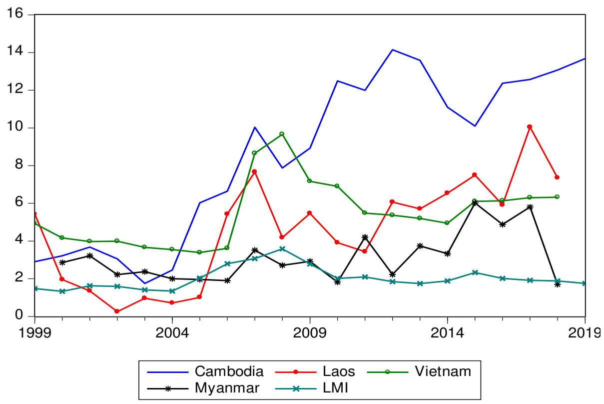
Table 1: Share of export

Export destinations	1998	2003	2008	2013	2018
USA	45.5	53.2	48.0	25.8	18.7
Top 5 countries	73.5	80.0	72.7	56.9	49.1
Top 10 countries	86.5	91.9	86.0	75.2	73.4

Source: Author's calculation, Atlas data

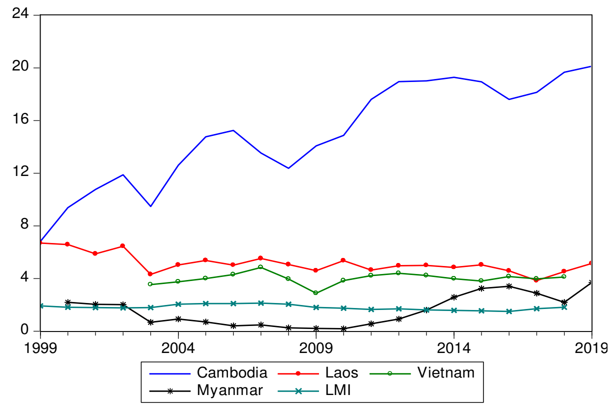
Meanwhile, Cambodia also strongly relies on FDI inflows compared to other countries, especially over the last decade. In 2019, FDI net inflows equaled 13.7% of GDP, while the average ratio of LMI was only 1.8%. In addition, FDI inflows concentrate in a few main sectors such as financial sector, garment & footwear, construction & real-estate and accommodation, which represented more than 60% of total FDI net inflows over the last 5 years (Figure 10). By country, in 2019, the People's Republic of China (PRC) alone represented 28.6% of Cambodia's FDI stock and 30.4% of FDI inflows. Looking at tourism sector, Cambodia mainly counts on the international tourism receipts, which represented 20% of its GDP in 2019, while the ratios in Laos, Myanmar, Vietnam and other LMI countries were only 5% or less. Moreover, more than one-third of foreign tourist arrivals in 2019 were from PRC only.

Figure 15: FDI net inflows (% of GDP)



Source: Author's graph, World Bank data

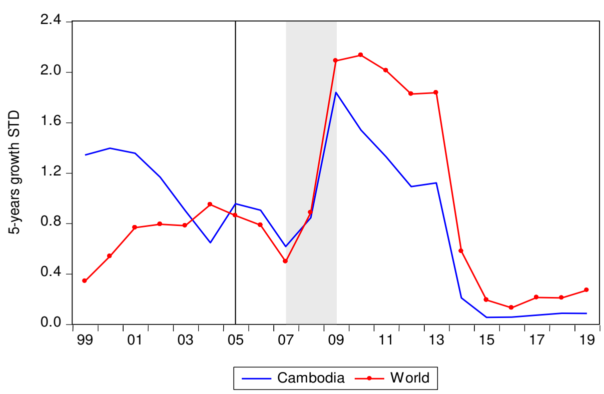
Figure 16: International tourism receipts (% of GDP)



Source: Author's calculation & graph, World Bank data

The strong dependence of Cambodia's economy on the external sectors could make the country vulnerable to external risks. To examine how Cambodia's economy is volatile to external economies, we calculate the 5-years growth standard deviations of Cambodia's and the world's economies. From Figure 17, we clearly observe that since 2005, the volatility of Cambodia's economy has been aligned with the volatility of the world's economy. For instance, between 2007 and 2009, when the world's economy was facing higher risks due to the global financial crisis, Cambodia's economy also became more volatile. Based on a simple correlation analysis for the sample between 2005 and 2009 in Table 2, we can see that Cambodia's economic volatility is strongly correlated with the world's economic volatility more than other countries.

Figure 17: Economic Volatility



Source: Author's calculation & graph, World Bank data
Note: Series are standardized to have a zero mean.

Table 2: Correlation of economic volatilities

Sample: 2005 2019	World
Cambodia	0.93
Laos	-0.19
Myanmar	0.35
Vietnam	0.40
LMI	0.36

Source: Author's calculation & graph, World Bank data

Following Vu (2020), economic vulnerability can be assessed by the gap in GDP growth between the rate observed for the "damage" year and the rate averaged for the three previous years. Based on this approach, Cambodia is more vulnerable to global economic shock than other developing countries due to their high exposures to external economies. During the global financial crisis, Cambodia's economy was reduced from an average of 9.2% to only 0.1%, equivalent to a 9.1% loss, while other selected developing countries lost only 1.2% or less. For the predicted impact of Covid-19, Cambodia could lose up to 9.9% against Vietnam (-5.4%), Myanmar (-4.6%) and Laos (-5.8%).

Table 3: Assessment of economic vulnerability to global economic shock

Countries	2006-2008 average	2009	Impact of GFC	2017-2019 average	2020	Predicted impact of Covid-19 crisis
Cambodia	9.2	0.1	-9.1	7.1	-2.8	-9.9
Laos	8.0	7.5	-0.5	6.0	0.2	-5.8
Vietnam	6.6	5.4	-1.2	7.0	1.6	-5.4
Myanmar	11.8	10.6	-1.2	6.6	2	-4.6
LMI	6.0	4.9	-1.1	5.0	NA	NA

Source: Author's calculation using World Bank and IMF data, adapted from Khuong Vu's paper (2020)

Given that Cambodia's economy is vulnerable to external shocks, the kingdom has to build its resilience by reducing its external dependence and relies more on domestic economy. Below will present how SME development can contribute to strengthening the economic resilience and some policy options to develop the sector.

