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# Topical issues of the formation of an effective economic and social policy in Cambodia

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## ABSTRACT

Cambodia, currently classified as a lower-middle-income developing country, aspires to reach upper-middle-income status by 2030. To achieve this ambitious goal, the Cambodian government has embraced an open market economic system and prioritized attracting foreign investments as well as encouraging final consumption expenditure (FCE) and stimulating the level of industries, including construction. This study aims to find out the influences of the fluctuations of foreign direct investment (FDI), FCE, and industry (including construction) (IIC) on gross domestic product (GDP) growth in Cambodia and to identify the key factors that can increase FDI, FCE, and IIC growth. The study employs descriptive and correlational analysis, mainly focusing on statistical analyses by constructing an econometric model. The results indicate that Cambodia's GDP is directly and positively impacted by the FDI, FCE, and IIC, according to the analysis of the specification of the econometric model using a linear mathematical equation. The study concludes that the Cambodian government's attention to strategic policies and initiatives in promoting FDI, FCE, and IIC, ultimately leading to a higher overall economic growth rate, is crucial. Factors such as political stability and governance, regulation and legal framework, infrastructure, human capital development, market access, public-private partnership, fiscal policy, and social protection should be at the forefront of the Cambodian GDP development roadmap.

**Keywords:** foreign direct investment; final consumption expenditure; industry (including construction); gross domestic product; strategic policy; market economy; Cambodia; Southeast Asia

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## INTRODUCTION

Situated in Southeast Asia, Cambodia boasts a developing market economy that has witnessed substantial growth in recent decades. This upward trajectory can be largely attributed to the expansion of key industries like textiles, tourism, agriculture, and construction. Cambodia's economic landscape has undergone a significant transformation, shifting away from its historical dependence on agriculture towards a more diversified model, fostering overall development.<sup>1</sup> In 2021, Cambodia's gross domestic product (GDP), measuring the total monetary value of goods and services produced within a year, stood at \$ 26.96 billion.<sup>2</sup> While experiencing rapid growth, per capita

income remains relatively low compared to neighboring countries. Textiles and tourism reign supreme as the two largest sectors, while agriculture continues to serve as the primary source of income for many residing in rural areas [1]. Furthermore, trade-related activities and catering services constitute a significant portion of the service industry. Recent discoveries of offshore oil and natural gas deposits hold the potential to further shape the nation's economic future.<sup>3</sup>

In 1995, Cambodia embarked on a pivotal transformation, transitioning from a planned economy to its current market-driven structure. This shift, implemented when the GDP stood at \$ 2.92 billion, aimed for ambitious growth of 7%. Remarkably, inflation plummeted from 26% in 1994 to just 6% in 1995 [2]. A surge in foreign aid fueled imports, while exports,

<sup>1</sup> Getting Started. U. S. Embassy in Cambodia (official site) 18.02.2024. URL: <https://kh.usembassy.gov/business/getting-started-cambodia/>

<sup>2</sup> GDP (Current US\$) — Cambodia. The World Bank (official site). 10.04.2023. URL: <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=KH>

<sup>3</sup> Gronholt-Pedersen J. Cambodia Aims for Offshore Production Next Year. WSJ. 26.09.2012. URL: <https://www.wsj.com/articles/SB10000872396390443507204578020023711640726>

particularly from the apparel industry, witnessed a parallel rise. Despite consistent economic progress, Cambodia's contribution to the ASEAN economy remained modest in 2016, accounting for only 0.71% compared to its neighbor Indonesia's 37.62% share [3]. However, this burgeoning growth faced a setback in 1997–1998 due to the regional economic crisis, compounded by civil unrest and political instability. These factors, coupled with a decline in foreign investments and a drought impacting the 1998 harvest, caused the economy to decelerate. Nevertheless, 1999, marking the first full year of relative peace in three decades, saw renewed success in economic reforms. This paved the way for a 4% growth trajectory, demonstrating Cambodia's resilience and potential [4].

