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Investment Facilitation and Promotion in Cambodia: Impact of Provincial-level Characteristics on Multinational Activities

Shandre Mugan THANGAVELU
Jeffrey Cheah Institute for Southeast Asia, Sunway University
Institute for International University, University of Adelaide[1]

Leng SOKLONG
Deputy Director, Ministry of Economy and Finance, Cambodia

Vutha HING
Institute for International Trade, University of Adelaide

Ratha KONG
Institute for International Trade, University of Adelaide

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Abstract: *This paper examines the foreign direct investment policy of Cambodia in terms of investment promotion and facilitation. The study examines the key factors affecting the location of foreign firms (with more than 10% ownership) in Cambodia accounting for key provincial-level (18 provinces) characteristics, such as infrastructure (roads), population density (young population), special economic zones (SEZs), the number of establishments, poverty rate, rainfall, water supply, electricity supply, sharing of an international border, sharing a coastal area, and consumption per capita. The paper uses administrative data from the Council for Development of Cambodia, which manages foreign direct investment and the special economic zones in Cambodia. The study consists of nearly 500 foreign firms that have been approved to invest in Cambodia from 2017 to 2020. The results indicate a positive impact of road infrastructure (national and provincial roads) on foreign investment activities as it improves the movement of people and goods, reduces transaction costs, increases market access, and increases the service linkages within the domestic economy. At the provincial level, we observe that electricity supply, rainfall (water supply), land area, and a young working population have a positive impact on the investment decisions of foreign investors in the provinces of Cambodia. We also observe a negative impact of SEZs on foreign investment in Cambodia. The results indicate an urgent need for structural transformation of the Cambodian economy in terms of investment in soft and hard infrastructure and the development of the critical skills and human capital of the labour force. It is important to improve and upgrade the SEZs with key technologies and innovation to be more competitive in attracting foreign investment activities, which will be critical for increasing the competitiveness of Cambodian industries in global value chain activities.*

Keywords: Cambodia, Investment Facilitation

JEL Classification: F2, F23, O11

[1] Corresponding author: Shandrethangavelu@gmail.com. We would like to thank Shujiro Urata for his constructive and helpful comments in improving the paper. We would also like to thank the GRIPS-ERIA workshop participants for their constructive comments on the paper.

1. Introduction

The Cambodian economy has achieved remarkable growth since its transition to a market economy in the early 1990s (World Bank, 2018). It is one of the most progressive and open economies in the Association of Southeast Asian Nations (ASEAN). The growth of Cambodian the economy has been largely attributed to liberal trade and foreign direct investment (FDI) attraction policies. FDI inflows in Cambodia, mainly in the labour-intensive garment sector, have been mainly due to low wages, abundant labour, and preferential access to the European Union (EU) and United States (US) markets. Garment and textile exports in 2017 amounted to US$8 billion, increasing from only US$3 billion in 2010. In 2017, garment exports comprised around 70% of the country's total exports. Employment also rose from roughly 320,000 workers in 2010 to 620,000 workers in 2017, almost doubling in seven years. The characteristics of garment workers are mostly driven by young women migrating from rural areas. The other critical dimension of the Cambodian labour market is that the average educational attainment is below the primary school level, requiring a huge policy effort to train and re-tool workers for higher quality and future value-added jobs in the economy.

Despite its high growth, the garment sector is vulnerable to external shocks. Its export destinations heavily depend on only two major markets, namely the US and EU, covering more than 70% of total garment exports. During the global financial crisis of 2008–2009, Cambodia's garment sector exports declined significantly, leaving more than 50,000 people unemployed. These unemployed workers were driven to the informal sector and to the rural agricultural sector.

Export and investment promotion is critical for small open economies, such as Cambodia, to fully benefit from economic and trade liberalisation. Integration with regional and global value chains is a critical component of attracting FDI into the domestic economy. In this regard, investment promotion and facilitation policies are critical for attracting key FDI into the domestic economy, and special economic zones (SEZs) are critical for attracting key investments into the economy. The objectives of this study are to examine the investment policy and foreign direct investment trends in the Cambodian economy in terms of investment promotion and facilitation and their impacts on the domestic economy. The study will examine the investment policy of the Cambodian economy since the global financial crisis. The study intends to examine the impact of investment promotion and facilitation policies in terms of SEZs.

There are several studies on the impact of SEZs on domestic economic activities in developing countries (Brussevich, 2020; Wang, 2013; Warr and Menon, 2016). Wang (2013) assessed the impact of SEZs in China, highlighting the positive spillovers of SEZs on local regional economic activities and global export networks, thereby affecting export activities and linkages, productivity improvements, and wage growth. Alkon (2018) found little impact of SEZs in India in terms of their impact on employment and the development of social infrastructure, such as roads and schools.

Several studies have highlighted the key challenges facing SEZs in Cambodia in terms of upgrading and improving them for the next phase of growth in regional and global value chains (Brussevich, 2020; Warr and Menon, 2016). Warr and Menon (2016) highlighted the importance of attracting FDI activities into Cambodia in the initial stages of development, generating employment and creating the export market necessary for global value chain (GVC) activities. However, the study also highlights that most of the FDI activities are in labour-intensive activities, especially in the clothing and garment industries, which create very little value-added activities, and also in footloose (low value-added activities) FDI activities. These FDI industries create fewer backward linkages to domestic industries, investment in R&D, and development and investment in human capital; have little impact on increasing local wages; and also cause less investment in critical infrastructure for the network economies linked to GVC networks (World Bank and Asian Development Bank, 2014). Further, domestic capacity, such as in infrastructure and human capital, is crucial for creating domestic linkages and also for domestic firms to participate in regional and global value chains through multinational activities. Small and medium-sized enterprises (SMEs) lack the skills and technological capacity to create effective backward linkages to the multinational firms in the SEZs. Further, key domestic infrastructure, such as the steady supply of electricity and water, tends to play an important role in providing the necessary support for multinational activities in the economic zones. Transparent investment and business regulations are also critical for promoting and attracting high-value-added multinational activities in the domestic economy (World Bank and Asian Development Bank, 2014).

Brussevich (2020) conducted a recent study on FDI activities in Cambodia. The study highlights the impact of FDI activities in Cambodia on employment and wages using household survey data mapped to the district level. The study found SEZs to have a positive impact on employment, especially in terms of female workers, with reduced inequality at the district level. However, the study found little employment impact at the aggregate national level. Whilst the study did not observe any positive impact of SEZs, specifically on changes in wage level, capital investments, and R&D activities, it found a positive impact on land values associated with the location of SEZs.

The current study will examine the key factors affecting the location of foreign firms in Cambodia at the provincial level, accounting for key provincial-level characteristics such as infrastructure (roads), population density (young population), the number of establishments, rainfall, electricity supply, water supply, sharing of an international border, sharing of a coastal area, SEZs, and provincial-level consumption per capital. The study collects administrative data from the Council for Development of Cambodia (CDC), which manages FDI as well as the SEZs in Cambodia. The study consists of nearly 500 foreign firms that were approved to invest in Cambodia from 2017 to 2020.

The paper will also derive policy implications to move domestic industries to higher-value-added activities in the regional and global value chains. Whilst our study is close to the study by Brussevich (2020), it differs in several key areas. We use the administrative data on foreign direct investment from the CDC to carefully study the locational characteristics of multinational firms. As opposed to the impact of SEZs on local districts and the impact on employment and wages, we carefully study the key factors in attracting FDI activities at the provincial level using provincial characteristics.[2]

The paper is organised as follows. The next section will discuss the structural transformation of the Cambodian economy. In section 3, we discuss the structure of employment in Cambodia. The institutional structure of investment management in Cambodia is discussed in Section 4. Cambodia's investment facilitation policy is given in Section 5. The challenges of FDI activities are examined in Section 6. In Section 7, we provide the empirical framework and discuss the key results. Policy discussions are provided in Section 8.

[2] In most cases, FDI activities are driven by national- and provincial-level policies. The district-level effects have little impact on FDI activities. It is also difficult to map the FDI data to the district level.