4. Strengthening economic resilience: Importance of SMEs development and policy options

To increase the weight of domestic-demand-driven against export-led growth, Cambodia has to urge the development of Small and Medium Enterprises (SMEs). Cambodia is a highly open economy and relies on a few main sectors; therefore, to improve its economic resilience, the country should reduce its external dependence and relies more on its domestic consumption. The development of SME sector that would generate more local employments and thus more domestic demand, could also reduce the current account deficit through import substitutions. In addition, the development of SME sector could increase the linkage between domestic firms and export-oriented firms, allowing local companies to benefit more from technology transfers, which can become a factor to attract more FDI in higher value-added sectors, leading to more sophisticated and diversified product exports. Several papers have already discussed the development and constraints of SMEs in Cambodia such as Harner (2003), Bailey (2007), Chheang et al. (2010), Thangavelu (2017), ERIA-OECD (2018) and Sok et al. (2020). Thus, this section will start with a brief overview of Cambodia's SMEs (4.1) and then discuss why it is important to develop SME sector to build the country's economic resilience and policy options to develop the sector (4.2).

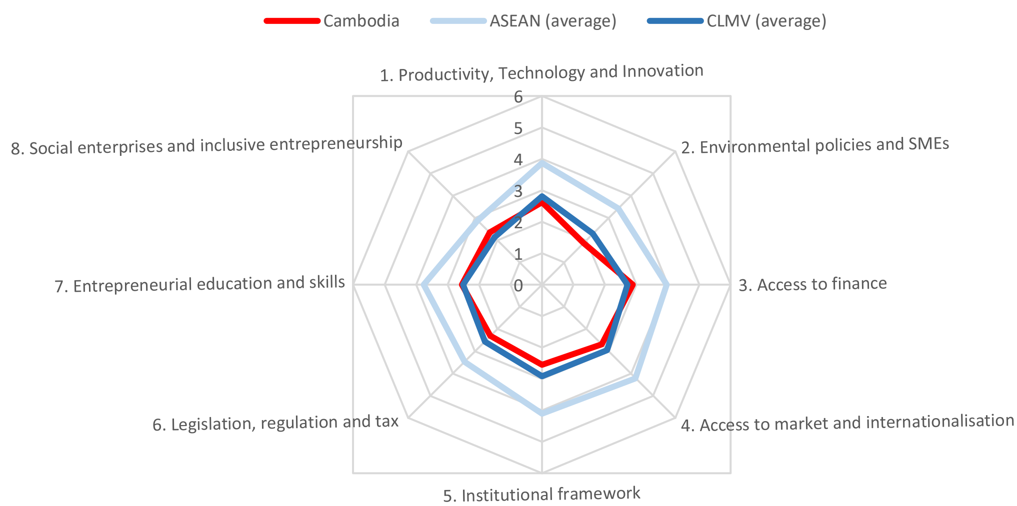
4.1 Brief Overview of Cambodia's SME

After the end of civil in 1998, Cambodia's macroeconomic situation became stable, allowing for market economy to prosper, including the SME sector. The government began to develop a series of strategies to develop private enterprises, particularly SMEs that have been playing a main role in Cambodia's economy by accounting for 99% of Cambodia's enterprises, and contributing over 70% to employment and 58% to GDP (MIH, 2018). In 2004, the Royal Government of Cambodia (RGC) launched its rectangular strategy, outlining 13 pillars to promote and develop private enterprise, and one of them concerns SME development (ERIA-OECD, 2018). In 2015, to achieve the objectives of Cambodia Vision 2030, the RGC prepared the Industrial Development Policies (IDP) in which four main pillars were identified and one of them consists of SME modernization and development. Recently, SME bank with an initial capital of 100 million USD was established in April 2020 by the Ministry of Economy and Finance to roll out the "SMEs co-financing" project between SME bank and 33 financial institutions, aiming at financing SMEs with low interest rates.

Thanks to the government's efforts, SMEs in Cambodia has known a notable progress over the past 15 years, however, several constraints remain. As mentioned in the reports of ERIA-OECD (2018) and RGC (2019), a dedicated SME strategy is not yet in place although SME development was included as a component in strategic planning related to industrial development. Infrastructure to support SMEs in their business development or innovation is still limited while the costs of energy and logistic are also high. Access to formal external finance is still quite expansive for many SMEs given that most of SMEs are in informal sector without proper financial records, which are thus perceived by financial institutions as risky for lending. Lack of entrepreneurial skills, access to market information and inadequate technical staff/resources make SMEs' products uncompetitive against foreign goods in both domestic and international markets.

Due to these constraints, the Cambodia's SME sector still underperforms relatively to several members of ASEAN countries on several dimensions. As shown in Table 3 and Figure 18 below. ERIA-OECD (2018) assessed the scope and intensity of policies across eight dimensions: 1-Productivity, technology and innovation, 2-Environmental policies and SME, 3-Access to finance, 4-Access to market and internationalization, 5-Institutional framework, 6-Legislation, regulation and tax, 7-Entrepreneurial education and skills and 8-Social enterprises and inclusive entrepreneurship. For the first 7 dimensions, the index scores for Cambodia range only between 55% and 73% of ASEAN's average, except the last dimension that the scores reach 82%. If we compare to the average of the new ASEAN member states (CLMV), Cambodia is better in three dimensions (number 3, 7 and 9-with the scores ranging between 101% and 110%) but below in other five dimensions (the scores are between 82% and 93%).