Cambodia's current foreign policy prioritizes cultivating amicable relations with its immediate neighbors, Thailand and Vietnam, alongside integration into the World Trade Organization's trade blocs. This strategy aims to bolster its burgeoning economy, which faces crucial challenges. One such challenge is the lack of a skilled workforce, particularly in impoverished rural areas with inadequate basic infrastructure. The education system requires strengthening to bridge this gap. Despite these hurdles, Cambodia continues to attract investors due to its competitive advantages: low wages, readily available labor, proximity to Asian raw materials, and favorable tax policies [5]. Foreign direct investment (FDI), final consumption expenditure (FCE), and industry (including construction) (IIC) act as key drivers of the Cambodian economy. Analyzing the impact of these factors on Cambodia's GDP is crucial for policymakers, investors, and stakeholders to formulate informed decisions and strategies that fuel further economic development.

The research objectives of this study are as follows:

- To theoretically review the relationship between FDI, FCE, and IIC with GDP in Cambodia.
- To analyze the impact of FDI, FCE, and IIC on Cambodian GDP with the specification of the econometrics model using a linear mathematical equation.
- To reveal the role of FDI, FCE, and IIC in stimulating Cambodia's GDP.
- To identify key factors and strategies driving FDI, FCE, and IIC growth.

## LITERATURE REVIEW

The movement of multinational corporations (MNCs) from developed to developing countries like Cambodia is a significant aspect of the current era of globalization [6]. MNCs help facilitate a substantial amount of FDI, which involves a foreign investor holding a significant level of control and a long-term interest in a company from another country. MNCs benefit from FDI as a means of expanding their footprints into international markets.<sup>4</sup> Developing countries have encouraged FDI as a means of financing the construction of new infrastructure and the creation of jobs for their local workers [7]. FDI has played a crucial role in Cambodia's economic growth. Studies have shown that FDI attracted to Cambodia's labor-intensive industries, where it has comparative advantages, has contributed to the country's sustained and robust growth performance [8]. FDI can stimulate economic growth through complementing domestic savings, facilitating technology transfer, increasing competition, reducing prices, and boosting entrepreneurship [9]. Investment promotion through the special economic zone (SEZ) mechanism has positively affected FDI inflow and diversification across Cambodia [10]. In terms of labor market outcomes, FDI has been found to increase wages and the probability of working in the formal sector for both the garment sector and other manufacturing sectors in Cambodia, but it has not helped reduce the gender wage gap [11]. Nonetheless, FDI can have varying impacts on GDP growth depending on the type of FDI that flows into Cambodia. Different types of FDI, such as greenfield investments, mergers and acquisitions, or joint ventures, can have distinct effects on the economy [12]. FDI that focuses on export-oriented industries, like garment manufacturing, can significantly contribute to GDP growth by increasing exports and generating foreign currency. In contrast, FDI in resource extraction may have a smaller impact on overall GDP growth, especially if the resources are simply exported without being processed domestically [13]. On the other hand, mergers and acquisitions may result in efficiency gains through restructuring but

<sup>4</sup> Foreign Direct Investment (FDI). OECD iLibrary. 11.04.2023. URL: [https://www.oecd-ilibrary.org/finance-and-investment/foreign-direct-investment-fdi/indicator-group/english\\_9a523b18-en](https://www.oecd-ilibrary.org/finance-and-investment/foreign-direct-investment-fdi/indicator-group/english_9a523b18-en)

could also lead to job losses or reduced competition in certain sectors [14]. Furthermore, factors such as the availability of skilled labor, infrastructure development, institutional quality, and regulatory frameworks play a crucial role in determining how well Cambodia can absorb and leverage foreign investments for economic growth. A higher absorptive capacity enables the country to maximize the positive impact of FDI on productivity, innovation, and overall economic performance [15]. Additionally, the broader economic environment in Cambodia, including macroeconomic stability, trade policies, investment climate, political stability, and legal framework, influences how FDI contributes to GDP growth. A favorable economic environment characterized by low inflation rates, stable exchange rates, transparent regulations, and investor-friendly policies attracts more FDI inflows and creates a conducive atmosphere for sustainable economic expansion [16]. Given that FDI has long been recognized as a major source of capital accumulation that contributes to the economic growth of the host economy, Cambodia has made concerted efforts to eliminate barriers to FDI, enhance domestic economic policies and regulations, promote the expansion of the financial sector, and establish environments conducive to attracting FDI [17].