2. Structural Transformation of the Cambodian Economy

The Cambodian economy has achieved remarkable growth since its transition to a market economy in the early 1990s. The average annual gross domestic product (GDP) growth rate of Cambodia was 7.8% during 2000–2016 (see Figure 1), making it one of the fastest-growing economies in the region. Sector-wise, the manufacturing industry has shown the highest growth, at an average of 11.9%, followed by services at 8.1% and agriculture at 3.8% during the same period (World Bank, 2018)

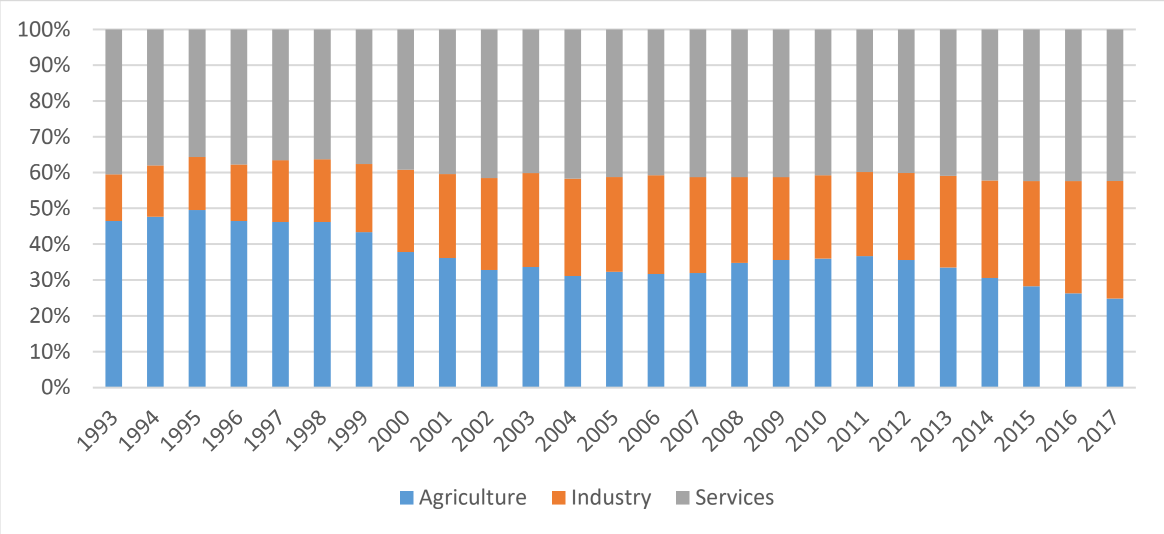
Figure 1: GDP and Sectoral Growth Rates in Cambodia (%)

GDP = gross domestic product.
Source: World Bank, World Development Indicators online database (accessed 9 August 2018).

Figure 2 shows the structural transformation of the Cambodian economy from 1993 to 2017. It is clear that the share of agriculture to GDP declined in line with a rise in the share of the manufacturing sector to GDP, reflecting the industrialisation process as the economy moved from being agriculture-based to more industry-oriented. The decline in agriculture has been primarily attributed to three factors. First, the low agricultural productivity and slow pace of diversification and commercialisation of agricultural products have negatively impacted the development of the agriculture sector. Insufficient and ineffective irrigation systems and high prices for fertilisers and other intermediate inputs have increased production costs, leading to a lack of competitiveness in the sector. Second, volatile world commodity prices in recent years have also negatively affected the price of agricultural products from Cambodia, especially rubber, pepper, and rice. Thirdly, labour migration from rural to urban areas and overseas has resulted in a labour shortage in agriculture. However, the government policy of mechanisation has been introduced to improve the productivity and competitiveness of the agriculture sector.

The development of the manufacturing sector has proven successful through liberal FDI attraction and trade policies. Taking advantage of the relatively cheap and abundant labour force, as well as preferential market access to the US and EU markets, FDI in garment production has been steadily increasing in the Cambodian economy since the opening of the economy in the mid-1990s. The sector has grown rapidly and today is becoming the biggest exporting industry in the country, making up approximately 70% of the country's total exports. In addition to the garment sector, the assembly and manufacturing of electronics and automobile parts are becoming more visible in recent years, contributing to the pace of diversification of the manufacturing sector. This is mainly due to the 'Thai Plus One' strategy by FDI firms due to rising wages in Thailand and the policy to move to higher value-added production by the Thai government. Consequently, lower value-added production in parts and components from Thailand is moving to Cambodia, where wages are still relatively cheaper, and the supply of the labour force is more abundant. In addition, we also observe growth in the services sector due to more services sector liberalisation in the tourism, logistics, and aviation sectors.

Figure 2: Structural Change in Output in Cambodia (%)



Source: World Bank, World Development Indicators online database (accessed 9 August 2018).

As a general trend, the decline in agriculture and increase in industry's share of GDP clearly suggest structural transformation from an agriculture-dominant economy to more industrial manufacturing. This phenomenon is accompanied by rural-urban migration to support the shortage of labour demand in the cities. The growth rate of the services sector shows a trend growth rate of around 7% per year over the past 2 decades. Although the services sector's share of GDP has remained at around 40%, the share of employment in this sector has increased gradually over the years.

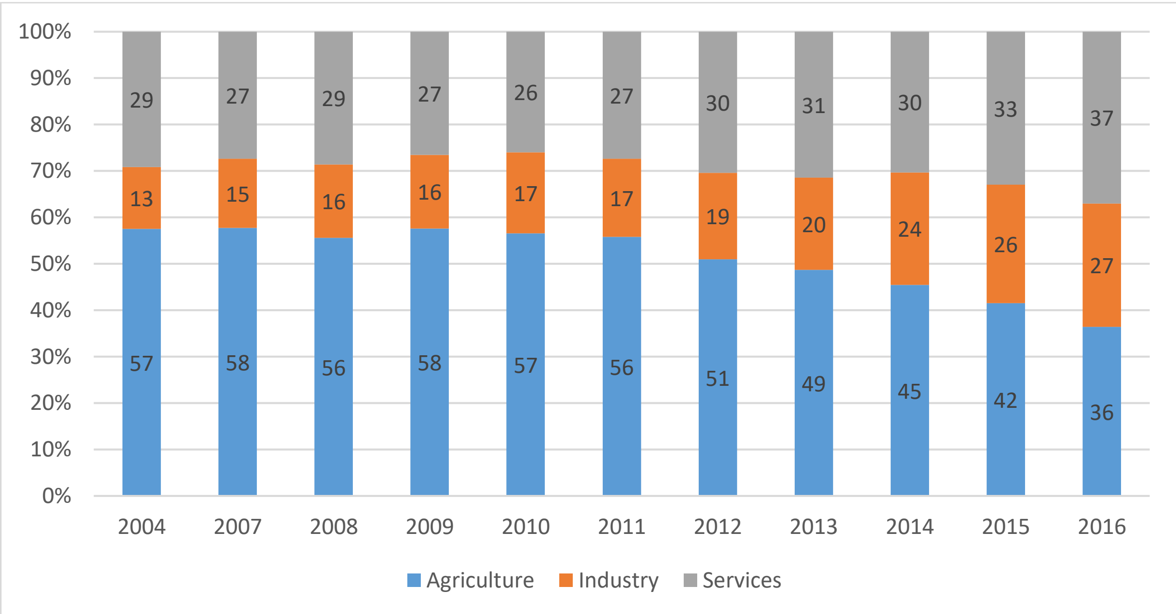
3. Structural Change in Employment

Cambodia was an agriculture-dominant country until the 1990s, with more than 80% of the population employed in this sector. The transition of the economy to a market economy in the early 1990s paved the way for the industrialisation process. The promulgation of the Law on Investment in 1994 was successful in attracting FDI firms to complement the serious shortage of domestic investment. The steady and rapid growth of the garment and footwear industry caused changes in the structure of output and also employment. The demand for labour in the garment sector has caused people to migrate from the lower-paying agricultural sector to the higher-paying manufacturing sector.