Figure 18: SME policy index scores (2018)



Source: Author's graph, data from the report of ERIA-OECD (2018)

Table 3: SME policy index scores in 2018

Dimensions	BRN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM
1. Productivity, Technology and Innovation	3.4	2.6	4.1	2.8	5.1	2.4	4.1	5.8	5.0	3.5
2. Environmental policies and SMEs	2.0	1.9	3.3	1.9	5.1	1.7	3.8	5.3	4.3	3.6
3. Access to finance	4.4	2.9	4.6	2.4	5.4	1.8	3.9	5.7	4.9	3.8
4. Access to market and internationalization	3.4	2.7	5.2	2.5	5.4	2.5	5.0	5.9	5.4	4.2
5. Institutional framework	4.0	2.6	4.4	2.9	5.9	2.2	4.4	5.9	4.9	4.1
6. Legislation, regulation and tax	3.7	2.3	3.5	2.4	4.7	2.2	3.4	5.5	3.7	3.3
7. Entrepreneurial education and skills	4.1	2.5	4.5	2.3	4.6	2.4	4.5	5.4	4.5	2.8
8. Social enterprises and inclusive entrepreneurship	2.3	2.4	3.2	2.1	4.0	1.7	3.7	4.0	3.1	2.4

Source: ERIA-OECD (2018)

4.2 SME Development: Importance and Policy Options

A key factor for the "growth miracle" of Asian Tigers between 1970s and the mid-1990s has been the "export boom", however, the Asian financial crisis has proven costly for those countries, pushing them to consider domestic demand-driven growth strategy. Thanks to their export-led growth strategy, the four Asian Tigers, South Korea, Taiwan, Singapore and Hong Kong underwent rapid industrialization and maintained exceptionally high growth rates for a long period. Nevertheless, these economies experienced a setback in the 1997 Asian financial crisis, encouraging them to consider a gradual switch towards a domestic demand-driven growth strategy, which focuses on the increase in domestic consumption and investment, and enhances the production capacity in response to domestic demands (Anderson, 2002).

Importance of SME development:

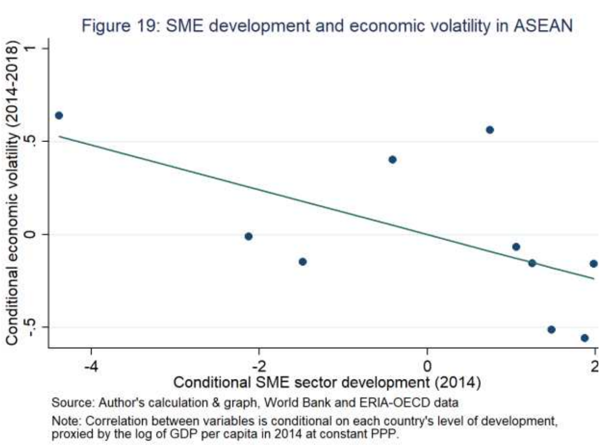
Small and medium enterprises (SMEs) can stimulate domestic demand through job creation, industrial base expansion and competition; thus, they can be a driving force behind a resilient national economy (Shinozaki, 2014). In addition, the promotion of SMEs could also lead to a dispersal of economic activities to small towns and rural areas, which would reduce the income inequality (Perkins et al., 2001; Huang, 2003). Meanwhile, in the later stages of development, SMEs can form industrial clusters and position themselves near large enterprises, which enable them to reduce cost and acquire better facilities and knowledge from large firms (Perkins et al., 2001; Huang, 2003). In ASEAN countries, as shown in the Table 4 below, Micro, small and medium-size enterprises represent between 96-99% of the total enterprise and account for more than two-thirds of total employment (69% on average and 71% based on the median value). This proves that a strong development of SME sector could have a big impact on the country's progress, especially in terms of equitable income distribution and rural development, which are the keys to unlock domestic development based on the experiences of industrialized economies (Palley, 2002).

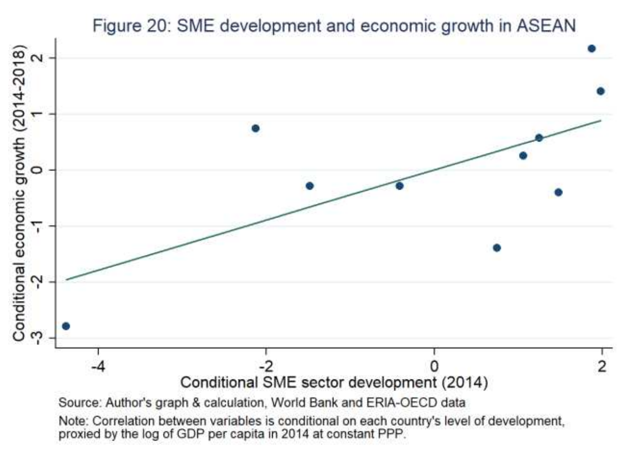
Table 4: Important role of SME in ASEAN countries

	Number of enterprises (% of total)	Number of employees (% of total)
Brunei	96.5	54.5
Cambodia	99.8	71.7
Indonesia	99	87.8
Lao	99.8	82.2
Malaysia	98.4	65.3
Myanmar	99.4	80
Philippines	99.6	63.3

Singapore	99	65
Thailand	99.7	78.5
Vietnam	98	64
Source: ERIA-OECD (2018)		

Previous research works also find out that SMEs were less impacted during economic crisis than large firms due to SMEs' flexible production processes (Berry et al., 2001), their low dependency on imported materials (Wengel and Rodriguez, 2006). Hence, countries with higher development of SME sector could be more resilient to external risks. To examine this statement, first, we use SME policy index scores for 8 dimensions as shown in Table 3 above to calculate the Principal Component Scores that is used as a proxy variable for SME sector development in each ASEAN countries. Then, we correlate this variable with economic volatility variable proxied by the 5-years growth rate standard deviation. Because we would like to see whether SME sector development may have effects on economic volatility, we rather use the data on SME development in 2014 than in 2018 and correlate with economic volatility in the period between 2014 and 2018. Given that the level of SME sector development and economic resilience could be higher in more developed countries, the correlation between these two variables is conditional on each country's level of development proxied by the log of GDP per capita in 2014 at constant PPP. The figure 19 below shows a significant correlation between SME sector development and economic resilience: Countries with a strong SME development tend to experience a less volatile growth. We may also argue that a lower economic volatility is achieved with a trade-off between lower volatility and lower growth. However, from the Figure 20, SME development is strongly correlated with higher growth rate. This supports the argument that SME leads to a robust and resilient economic growth rate.