The health of Cambodian economy, in addition, hinges on FCE, the total amount spent by households, businesses, and the government on goods and services [18]. As one of the three pillars of GDP, alongside gross investment and net exports, FCE plays a critical role in determining a nation's economic performance [19]. As consumers raise their spending, businesses experience an uptick in revenue, resulting in a cascade of positive effects on the economy. Increased business earnings translate to higher tax collections, both directly and indirectly, which in turn contributes to the country's economic growth [20]. As companies witness profit maximization, they can further invest in their infrastructure and expand their operations, leading to more job opportunities with higher salaries [21]. Furthermore, the increased disposable income of workers can stimulate further spending, leading to even more economic activity. This cycle of spending and revenue growth further reinforces the economy's upward trajectory [22]. Fiscal reforms in Cambodia, particularly

those aimed at increasing infrastructure spending through property taxes, can have a significant positive impact on the country's economic growth and inequality reduction [23]. When Cambodia invests more in infrastructure, the government can improve access to basic services such as transportation, healthcare, and education, which can in turn create jobs and stimulate economic activity [24]. Additionally, imposing progressive property taxes helps the government generate revenue that can be used to fund social programs that benefit low-income households, thus reducing inequality [25]. These reforms have the potential to not only improve the lives of Cambodian citizens but also attract foreign investment and boost the country's overall economic competitiveness [26]. Any significant, unjustified changes in FCE can therefore trigger positive or negative ripples through the economy. A steady rise in FCE signals rapid economic expansion and growing consumer confidence. Conversely, a decline in FCE can be an indicator of a market slump brought on by reduced spending on goods and services.<sup>5</sup> Recognizing this intricate relationship is crucial for understanding the health of an economy and implementing policies that promote sustainable growth and development. Nevertheless, the impact of FCE on GDP growth can vary depending on what people and businesses are spending on. Spending on domestically produced goods and services has a more significant impact on GDP compared to spending on imported goods because domestic spending stimulates local production, employment, and reinvestment within the Cambodian economy [27]. Moreover, if income inequality is high, a significant portion of the population may have limited disposable income to spend, dampening the overall impact of FCE on GDP growth [28]. During economic booms, increased consumption can further fuel growth. In contrast, during recessions, even a rise in FCE might not significantly boost GDP if businesses are hesitant to invest due to overall economic uncertainty [29].

Cambodia has experienced solid economic growth since the 1990s, driven by export expansion, FDI inflows, and industrialization. The garment industry has played

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<sup>5</sup> What Is the Relationship between GDP and Consumption? SmartCapitalMind. 28.12.2023. URL: <https://www.smartcapitalmind.com/what-is-the-relationship-between-gdp-and-consumption.htm>

a significant role in the country's manufacturing sector development [8]. The government has emphasized the importance of the labor-intensive manufacturing sector in its industrial policy [30]. The country has recognized the need to improve its human capital to support long-term growth in technologically advanced industries [31]. Furthermore, there is a growing focus on the development of Industry 4.0 technologies in Cambodia, including automation, artificial intelligence, and smart factories [32]. The construction sector has also been a key contributor to the economy, with investments in housing serving as an engine of growth [8]. The housing sector is an important aspect of Cambodia's industrial development, with a need to improve housing conditions and access to quality materials and water. The Better Factories Cambodia program has been instrumental in improving working conditions in the country's exporting factories.<sup>6</sup> The electricity, water, and gas sectors have also seen development, with efforts to improve access to regional markets and promote export product diversification [33]. The mining subsector, along with the manufacturing (mostly garments), electricity, gas, and water, and the construction subsectors, increased by 18.3%, 13.4%, 16.4%, and 15.3% respectively from 2004 to 2007 [34]. In terms of electricity generation, Cambodia relies heavily on hydropower and coal, with coal accounting for 48.1% and hydro accounting for 47.4% of electricity generation in 2015 [35]. The water supply sector in Cambodia faces challenges, with low access to piped water supply, particularly in rural areas [36]. However, the private sector plays a significant role in providing piped water services, with around 300 private sector utilities serving almost 50% of those with access to piped services [37]. The International Standard Industrial Classification (ISIC) divisions 05–43 encompass the industry sector, which also includes construction. This category comprises the value added in industries such as manufacturing, construction, electricity, mining, water, and gas. The net output of a sector is calculated as the sum of all sector outputs, reduced by any intermediate inputs. This estimation does not account for natural

resource depletion or damage to manufactured assets.<sup>7</sup> Cambodia's industrial sector has been instrumental in driving economic growth and attracting investments, contributing to the country's rapid development.