Cambodia is a country with a young and dynamic workforce, and it still stands to benefit from the demographic dividend of a young labour force. According to the United Nations (2017), the population of Cambodia in 2017 was around 16 million and is projected to increase to 18.8 million in 2030 and 22 million in 2050. With an annual population growth rate of 1.9% over the past decade, Cambodia on average will add approximately 164,000 people to the labour market each year. The working age population (15–64 years) reached 10.1 million in 2015 for the first time, from 8.3 million in 2007.

As the structural transformation accelerates, the share of employment in agriculture has shown a sharp decline. Figure 3 illustrates the change in sectoral employment in Cambodia from 2004 to 2016 (Cambodia Socio-Economic Surveys, various years). Employment in agriculture declined from 58% in 2007 to only 36% in 2016. Correspondingly, the employment shares of the manufacturing and service sectors steadily increased, absorbing new entrants to the labour market.

Figure 3: Structural Change in Employment in Cambodia



Source: Cambodia Socio-Economic Surveys (various years).

4. Institutional Structure of Investment in Cambodia

Under the Law on Amendment to the Law on Investment in 2003, projects of Cambodian capital or foreign capital, so-called qualified investment projects (QIPs),[3] shall be applied through the CDC.[4] Investments approved under QIPs are projects approved with investment incentives.

Laws and regulations on investment are designed to encourage investments through friendly, non-discriminatory policies without restricted sectors, except for land ownership. Since there are no limitations on nationality, a QIP could be in the form of a joint venture between Cambodian entities, between Cambodian entities and foreign entities, or between foreign entities, except when the joint venture is intended for land ownership that requires a Cambodian's combined shareholding of at least 50% (CDC, 2017b). Current laws and regulations provide a generous incentive scheme for investors who received a final registration certificate under Articles 2 and 6 of the Amended Law on Investment. These incentives include long periods of profit tax exemption as mandated by the Law on Taxation, duty-free imports of production equipment, and export tax exemptions, etc.[5] As a least developed country, Cambodia benefits from the Generalized System of Preferences schemes provided by the EU, Japan, Canada, and the US with exemptions from customs duties and tariff reductions. At the same time, to provide a mechanism for foreign investment protection through international arbitration, Cambodia ratified the Convention on the Settlement of Investment Disputes between the States and Nationals of Other States on 20 December 2004, which became effective on 19 January 2005.

Over the 12 years from 1994 to 2006, the average annual investment amount was US$932 million. In the following 5 years from 2007 to 2011, this amount grew by about 6.2 times, amounting to US$5.8 billion. From 2012 to 2016, local investment accounted for approximately 54% of the total investment in Cambodia. Almost 90% of the total foreign

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[3] Domestically oriented, export-oriented, and supporting-industry QIPs are subject to the investment incentives as stated in Chapter 5 of the Amended Law on Investment, including profit tax exemption, the duty-free import of production equipment or construction materials, and special depreciation.

[4] The CDC, acting as the one-stop service organisation for the rehabilitation, development, and oversight of investment activities, is responsible for the assessment and decision of approving investment projects to be guaranteed and granted investment incentives. Nonetheless, the CDC is not the final decision-maker since it has to elevate projects to the Council of Ministers for approval and examination on whether the capital investment is US$50 million or above, is related to politically sensitive issues, is involved with the exploration and exploitation of mineral and national resources, has possible negative impacts on the environment, or has a long-term development strategy, etc. (CDC, 2017a, 2017b).

[5] For detailed information on the investment incentives in Cambodia, see https://www.jica.go.jp/cambodia/english/office/others/c8h0vm000001oaq8-att/investment_01.pdf.

investment came from Asia, with Chinese investors being the most active amongst other foreign investors (CDC, 2017a). The investments in Cambodia were mainly in industry and infrastructure, which accounted for 72% of the total investments in 2012–2016 (see Tables 1 and 2).

Table 1: Investment Capital by Country

Year	2012	2013	2014	2015	2016
Total Investment Capital	**US$2.9 billion**	**US$4.9 billion**	**US$3.9 billion**	**US$4.6 billion**	**US$3.6 billion**
1	Cambodia, 42.08%	Cambodia, 66.80%	Cambodia, 64%	Cambodia, 69.28%	China, 29.92%
2	China, 20.69%	China, 15.68%	China, 24.44%	China, 18.62%	Cambodia, 27.55%%
3	Rep. of Korea, 9.89%	Viet Nam, 6.10%	Malaysia, 2.18%	United Kingdom, 3.0%	Japan, 22.78%
4	Japan, 9.15%	Thailand, 4.37%	Japan, 1.72%	Singapore, 2.18%	Thailand 4.61%
5	Malaysia, 6.04%	Rep. of Korea, 1.76%	Rep. of Korea, 1.66%	Viet Nam, 1.92%	Rep. of Korea 4.59%

Note: The data only reflect qualified investment projects according to the Law on Investment, excluding investments that are ineligible for investment incentives in sectors such as banking, insurance, and construction.
Source: Council for the Development of Cambodia (CDC) (https://cdc.gov.kh).

Table 2: Areas of Investment (US$ billion)

Areas of Investment	2012	2013	2014	2015	2016	2012–2016
Agriculture	556.60	1,128.80	264.70	482.60	478.30	2,911.00
Industry	1,489.70	1,106.70	2,835.60	919.30	1,186.30	7,537.60
Infrastructure	227.80	2,620.80	353.50	3,129.80	544.30	6,876.20
Tourism	691.50	106.00	479.60	111.90	1,400.80	2,789.80
Total	2,965.60	4,962.30	3,933.40	4,643.60	3,609.70	20,114.60

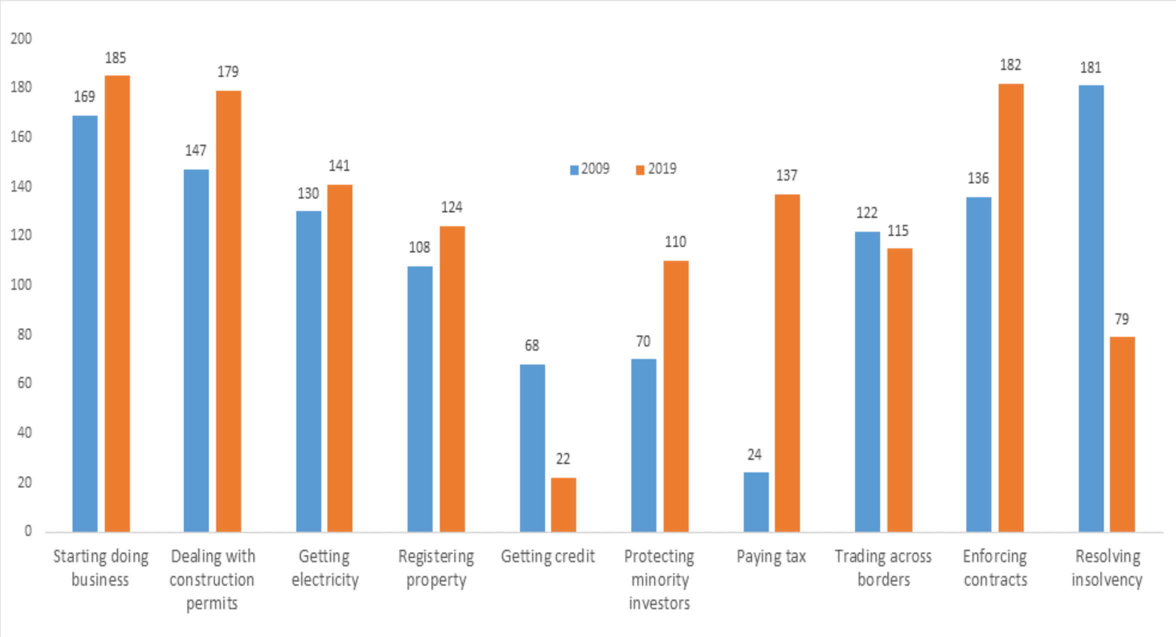
Note: The data only reflect qualified investment projects according to the Law on Investment, excluding investments that are ineligible for investment incentives in sectors such banking, insurance, and construction.
Source: Council for the Development of Cambodia (CDC) (https://cdc.gov.kh).