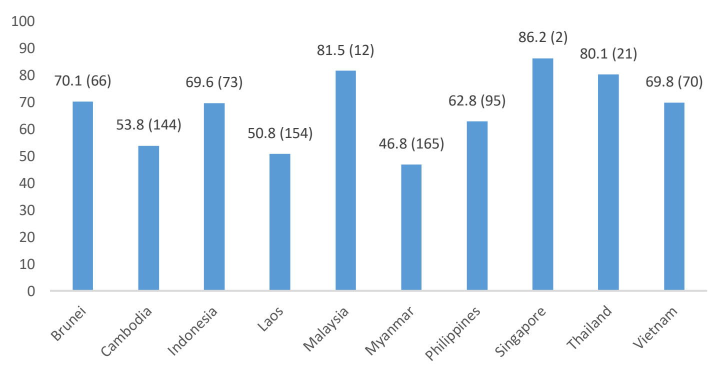


Promoting SME development: Policy options

- *Regulations and formalization of SME*

Cambodia has significantly improved its investment climate but still lags behind many other countries according to the World Bank's report "Doing Business 2020". The Cambodia's scores on the ease of doing business equals 53.8, placing the country in the 144th position out of 190 countries, better than only Laos (154th) and Myanmar (165th) in the region (Figure 21).

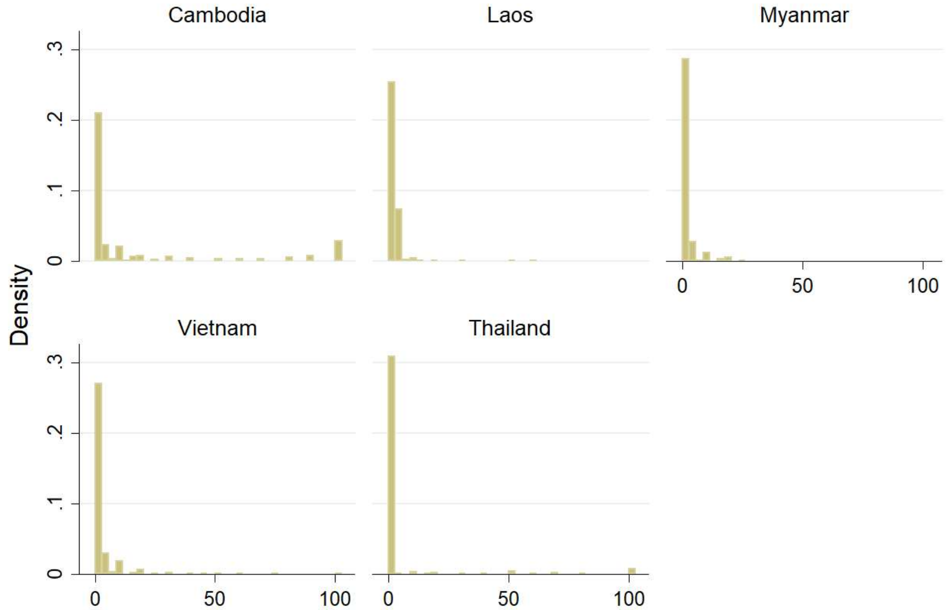
Figure 21: DB score (DB rank)



Source: Author's graph using data from "Doing Business" report 2020
Note: Scores vary from 0 to 100.

Based on the report of ERIA-OECD (2018), in Cambodia, institutional framework for SME policy is still underdeveloped, while laws and regulations are still burdensome. Similarly, Sok et al. (2020), based on interviewed experts, stated that business regulation and regulatory practice only slightly improved despite the government's efforts to address the existing constraints. Meanwhile, in their report, interviewed SMEs have not expressed high hopes about any reform agendas, which could be due to the coordination issues between relevant ministries and institutions. For instance, using the enterprise surveys conducted by the World Bank in 2015 and 2016, Cambodian firms spent much more time than firms in neighboring countries to deal with government regulations as shown in the Figure 22 below.

Figure 22: Percent of senior management time spent on dealing with goverment regulations



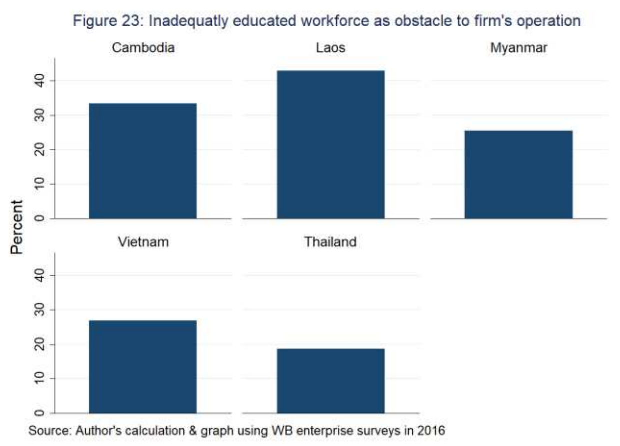
Source: Author's graph using World Bank enteprise surveys data in 2015 and 2016

Thus, complex regulations and standards could be one of the reasons that explain Cambodian SME limited participation in regional market and why many of them decide to stay in the informal sector (RGC, 2019). Without formalization, it would be difficult for SMEs to access to formal financial services for expanding their business, to foreign firms in Cambodia for absorbing their technologies and to export markets for promoting their products, which, all of these, would hinder their growth and development. For instance, Cunningham and Hollweg (2019) found that foreign-owned manufacturing firms in Cambodia imported about 95 percent of their production inputs.

To address those issues, developing a targeted SME strategy with technical assistance from development partners, specially aiming at improving the SME formalization, providing market information to SMEs, and matching domestic SMEs and foreign firms should be considered. So far, Cambodia has developed a number of strategic plan as mentioned in the Royal Government's Rectangular Strategy, Industrial Development Policy (IDP) and Cambodia's Trade Integration Strategy (CTIS), but a targeted SME strategy is still missing (ERIA-OECD, 2018). In this manner, engaging and building more trust between public institutions and SMEs will improve the business formalization process, while creating SME center and information portal is critical in helping SMEs to access to market opportunities and searching for potential partners that can be local or foreign firms (Sok et al., 2020).