## MODEL CONSTRUCTION AND TESTS

### 1. The quantitative variables characterized the object of the study

Cambodia is a developing nation with an open economic system that employs various quantitative variables including F, C, and I to measure economic activity over a specific period. These variables correspond to the level of FDI, FCE, and IIC, respectively. In this section, the study is going to quantitatively analyze the impact of FDI, FCE, and IIC on GDP, represented by Y in Table 1, of Cambodia because:

- FDI: Understanding the level and impact of FDI in Cambodia's economy is essential as it reflects the confidence of foreign investors in the country's economic prospects.
- FCE: Analyzing FCE provides insights into the domestic demand and consumption patterns within Cambodia.
- IIC: Studying this indicator helps in understanding the contribution of industrial activities to the economy, employment generation, productivity levels, and overall economic diversification.

Table 1

Endogenous and Exogenous Variables  
in the Econometric Model

Endogenous Variable	Exogenous Variable
$Y_t$	$F_t$
-	$C_t$
-	$I_t$

Source: compiled by the authors.

<sup>6</sup> Better Factories Cambodia. International Labour Organization. 14.10.2008. URL: [http://www.ilo.org/asia/projects/WCMS\\_099340/lang-en/index.htm](http://www.ilo.org/asia/projects/WCMS_099340/lang-en/index.htm)

<sup>7</sup> Industry (Including Construction), Value Added (Current US\$) — Cambodia. The World Bank. 10.04.2023. URL: <https://data.worldbank.org/indicator/NV.IND.TOTL.CD?locations=KH>

Table 2

## Cambodia's Official Statistics Collected from World Bank

Year	Billion USD	Billion USD	Billion USD	Billion USD
	GDP	FDI	FCE	IIC
	$Y_t$	$F_t$	$C_t$	$I_t$
2008	10.35	0.82	8.22	2.32
2009	10.4	0.93	7.92	2.25
2010	11.24	1.4	9.14	2.46
2011	12.83	1.54	10.63	2.84
2012	14.05	1.99	11.26	3.23
2013	15.23	2.07	11.97	3.67
2014	16.7	1.85	12.95	4.28
2015	18.05	1.82	13.86	5
2016	20.02	2.48	15.24	5.9
2017	22.18	2.79	16.28	6.84
2018	24.57	3.21	17.37	7.93
2019	27.09	3.66	18.82	9.27
2020	25.87	3.62	17.98	8.94
2021	26.96	3.48	17.57	9.93

Source: The World Bank. 10.04.2023. URL: <https://data.worldbank.org>

Table 3

## Results of Regression Model Analysis Using Cambodia's Official Statistics

	Intercept	F	C	I
Coefficients	1.123303	0.060287	0.751628	1.139359
Standard Error	0.491508	0.255601	0.078958	0.115428
t Stat	2.285421	0.235864	9.519324	9.870707
P-value	0.048134	0.818818	5.38E-06	3.99E-06
F	3683.635363			
Significance F	3.23478E-14			
Multiple R	0.999593042			
R Square	0.99918625			
Adjusted R Square	0.998915			
Standard Error	0.195034065			

Source: compiled by the authors.



## 2. The economic laws and equation of the econometric model

Before being able to estimate the specification of a simplified macro-model that allows explaining the values of  $Y$  by the quantities of  $F$ ,  $C$ , and  $I$ , the following statements of economic theory are predicted:

- 1) A rise in FDI would yield a higher GDP growth rate.
- 2) The current GDP is explained by the level of FCE. The higher the FCE is, the greater the GDP level will be.
- 3) The amount of GDP is directly proportional to the increase in IIC.