5. Investment and Facilitation Policy in Cambodia

Cambodia's investment regime is one of the most liberalised in ASEAN. Cambodia allows foreign individuals or companies to own 100% of the shares in a company set up in the country (Council for the Development of Cambodia, 2017b). Moreover, unlike other nations in the region, Cambodia does not impose any capital control measures, and the foreign exchange law allows foreigners to transfer their profits out of Cambodia without any restrictions. In addition, foreign companies can invest in any economic sector with equal treatment as domestic investors.

Although Cambodia's investment openness is relatively high compared to some of the other ASEAN members, many underlying factors make Cambodia a less attractive destination for investment. The high cost of electricity and logistics, the shortage of skilled labour, the complications and longer time required to register and run a business, and the complicated tax system are major constraints to investment. Compared with the other ASEAN Member States, Cambodia is the slowest reformer. For instance, Cambodia was ranked 144 out of 190 countries in the 2019 Ease of Doing Business ranking, which was far behind many countries in the ASEAN region, such as Thailand (21), Viet Nam (70), Indonesia (73), and the Philippines (95). In 2009, Cambodia was ranked 135 out of 181 countries. It is important to highlight that the ranking of more countries in 2019 might have pushed Cambodia to a lower overall rank and also in some sub-categories given in Figure 4. However, a large decline in the ranking for some categories shows that Cambodia has to improve its trade and business facilitation activities in the domestic economy.

Figure 4: Cambodia's Doing Business Rank by Criteria, 2009 and 2019



Source: World Bank (2019).

Figure 4 demonstrates the 10 criteria set by the World Bank to measure the ease of doing business. We can see that Cambodia did not perform well overall from 2009 to 2019. Overall, in 7 of the 10 criteria, Cambodia ranked in a lower position, indicating that significant gaps exist in improving the effectiveness of doing business in Cambodia (a higher number indicates a lower ranking). 'Paying tax' saw a huge decline in rank from 2009 to 2019, with a ranking gap of 113, followed by 'enforcing contracts' (46), 'protecting minority investors' (40), 'dealing with construction permits' (32), 'registering property' (16), 'starting doing business' (15), and 'getting electricity' (11). We observed improvements for 3 out of the 10 indicators. 'Resolving insolvency' saw a significant improvement from 181 to 79 (an improvement in rank by 102 places), followed by 'getting credit' (46) and 'trading across borders' (7).

In terms of tax and investment incentives, Cambodia is also not attractive enough, coupled with the difficulties it faces in implementing and operationalising such schemes. Cambodia's corporate income tax rate (20%) is competitive and is similar to those of Thailand, Viet Nam, and Brunei Darussalam, however it is not efficient in implementing the tax scheme. The highest rate is in the Philippines (30%), followed by Indonesia (25%), Myanmar (25%), Malaysia (24%), and Lao PDR (24%). For the value-added tax rate, the tax holiday length, and import and export duty exemptions, Cambodia is not at the top of the ranking. However, Cambodia, with Indonesia and Myanmar, applies a prepayment tax (1% of monthly turnover). In addition, Cambodia has also joined Indonesia and the Philippines in introducing a minimum tax and joins Indonesia, Lao PDR, the Philippines, and Thailand in implementing a withholding tax on distributed dividends.

6. Challenges of FDI Activities in Cambodia and the SEZs

As described above, Cambodia is facing many challenges internally in relation to investment and business policy implementation, company registration, the tax system, and incentive schemes. Other matters, such as the increase in the minimum wage, the low productivity compared to competitors, the high cost of logistics and electricity, the lack of skilled labour, and unproductive SMEs, are distorting factors and scaring investors away. At the same time, the severe competition in the region, coupled with Cambodia's slow reforms, may make it difficult for Cambodia to maintain a high flow of FDI into the country in the future. As a result, the government's objectives of becoming an upper-middle-income country by 2030 and a high-income economy by 2050 may not be possible.

If we look deep into Cambodia's investment structure, we may see some hope for pursuing Cambodia's aspirations by 2030 and 2050 by developing the traditional SEZs into science parks in manufacturing and services and investment incubators.

History has shown that SEZs have been a successful tool for attracting FDI, testing policy, and supporting the realisation of socioeconomic development goals. SEZs have been used to accomplish the following: (i) unlocking agglomeration economies by concentrating on economic infrastructure and public goods in one geographical area, (ii) piloting the application of experimental new policies and approaches, (iii) supporting a broader economic reform strategy, and (iv) serving as 'pressure valves' to alleviate large-scale unemployment. In particular, the experiences of ASEAN Member States also clearly indicate the contributions of economic zones in supporting socioeconomic development, including as FDI tools and as catalysts for the development of industrial clusters (ASEAN, 2017).

Economic zones have been actively developed across ASEAN. Amongst ASEAN countries, Malaysia has the largest number of zone developments[6] (545), followed by Viet

[6] The key investments in Export Processing Zone, Economic Zone, Free Commercial Zone, Free Industrial Zone, Industrial Estate or Park, Special Economic Zone, Information Technology Centre, Licensed Manufacturing Warehouse or Bonded Warehouse, Regional Economic Corridor, Technology Park.

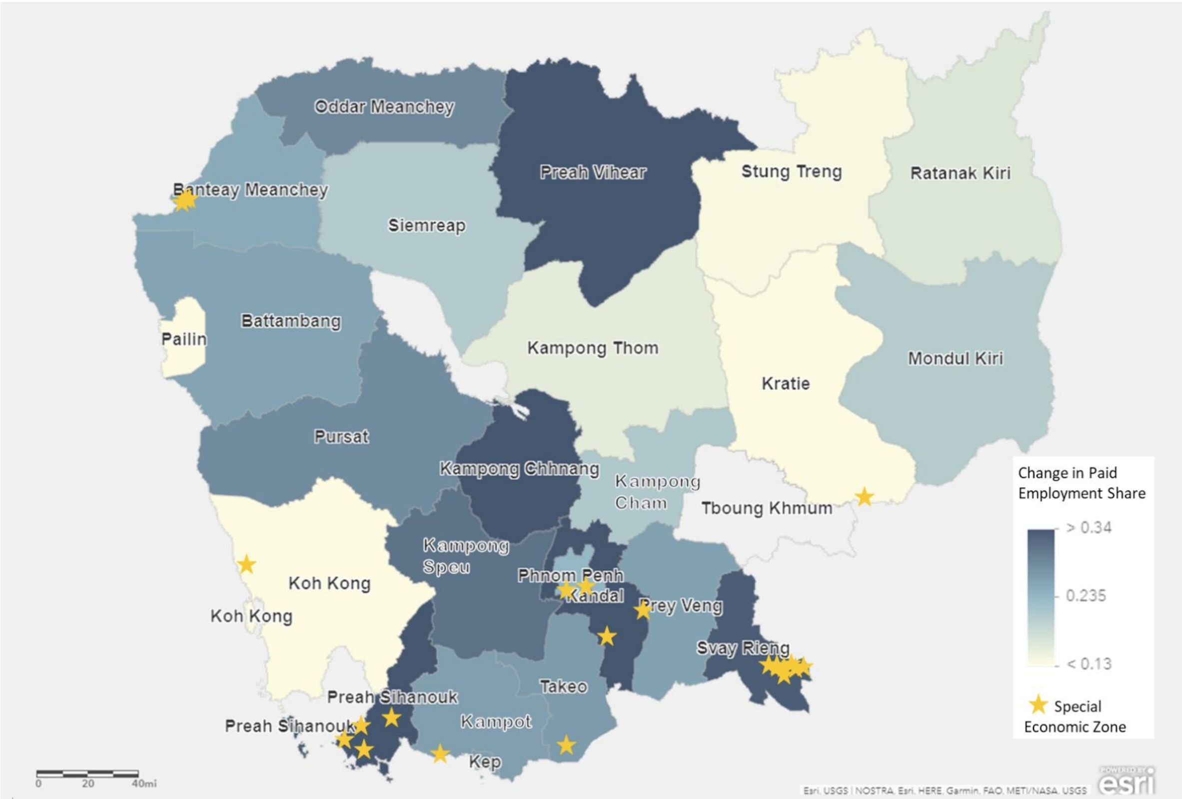
Nam (375), the Philippines (365), Indonesia (103), Singapore (85), Thailand (78), Brunei Darussalam (25), Cambodia (25), Myanmar (23), and Lao PDR (12) (ASEAN, 2017).