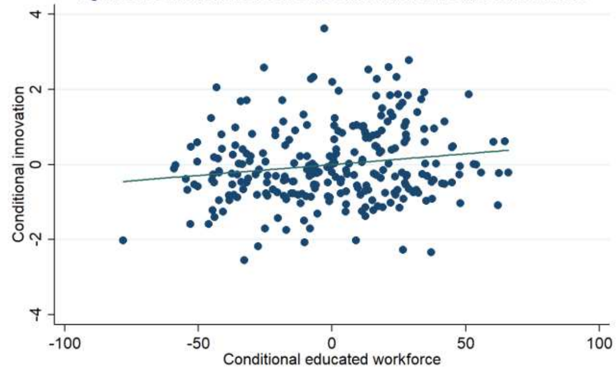
- *Education and skill development*

Lack of skills is still among the most prominent challenges in Cambodia. 94 percent of jobs are in low-skilled occupations, with managers and professionals accounting for less than 5 percent of all jobs in Cambodia (Cunningham and Hollweg, 2019). This number reflects both the lack of skills and the economic capacity in generating high-skilled jobs. According to the World Bank's Enterprise Surveys in 2016, 33.5% of Cambodian firms identified an" inadequately skilled labor force" as a main obstacle to their operations. This is better than Laos (43%), but worse than Myanmar (25.8%), Vietnam (26.8%) and Thailand (18.6%).



The lack of skilled labor would hinder not only firms' production and reduces current profits, but it also slows down firms' innovation and development (Cunningham and Hollweg, 2019). Using the World Bank's Cambodian enterprise survey in 2016, we construct a variable as a proxy for the level of firms' innovation, defined as firms that introduced new or significantly improved products or services, methods of manufacturing products or offering services, organizational structures or management practices, marketing methods, and spent on formal research & development activities during the last three years. Meanwhile, we define educated workforce as the percent of employees with at least high school completion. Results show that Cambodian SMEs, defined as firms with less than 100 employees, tend to innovate more if they have a higher proportion of educated workforce, although we control a number of variables such as firm size, number of years in operation, experiences of top managers, industry, region, size of locality, usage of technology, size of last year's investment and degree of export-orientation (Figure 24).

Figure 24: Correlation between SME's innovation and educated workforce



Source: Author's calculation & graph using WB Cambodian enterprise survey in 2016

Note: The correlation is significant at the 5% level after controlling for firm size, number of year in operation, experiences of top managers, industry, region, size of locality, usage of technology, size of last year's investment, export-orientation.

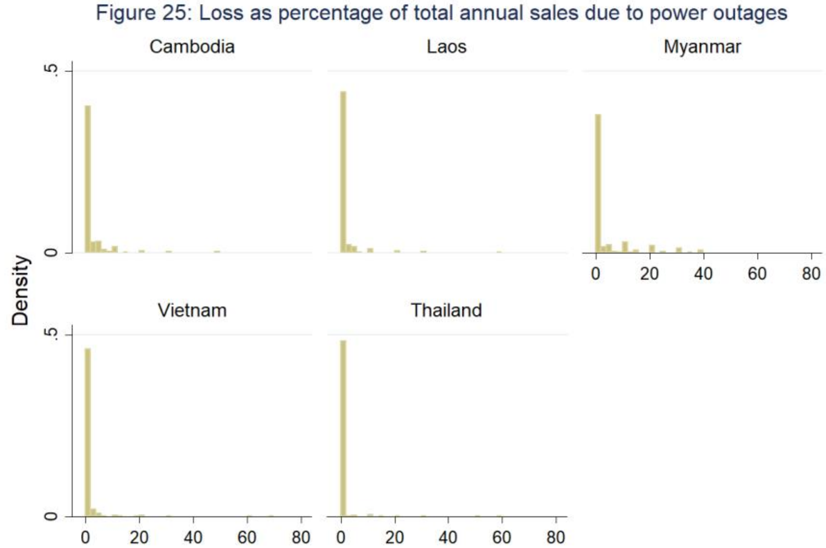
Under the mandates of the new Minister of the Ministry of Education Youth and Sports (MoEYS), a number of improvements has been observed. Competencies of teachers, quality of curriculum and school exam (especially grade 12), an increasing number of students who are interested in STEM field have been improving in recent years. Meanwhile, the creation of the National Employment Agency (NEA) in 2009 under the Ministry of Labor and Vocational Training (MLVT) also improved the collection and analysis of labor market information to guide youth in their career choice. Recently, MoEYS and MLTV have also strengthened their cooperation such as school visits to provide career guidance, and they are now working together on a joint project “Career Guidance and Counselling in Secondary Schools – the bridge to employment” in order to better link education sector to job market and to enhance career development of Cambodian youths. In addition, the Education Strategic Plans of MoEYS 2019-2023 and the National Technical and Vocational Education and Training Policy 2017-2025 have well defined objectives and strategies to respond to the needs of the education and skill training sector.

Nevertheless, some important challenges remain that require more action plans to deal with. First, the gap in education quality between urban and rural areas still pronounces, and given the impact of recent Covid-19 outbreak that has increased online learnings could widen the education quality between these two areas. Second, Cambodia’s educational system still bases on “memorization” approach over creativity and problem-solving method, which can also be observed in the NEA employment outlook study (2018) that the lack of critical thinking, problem-solving and related skills are cited by many employers. This requires a very different approach in pedagogy, which means that many teachers have to be retrained as well. Third, internships should be encouraged at high schools and compulsory at universities, so that students can acquire professional experiences and information in the labor market, and learn about their potentiality and career preferences. Fourth, linking to the third point, public-private partnerships is very crucial because private companies can provide internship positions to be incorporated in students' training curriculum, and help to identify skills needed given that they are directly confronted with technological changes and market demands shifts in their industry. Fourth, the MoEYS should develop a culture of evaluating the performance of each schools, especially HEI that seem to be fragmented in terms of quality, and disseminate the results. This will push all universities to compete more in terms of quality, and will also help students in their decision to select a major and an HEI.

- *Development of infrastructure*

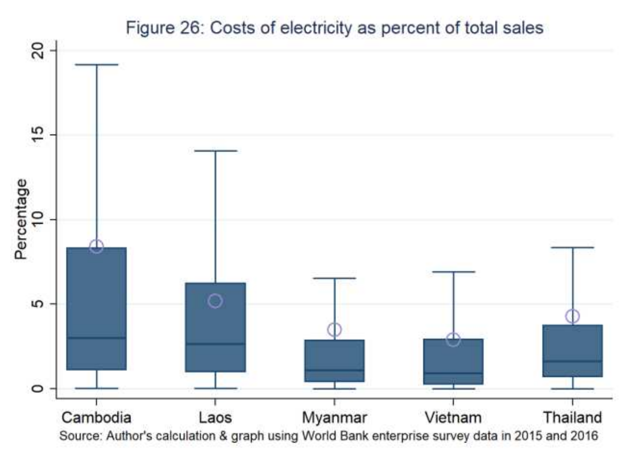
Sok et al. (2020) has interviewed a number of experts and many of them highlighted that the multiple power cuts that the country experienced during the dry season in 2019 and previous years have costed SME a lot as they had to shut down their production line and running machinery. For instance, using the World Bank enterprise surveys, Cambodia's firms have lost on average 1.64% of total annual sales due to power outages, which is higher than Laos (1.1%), Vietnam (0.7%) and Thailand (0.5%), but lower than Myanmar (3.47%).

Figure 25: Loss as percentage of total annual sales due to power outages

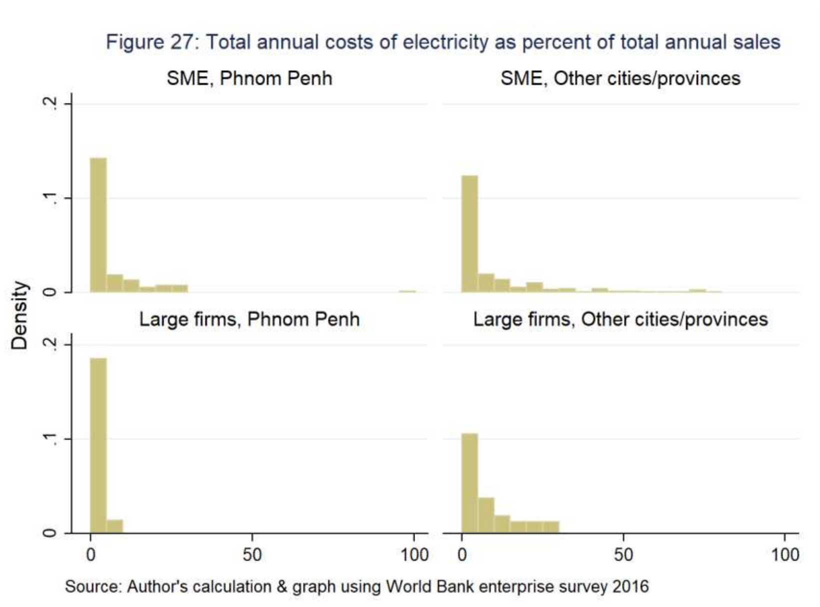


Source: Author's graph using World Bank enterprise surveys in 2015 and 2016

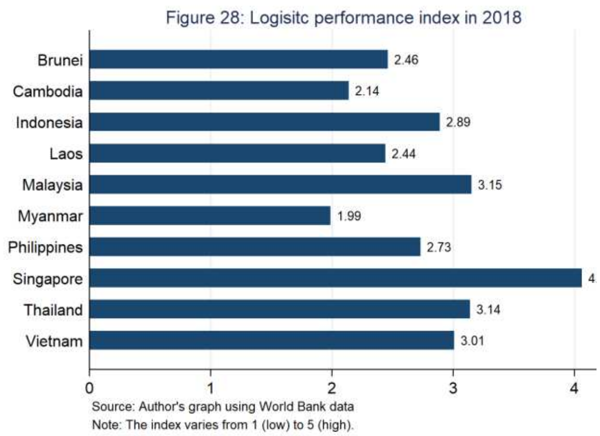
The cost of electricity also seems to be higher in Cambodia than its neighboring countries. As shown in Figure 28, the costs of electricity as percent of total sales equaled 8.4% in Cambodia, higher than Laos (5.2%), Myanmar (3.5%), Vietnam (2.9%) and Thailand (4.3%). The variability of electricity costs is also high in Cambodia, suggesting a possible large difference in terms of electricity access across areas within the country.

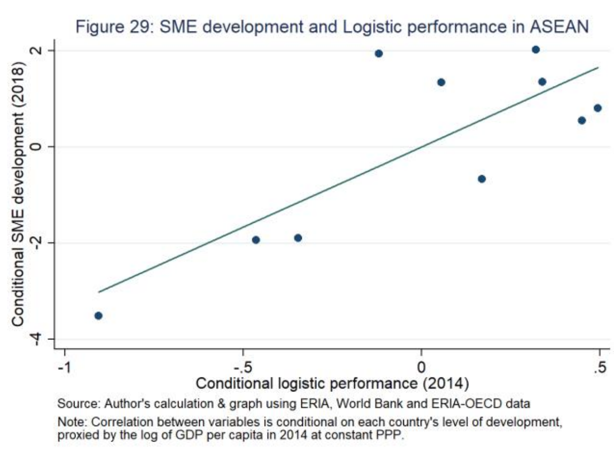


Indeed, by regions and types of firms, we observe that the cost of electricity is higher for SMEs and in outside the Capital than for larger firms and in Phnom Penh. On average, the total annual costs of electricity as percent of total annual sales equaled 9% for SMEs and 5% for large firms, especially in Phnom Penh (6.3% against 2%), while it is less pronounced in other cities provinces (10.4% against 8%). Thus, Cambodia has to make more efforts in providing affordable electricity costs to SMES and firms outside Phnom Penh.



The transportation and logistics costs remain higher than in neighboring countries and these costs could strongly affect SMEs when they grow larger and engage more in GVC activities such as exporting and importing (Sok et al., 2020). Based on the World Bank data, Cambodia's logistic performance index in 2018 was 2.14, higher than only Myanmar in ASEAN. Meanwhile, it is found that the logistic performance is strongly correlated with the SME development as shown in Figure 29.