There are two types of zone development in Cambodia: SEZs and industrial zones (IZs). IZs are under the authority of the Ministry of Industry and Handicraft. There is no minimum land size required to set up an IZ. Currently, most IZs have a land size ranging from 5 hectares to 20 hectares.

Meanwhile, there are 25 SEZs in Cambodia, with licences to operate in 9 provinces; 12 of which are in the border areas next to Thailand and Viet Nam, and 8 are in the coastal provinces. We observe that 5 out of the 25 are inactive as they did not meet the regulatory requirements of the government (see Figure 5).

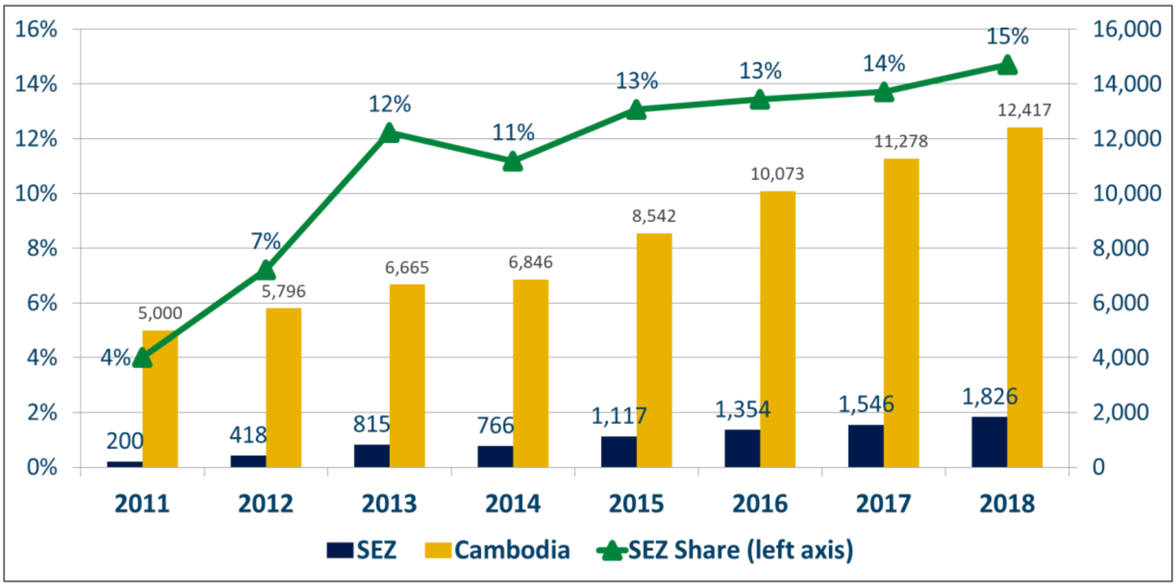
In Cambodia, the development of SEZs, initiated in 2005, was mainly driven by the private sector with support from government policies. Since then, SEZs have become increasingly important in producing goods for export. Figure 6 shows that exports from SEZs increased gradually. The total share of exports from SEZs was 4% in 2011 and reached 15% in 2018.

Figure 5: SEZs in Cambodia



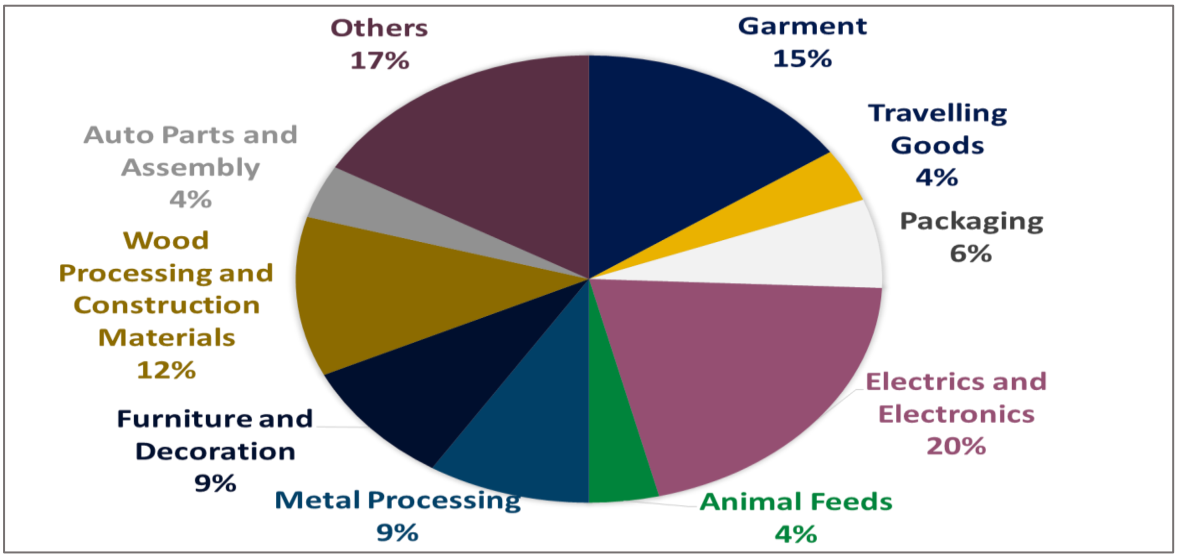
Source: Brussevich, 2020.

Figure 6: Exports from SEZs (US$ million)



Source: Council for the Development of Cambodia (CDC) (https://cdc.gov.kh).

Figure 7: Investment by Sectors in SEZs



Source: Council for the Development of Cambodia (2017a).

SEZs in Cambodia have also played a significant role in attracting FDI (see Figure 7). Total investment in SEZs amounted to US$3.72 billion by 2018 (around a 15% share of FDI). There are 393 active companies/factories, roughly employing 130,000 people. SEZs have also provided bases for investment in electrics and electronics, and auto parts and assembly, which comprise 20% and 4% of total FDI investment, respectively. Investment in these two sectors exists only in SEZs, and this suggests that the creation of SEZs has helped Cambodia to connect and participate in the GVC and regional production networks.