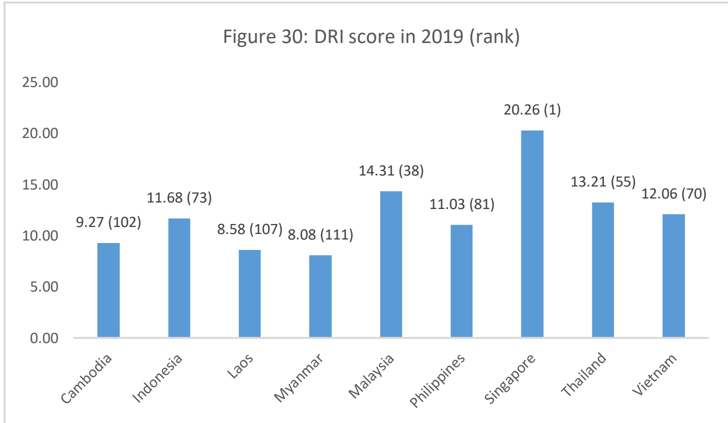




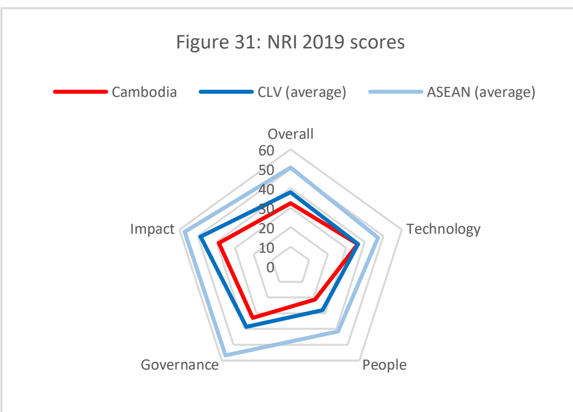
Removing informal payments that is still a significant cost is crucial to improve the country's competitiveness. Informal charges were estimated at about 48 percent of the logistics administration cost or represent about 4.38 percent of total annual logistics costs in 2017 (RGC, 2019). Though recent diversification from garments into new sectors such as electronics and bicycles is helping Cambodia to climb up the value chain, this trend can only be continued if challenges regarding high electricity and logistic costs are addressed such as increasing investment in logistical infrastructure and adopting a comprehensive strategy to remove informal payments (RGC, 2019).

- *Promoting digitalization*

Being aware of the importance of new technologies and digitalization in boosting productivity, reducing costs and upgrading economy, Cambodia set out a plan in 2018 to transform its economy into a digital economy by 2023 (Heng, 2018), but more works need to be done. With the increasing FDI inflows and demographic dividend, the country has an opportunity to receive technological spillovers from more advanced countries. Nevertheless, Cambodia still lags behind other ASEAN countries in terms of digital readiness based on the Digital Readiness Index (DRI) and the Network Readiness Index (NRI) in 2019. As shown in the Figure 30 below, Cambodia's overall score for DRI in 2019 was 9.72/25, considered as low and beyond only Laos and Myanmar in ASEAN, placing at 102nd out of 141 countries. Meanwhile, the NRI in 2019 also reveals similar results (Figure 31 and Table 5).



Source: Author's graph using data from CISCO.
Note: The maximum score is 25. There are data available on 141 countries.



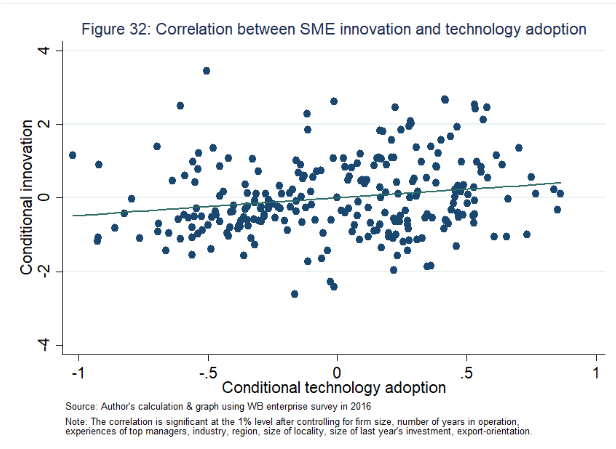
Source: Author's graph using data from the report Portulans Institute (2019).
Note: The maximum score is 100. There are data available on 120 economies.

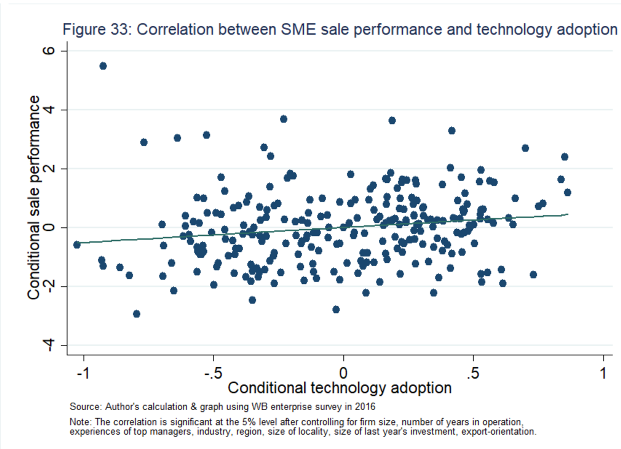
Table 5: Network Readiness Index 2019

	Overall	Technology	People	Governance	Impact
Cambodia	32.29	36.24	21.28	32.92	38.71
Indonesia	46.15	41.56	34.77	60.57	47.7
Laos	31.88	28.19	25.21	26.32	47.82
Malaysia	63.76	59.49	55.62	75.92	64.01
Philippines	47.7	38.93	42.22	51.84	57.81
Singapore	82.13	78.45	73.55	88.19	88.33
Thailand	51.54	49.61	41.16	61.61	53.8
Vietnam	49.57	44.79	37.69	56.6	59.2

Source: Author's table using data from the report Portulans Institute (2019).
Note: The maximum score is 100. There are data available on 120 economies.

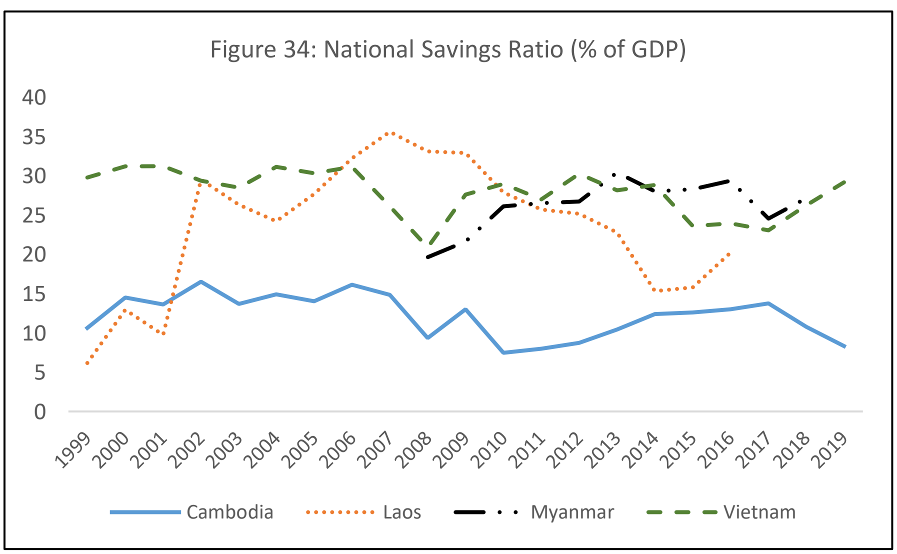
Technology adoption is found to be positively correlated with innovation and performances of SMEs in Cambodia, but the adoption rate is relatively lower than neighboring countries. Using the World Bank's enterprise survey, technology adoption, proxied by using email to contact clients and suppliers and/or having own website, is found to be correlated with SME's innovation and sale performances in Cambodia, conditional on firm size (in terms of number of employees), number of years in operation, experiences of top managers, industry, region, size of locality, size of last year's investment and degree of export-orientation (Figures 32 and 33). However, technology adoption by firms in Cambodia remained low compared to those in Thailand and Vietnam, with 27.6% of firms in Cambodia had a website based on the World Bank's enterprise surveys against 51% in Thailand and 48.19% in Vietnam, but this rate is higher than firms in Laos (24.2%) and Myanmar (16.5%).





- *Promotion of national savings and riel usage*

Cambodia's gross domestic savings rate is relatively lower than its neighboring countries, which could have a limited impact on boosting domestic investments. Based on Figure 34 below, over the last decade, Cambodia's saving rate only equaled 10.6% of its GDP, lower than Laos (21.8%), Myanmar (27.5%) and Vietnam (26.9%). Cambodia's low national savings rate can be due to its tragic history during the genocide regime and a lack of domestic debt market, which can allow public to invest their long-term savings (World Bank, 2018). However, to boost domestic investment and decrease the cost of access to finance for local firms, increasing national savings rate is crucial.

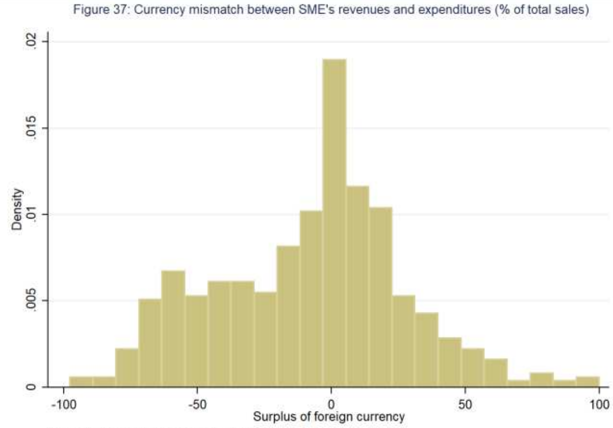


Source: Author's calculation & graph using World Bank data.

Note: National saving is defined as the sum of investment rate and current account balance.

Meanwhile, promoting the use of local currency is also necessary to reduce the exposure of SMEs to foreign exchange rate risks, which may affect their incentives in borrowing funds to expand the scale of their operations. As found by Cunningham and Hollweg (2019), the US dollar appreciation against the euro resulted in a decline in Cambodian garment exports to the EU and may also impact the tourist sector because dollar appreciation makes more expensive for non-American tourists. As a result, SME in these sectors would be affected. In addition, dollarization also makes several firms facing currency mismatch between their revenues and expenditures as shown in the Figure 35 below. Currency mismatch leads SME to expose to foreign exchange rate risks, and as a result, they can be more reluctant to borrow money, and if they do, they may also tend to borrow with a lower amount.

Figure 37: Currency mismatch between SME's revenues and expenditures (% of total sales)



Source: Author's graph using NBC-JICA survey 2017

To increase national savings and the use of local currency, the development of a domestic bond market should help. A recent research has also found that domestic bond markets significantly promoted savings and reduced financial dollarization in developing countries by providing more saving options in the local currency for local residents and intensifying the competition in financial sector, which pushes financial institutions to develop new financial products denominated in local currency (Balima, 2017). Meanwhile, encouraging price quotations and payments of goods and services in riel, raising public awareness and preparing a national strategy on riel promotion are required to coordinate efforts, increase policies' efficiency at increasing the demand for riel and de-dollarizing the economy on a gradual basis.

5. Conclusion

Cambodia has been among the fastest growing economies over the last two decades, but the growth rates remain fragile to external shocks due to its heavy reliance on external sectors and the narrow base of its economy. Meanwhile, Cambodia is on the way to graduate from being a least-developed country, meaning that the country is going to lose the trade preferences and would be less competitive in garment and related sector than Bangladesh and Myanmar where minimum wages are much lower. Thus, to upgrade the economy as well as to build economic resilience, fostering SME development is a solution because this would generate more local employments and demand, while reduce the current account deficit through import substitutions.

Nevertheless, to promote SME development, Cambodia has to remove several obstacles, starting from improving regulations and governance as the current investment climate related to formalization and business start-up is still weak. Second, boosting skill development and human capital is crucial as both quantity and quality of education are still low. Third, continuing to build infrastructure that remains inadequate and reducing logistic costs (including informal payments) that are relatively high. Fourth, increasing digitalization adoption given the limited digital adoption by Cambodia’s firms relatively to neighboring countries. Fifth, promoting national savings and stimulating the use of local currency are also necessary to support the SME sector. Meanwhile, coordination of policy actions between public institutions and between public and private sectors are also important to increase the effectiveness of implemented policies.

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