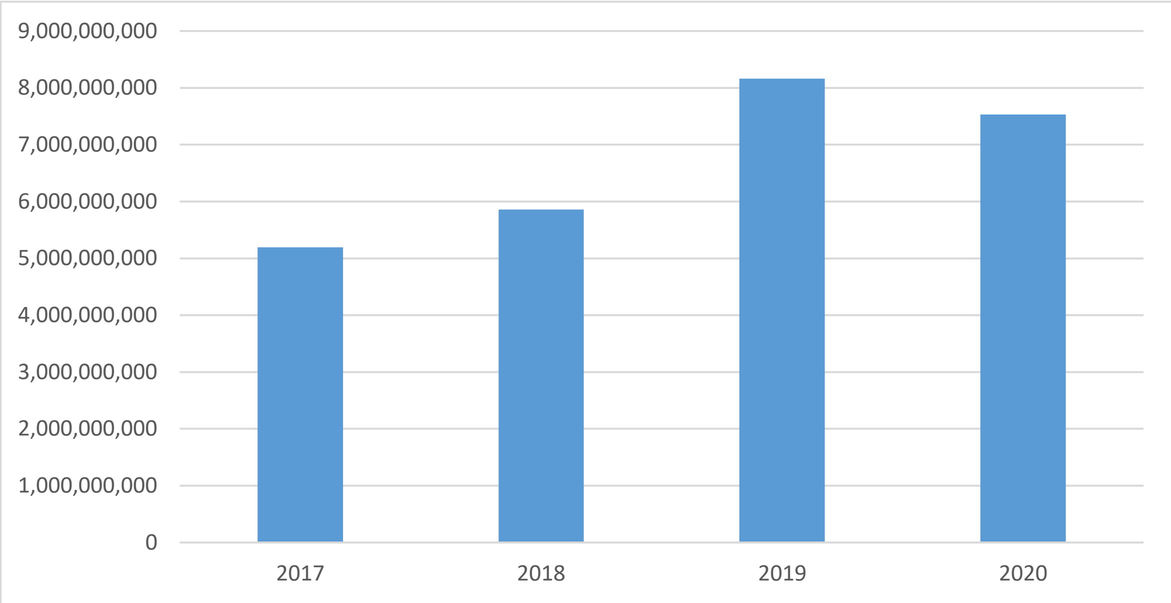
SEZs in Cambodia have already been established for 14 years; however, the levels of development and transformation have not been comparable with regional SEZs in Thailand and Viet Nam. SEZs in Cambodia are seen as export processing zones, where companies come to set up, process and assemble their products, and then re-export. Given this situation, Cambodia needs to transform the traditional SEZs into more productive and high-value-added ones by becoming science parks in manufacturing and services and places for investment incubators, which would create positive spillover effects. The transformation would play a supportive role in achieving the digital economy planned by the Royal Government of Cambodia.

7. Empirical Framework

The data for this study were obtained from the CDC and cover all approved foreign investment in Cambodia from 2017 to 2020. The data consist of local and foreign companies, including those with different ownership structures, asset investments, levels of employment, approved and start-up dates, and locations. The investment level data are matched to provincial-level characteristics by mapping the company address to the location of the respective province.

Figure 8 provides the key total approved foreign investment in Cambodia from 2017 to 2020 based on the approved investments from the CDC. It is interesting to observe that Cambodia is doing quite well in attracting foreign investment into the country, with a rising trend to 2019 and then declining in 2020. In 2019, Cambodia attracted nearly US$8 billion in foreign investment. Cambodia was still able to attract foreign investment in 2020 despite the impacts of the COVID-19 pandemic. In 2020, Cambodia attracted nearly US$7.5 billion in foreign investment.

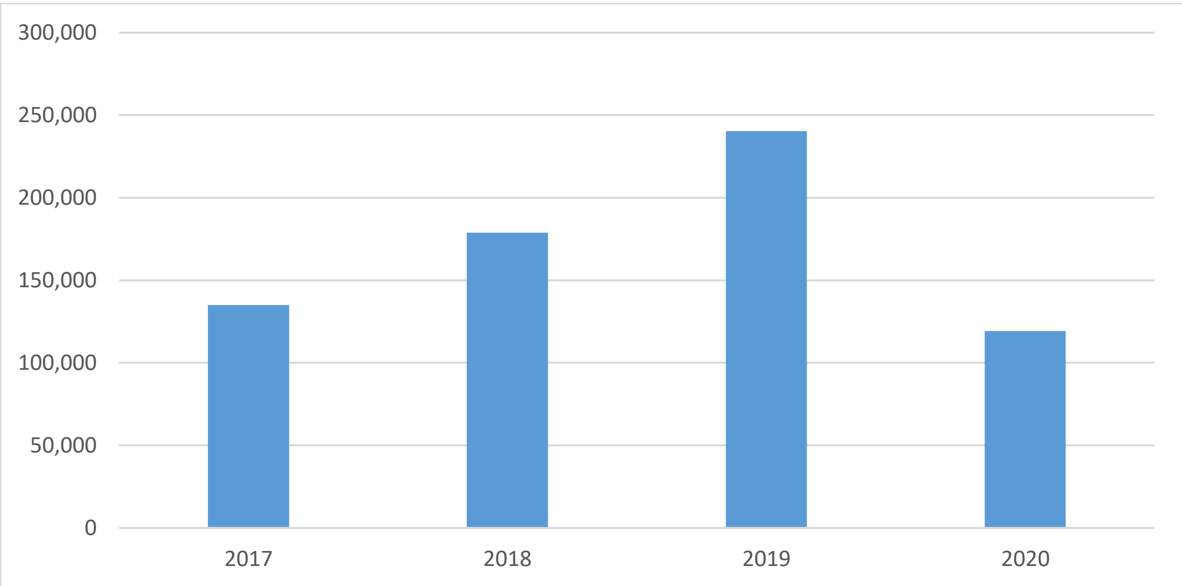
Figure 8: Approved Foreign Investment in Cambodia, 2017–2020 (US$)



Source: Council for the Development of Cambodia (CDC) (https://cdc.gov.kh).

The employment created by the foreign investment is shown in Figure 9. Employment from foreign investment was also on an increasing trend until 2019, rising to nearly 240,000. In 2020, the year the COVID-19 pandemic started, foreign investment created nearly 120,000 employment opportunities.

Figure 9: Employment from Approved Foreign Investment in Cambodia, 2017–2020 (number of workers)



Source: Council for the Development of Cambodia (CDC) (https://cdc.gov.kh).

The key descriptive statistics of the investment data matched to the provincial level are given in Table 3. It is interesting to observe that most of the FDI is located in Phnom Penh, Kampong Speu, Kandal (adjacent and border province to Phnom Penh), and Takeo. In fact, most of the foreign companies are investing in Phnom Penh province, with nearly 47% of the share of total foreign approved investment from 2017 to 2000. Foreign investment is also flowing into service sectors, such as hotels and restaurants and airport construction and services at Siem Reap and Preah Sihanouk. It is also flowing into labour-intensive industries, such as garments and textiles, accounting for a large share of foreign investment from 2017 to 2020. However, we also observe diversification of investment into the chemicals, electrical parts and components, motorcycle assembly, solar panel, chemicals, and pharmaceutical industries. It is also interesting to observe that foreign companies are mostly investing in provinces that do not share international borders with Viet Nam, Thailand, and Lao PDR, which are likely to have high transaction costs of government regulations, heavy rent-seeking at the border, and a lack of manpower in the border provinces as most Cambodian workers migrate to the neighbouring countries of Viet Nam and Thailand to work due to the higher wages (see Table 3). We also observe joint venture activities with local and foreign investors, with a share of 29% of the total number of investments approved from 2017 to 2020.

Table 3: Foreign Business Investment in Cambodia, 2017–2020

Province	Number of Foreign Firms	Share an International Border	Fixed Assets (US$ million)	Labour (number of workers)	Industries
Banteay Meanchey	1	Yes	10	2,017	Garments, textiles
Battambang	2	Yes	28	654	Paper products
Kampong Cham	11	Yes	129	20,147	Garments, textiles
Kampong Chhnang	4	No	60	15,630	Garments, textiles, agriculture
Kampong Speu	118	No	699	111,514	Light manufacturing, garments, textiles, agri-products
Kampot	3	Yes	24	1,637	Garments, textiles
Kandal	83	Yes	470	99,968	Garments, textiles, light manufacturing,

Province	Number of Foreign Firms	Share an International Border	Fixed Assets (US$ million)	Labour (number of workers)	Industries
					motorcycles, solar panels, chemicals
Koh Kong	1	No	22	850	Hotels, restaurants
Oddar Meanchey	2	Yes	345	1,131	Minerals, agriculture (rubber)
Phnom Penh	247	No	12,601	261,356	Garments, textiles, light manufacturing, motorcycle assembly, solar panels, chemical, car assembly, hotels, restaurants
Preah Sihanouk	19	No	1,799	24,817	Hotels, restaurants
Preah Vihear	1	Yes	55	2,530	Agri-industry
Pursat	4	Yes	20	1,780	Light manufacturing (electrical)
Ratanak Kiri	1	Yes	43	1,140	Agriculture (rubber)
Siem Reap	4	No	1,066	1,607	Hotel, restaurants, construction (airport)
Svay Rieng	4	Yes	34	5,042	Light manufacturing
Takeo	28	Yes	168	43,011	Garments, textiles, light manufacturing, motorcycle assembly
Tbong Khmum	4	Yes	4	1,222	Agriculture, garments
Total	538		17,587	596, 053	

Council for the Development of Cambodia (CDC) (https://cdc.gov.kh).

We examine the determinants of FDI in Cambodia at the provincial level by mapping the approved investment with the provincial-level data consisting of the poverty rate, human development index, total population and density, national road (level 1), national road (level 2), provincial road, number of establishments, rainfall, electricity supply, water supply, sharing an international border, number of seaports, number of dry ports, sharing a coastal area, number of schools, and provincial level consumption per capita. The provincial-level data were obtained from the Cambodia Socio-Economic Survey (CSES), National Institute of Statistics, Kingdom of Cambodia. National road (level 1), national road (level 2), and provincial road follow the definitions given by UNESCAP in the Ministry of Public Works and Transport, Kingdom of Cambodia.[7] The road lengths are given in kilometres. The total of national road (level 1) and national road (level 2) is taken as the total national road variable in our study. We used the weighted average of the road lengths of national and provincial roads to total national and provincial roads to form the infrastructure index at the provincial level. Rainfall is measured in cubic millimetres per year at the provincial level. The variable of local ownership structure captures local ownership collaborations of joint ventures with a local ownership of 50% in foreign investment in Cambodia. We adopted a cross-sectional framework to examine the locational determinants of FDI in Cambodia consisting of 538 foreign companies from 2017 to 2020. The summary statistics are given in the Appendix. The empirical study also controls for industry, year, and provincial-level dummies.

The dependent variable in our study is FDI at the provincial level (18 provinces) from 2017 to 2020. All the variables are expressed in natural logs.

The results of the ordinary least squares (OLS) estimation are given in Table 4. We observe a positive impact of the infrastructure variables on foreign firm investment at the provincial level. The positive impact of road infrastructure (national and provincial roads) has a significant impact on foreign investment activities as it improves the movement of people and goods, reduces transaction costs, and increases market access. It also increases the service linkages within the domestic economy. To examine the impact of road infrastructure on the movement of people, we include interactive terms between the road infrastructure index and labour employment (column 3 in Table 4). The coefficient is positive and statistically significant, indicating direct as well as indirect effects of road infrastructure on foreign investment and production activities in the domestic economy.

The results indicate a positive impact of connectivity and highway infrastructure investment, such as national roads and provincial roads, on foreign investment in the provinces of Cambodia. The positive and statistically significant impact of 'national highway' indicates the importance of connectivity and that the movement of resources is critical for foreign investment in Cambodia. We also find a positive impact of provincial-level roads on the investment decisions for foreign investment in the provinces.

[7] See the definition of national road (1), national road (2), and provincial road at Ministry of Public Works and Transport, Kingdom of Cambodia (https://www.unescap.org/sites/default/files/Cambodia_0.pdf).

The key strategy adopted by the Cambodian government is to develop SEZs across the Cambodian economy. We examined the effectiveness of SEZs on the location of foreign firms at the provincial level. We observe a negative impact of SEZs on foreign investment in Cambodia. The impact of SEZs on foreign investment is captured through two variables: (a) a dummy for being located in an SEZ (locate SEZ) and (b) the number of SEZs in the province (number of SEZs). The coefficients of these variables are negative and statistically significant for the number of SEZs at the provincial level, thereby indicating a negative impact of SEZs on the investment decisions for foreign investment in Cambodia. It is interesting that SEZs do not incentivise foreign firms to locate themselves in the respective SEZs in the provinces. The negative impact of SEZs is an important concern as it reflects the inefficiency of the SEZs in supporting the investment policies in the domestic economy. It is likely that the SEZs might not be investing in key logistics and infrastructure, and thus not providing efficient key service linkages to the global production value chain. It is also likely that the SEZs might not be effectively providing key trade facilitation support, such as customs clearance or one-stop centres, or providing skills or labour support for foreign firms within the SEZs. This requires further policy evaluation and monitoring of FDI activities in Cambodia.

At the provincial level, we observe electricity supply, rainfall (water supply), land area, and a young working population having positive impacts on the investment decisions of foreign investors in the provinces in Cambodia. These key resources in the provinces are important to attract and retain FDI in the domestic economy. A young working population has a positive and statistically significant impact on foreign investment in the provinces.

Table 4: Results of the Key Determinants of Foreign Investment (Foreign Capital Investment as the Dependent Variable) in Cambodia, 2017–2000

	(1)	(2)	(3)
Infrastructure Index (National and Provincial Roads)	1.034*	1.033*	0.726*
	(1.750)	(1.800)	(1.700)
Infrastructure Index*Labour	-	-	0.431*
			(4.004)
Share Coast	–2.573**	–2.570**	–2.601**
	(–4.780)	(–4.785)	(–4.810)
Provincial Consumption per Capita	–1.931	–1.930	–1.944
	(–1.160)	(–1.150)	(–1.149)
Locate SEZ	–0.117	–0.118	0.114
	(–0.460)	(–0.450)	(0.450)
Number of SEZs	–0.627**	–0.630**	–0.630**
	(–4.250)	(–4.250)	(–4.250)
Share International Border	–0.366**	–0.360**	–0.355**
	(–2.400)	(–2.500)	(–2.370)
Rainfall	6.394**	6.395**	6.442**
	(5.900)	(5.850)	(5.930)
Population 18–45 years	1.743**	1.745**	1.764**
	(2.140)	(2.145)	(2.171)
Land Area	1.529**	1.531**	1.499**
	(2.570)	(2.580)	(2.510)
Electricity Supply	–0.004	-	-
	(–0.870)		
Electricity Supply per Establishment	-	5.390**	5.460**
		(4.340)	(4.280)
Labour	0.282**	0.290**	-
	(4.080)	(4.065))	
Population Density Ratio	3.450**	3.460*	3.430**
	(4.656)	(4.600)	(4.605)
Constant	–12.166	–12.190	–9.748
	(–0.550)	(–0.540)	(–0.450)
Industry Dummy	Yes	Yes	Yes
Year Dummy	Yes	Yes	Yes
Provincial Dummy	Yes	Yes	Yes
R-squared	0.190	0.195	0.189
Observations	538	538	538

Notes: * = 10% level of statistical significance, ** = 5% level of statistical significance, *** = 1% level of statistical significance; t-statistics are in parentheses. All variables are in the natural logs.
Source: Author's calculation.

We also observe that sharing a coast or an international border with Lao PDR, Thailand, or Viet Nam has a negative impact on foreign investment in the provinces, reflecting the high transaction costs for operating at the border, such as rent-seeking activities, which increase trade costs. In fact, the summary in Table 3 shows that most of the foreign firms tend to be located in Phnom Penh, Kanda, and Kampong Speu, which are key industrial agglomeration locations for Cambodia with better service linkages, skills and labour supply, high network effects from multinational activities, access to government services, and efficient infrastructure, such as access to an airport.

8. Policy Discussion and Conclusion

This paper examined the foreign investment activities in Cambodia in terms of investment promotion and facilitation. Cambodia is active and progressive in attracting FDI in the domestic economy. Foreign investment is progressively increasing in the Cambodian economy. We also examined the key determinants of foreign investment in Cambodia by matching the foreign investment at the company level with provincial-level data.

The results indicate an urgent need for structural transformation of the Cambodian economy in terms of investment in soft and hard infrastructure and the development of critical skills and human capital of the labour force. The initial impact of attracting FDI created employment effects and the network for export activities. However, most of the activities were in labour-intensive and ‘footloose’ (low value-added) industries, such as the clothing and garment industries. The structural transformation of these key fundamentals will have important impacts on improving the quality of activities of SEZs and incentivising higher-value-added activities amongst domestic firms.

The key results of our study indicate the negative impact of SEZs on foreign investment in the provinces of Cambodia. Most of the approved foreign investment from 2017 to 2020 was located outside of the SEZs. This raises the important role of SEZs in attracting foreign investment in the country. Thus, it is important to improve and upgrade the SEZs in key technologies and innovation to be more competitive in attracting foreign investment activities in the SEZs. Government policies to promote and support such activities are critical for Cambodia to shift to higher-value-added activities. Shifting the SEZs to science and technology-based activities will thus be critical to increase the competitiveness of Cambodia’s industries in global value chain activities.

We also observe the impact of highway and road infrastructure on the investment decisions of foreign investment in the provinces in Cambodia. This is important and critical for more linkages and connectivity between provinces. The empirical results highlight the importance of a young working population. It is important to develop the key skills and education of the young working population as these will have a critical impact on absorbing and diffusing key knowledge and technologies from foreign investment. This will have a significant impact on the development and growth of the provinces and the development of key competitive industries in the country. Investment facilitation and promotion must emphasise the importance of multinationals for investment in local workers in terms of the training and re-tooling of workers as part of their overall investment plans in the domestic economy (Thangavelu and Narjoko, 2014; Thangavelu, Oum, and Neak, 2017).

It is critical to improve the domestic capacity of the Cambodian economy to transition to higher-value-added activities in the regional and global value chains. It is important for the government to invest in critical hard and soft infrastructure to link the SEZs to the regional and global production networks. The key objective of investment in hard and soft infrastructure is to create industrial agglomeration and also to increase the participation of domestic firms in regional and global value chain activities (Thangavelu, Wang, and Oum, 2018; Thangavelu, Oum, and Neak, 2017).

It is also important to upgrade the quality of economic activities and spillovers of SEZs in Cambodia. The investment in critical soft and hard infrastructure will improve the efficiency of SEZs in terms of attracting higher-value-added multinational activities into the domestic economy. In fact, investment facilitation and promotion policies could be an effective platform to attract different types of FDI activities into the Cambodian economy based on the geographical capacity and respective resources of key provinces. This provides the framework to increase the export diversification of key industries and also shift to higher-value-added activities in GVCs. The higher-value-added activities could be attracted to more developed SEZs in the provinces of Phnom Penh and Kandar, which have the critical infrastructure, urban amenities, and GVC network to promote higher-value-added linkages and activities. The lower-lying regions could be used to attract more labour-intensive industries, creating the initial linkages for domestic firms to develop the critical capacity to link to multinational activities. This includes investment in infrastructure, such as roads and highways, creating city linkages and greater market linkages to domestic and regional markets. Further, investment in electricity and water supply infrastructure and human capital will be important for more sustainable and inclusive growth in the Cambodian economy.

There is also a need to create transparency in domestic tax and business regulations as this will have an important impact on attracting more stable and higher-value-added foreign investment into the domestic economy. It is clear from recent studies that tax holidays as investment incentives have a limited impact on attracting higher-value-added activities and tend to attract more labour-intensive and ‘footloose’ (low-value added) FDI activities, which will likely exit after the expiry of the tax holidays (Brussevich, 2020; Ghazanchyan et al., 2018).

The results of the study clearly highlight key opportunities for Cambodia to induce structural transformation and shift its domestic activities to higher-value-added activities in regional and global value chains. The recently completed Regional Comprehensive Economic Partnership highlights the single rules of origin framework for 15 member countries, and the China, Japan, and Republic of Korea free trade arrangements in the partnership are expected to accelerate GVC activities in the region. This will be an important framework to align domestic and regional integration industrial activities for higher-value-added activities in the domestic economy (Urata and Ando, 2009).

References

Alkon, M. (2018), 'Do Special Economic Zones Induce Developmental Spillovers? Evidence from India's States', *World Development*, 107, pp.396–409.

Association of Southeast Asian Nations (ASEAN) (2017), *ASEAN Investment Report 2017*. Jakarta: ASEAN.

Brussevich, M. (2020), 'The Socio-economic Impact of Special Economic Zones: Evidence from Cambodia', *IMF Working Paper* No. WP/20/170. Washington, DC: International Monetary Fund.

Council for the Development of Cambodia (CDC) (2017a), *Investment Trend*. http://www.cambodiainvestment.gov.kh/why-invest-in-cambodia/investment-enviroment/investment-trend.html (accessed 10 November 2017).

Council for the Development of Cambodia (CDC) (2017b), *Outline of Investment Approval Scheme*. http://www.cambodiainvestment.gov.kh/investment-scheme/outline-of-investment-approval-scheme.html (accessed 1 November 2017).

Ghazanchyan, M., A. Klemm, and Y.S. Zhou (2018), 'Tax Incentives in Cambodia.' *IMF Working Paper* No. WP/18/71. Washington, DC: International Monetary Fund.

Thangavelu, S. and D. Narjoko (2014), 'Human Capital, FTAs and Foreign Direct Investment Flows into ASEAN', *Journal of Asian Economics*, 35, pp.65–76.

Thangavelu, S., S. Oum, and S. Neak (2017), 'SME Participation in ASEAN and East Asian Integration: The Case of Cambodia', *Journal of Southeast Asian Economies*, 34(1), pp.175–92.

Thangavelu, S., W. Wang, and S. Oum (2018), 'Servicification in Global Value-Chain: Case of Asian Countries', *The World Economy*, 41(11), pp.3045–70.

United Nations (2017), *World Population Prospects 2017*. New York: United Nations, Department of Economic and Social Affairs, Population Division.

Urata, S. and M. Ando (2009), 'Investment Climate Study on ASEAN Member Countries', in Jenny Corbett and So Umezaki (eds.), *Deepening East Asian Economic Integration ERIA Research Project Report 2008 No.1*. Jakarta: ERIA.

Wang, J. (2013), 'The Economic Impact of Special Economic Zones: Evidence from Chinese Municipalities', *Journal of Development Economics*, 101, pp.133–47.

Warr, P. and J. Menon (2016), 'Cambodia's Special Economic Zones', *Journal of Southeast Asian Economies*, 33(3), pp.273–90.

World Bank (2018), *Cambodia Economic Update: Recent Economic Development and Outlook*. World Bank. https://documents1.worldbank.org/curated/en/888141543247252447/pdf/132482-WP-PUBLIC-nov-28-Economic-Update-Nov-final-01Low-res.pdf

World Bank (2019), *Doing Business 2019*. World Bank. https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf

World Bank and the Asian Development Bank (2014), *The Investment Climate Assessment, 2014. Creating Opportunities for Firms in Cambodia*. Phnom Penh: World Bank.

Appendix

Table A1: Summary Statistics of the Sample of Foreign Firms in Cambodia, 2017–2020

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Ln Foreign Asset Investment	538	15.636	1.203	14.520	21.980
Ln Infrastructure Index (National and Provincial Roads)	538	6.517	0.279	5.642	6.967
Ln Number of SEZs	538	0.381	0.986	0	6
Share Coast	538	0.050	0.218	0	1
Ln Provincial Consumption per Capita	538	12.697	0.253	12.318	12.965
Locate SEZ	538	0.204	0.141	0	1
Share International Border	538	0.267	0.447	0	1
Ln Rainfall	538	7.233	0.184	6.981	8.199
Ln Population 18-45 years	538	13.324	0.457	11.057	13.997
Ln Land Area	538	7.578	1.053	6.519	9.448
Ln Electricity Supply	538	12.310	1.379	7.740	13.251
Ln Establishment	538	10.775	0.725	8.496	11.466
Ln Labour Employment	538	6.547	1.033	2.639	9.160
Ln Population Density Ratio	538	6.295	1.254	2.484	7.563

Note: Ln represents the natural log.
Source: Council for the Development of Cambodia (CDC) (https://cdc.gov.kh).

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