The equation of the econometric model is:

$$\begin{cases} Y_t = a_0 + a_1 F_t + a_2 C_t + a_3 I_t + \varepsilon_t \\ a_0, a_1, a_2, a_3 > 0 \\ E(\varepsilon_t) = 0; \sigma(\varepsilon_t) = \text{const.} \end{cases}$$

## 3. Testing of the regression model based on World Bank data in Table 2

Based on data analysis function in Microsoft Office Excel:

$$\begin{cases} Y_t = 1.12 + 0.06F_t + 0.75C_t + 1.14I_t + \varepsilon_t \\ (0.49)(0.26)(0.08)(0.12)(0.2) \\ \text{Adjusted } R^2 = 0.9989; F = 3684 \end{cases}$$

### R-squared test:

In Table 3, the Adjusted R Square equals 0.9989, meaning that 99.89% of changes in Cambodia's GDP are explained by changes in FDI, FCE, and IIC of Cambodia by a linear regression model.

### F-test (proving significance of R-squared):

$$\begin{aligned} F &= 3684; F_{\text{crit}} = 3.86; \\ P\text{-value of } F &= 3.23\text{E-14} = 3.23 \times 10^{-14}. \end{aligned}$$

The  $F$  amount is greater than the critical value of Fisher distribution. Therefore, the R-squared is non-random, and the quality of the specification of the model is high.

Not differently, as the  $P$ -value of  $F$  is less than the level of significance ( $\alpha$ ), 0.01, 0.05, and 0.1, it

proves that the above conclusion about the R-squared and the quality of the specification of the model is correct.

### Adequacy test:

$$Y_{2021} = 27.4; \hat{Y}_{2021^-} = 26.96; \hat{Y}_{2021^+} = 27.84.$$

The real value of the GDP of Cambodia in 2021 lies between two boundaries of the confidence interval. The model is, therefore, adequate at a 95% confidence interval.

### t-test:

Table 4

Results for t-test Analysis

	t Stat	T <sub>crit</sub>	P-value
Intercept	2.29	2.26	0.05
$F$	0.24	2.26	0.82
$C$	9.52	2.26	5.38E-06
$I$	9.87	2.26	3.99E-06

Source: compiled by the authors.

As shown in Table 4, the absolute values of the t Stat of intercept, FCE, and IIC are more than the critical value of student distribution, so the coefficients of the intercept, FCE, and IIC are significant.

In addition, the absolute values of the P-value disclose that the P-value of the intercept, the FCE, and the IIC are less than the alpha value, not differently, meaning that the coefficients of the intercept and the exogenous variable of the FCE and the IIC are significant.

### First Gauss-Markov condition:

$$\begin{cases} Y_t = a_0 + a_1 F_t + a_2 C_t + a_3 I_t + \varepsilon_t \\ E(\varepsilon_t) = 0 \end{cases}$$

The first Gauss-Markov statement claims that the mathematical expectation of the disturbance term in any observation should equal zero,  $E(\varepsilon_t) = 0$ .

Based on the calculations, the average of the residual values is approximately equal to zero, then the first Gauss-Markov condition is confirmed.

### Second Gauss-Markov condition (Goldfeld-Quandt test):

$$\begin{cases} Y_t = a_0 + a_1 F_t + a_2 C_t + a_3 I_t + \varepsilon_t \\ \sigma^2(\varepsilon_t) = \text{const.} \end{cases}$$

The second Gauss-Markov condition claims that the variance of the disturbance term should be constant for all observations.

$$\text{Var}(\varepsilon_t) = \text{const.}$$

$$\text{or } \sigma^2(\varepsilon_t) = \text{const.}$$

Additionally, the Goldfeld-Quandt test (GQ-test) is applied to make sure whether the second Gauss-Markov condition is confirmed. Therefore, the values of  $GQ$  and  $1/GQ$  with a critical value of Fisher distribution are needed to compare.

According to the GQ-test, the results show that:

$$GQ = 0.65; 1/GQ = 1.53; F_{\text{Crit}, GQ} = 19$$

The level of  $F_{\text{Crit}, GQ}$  is greater than the  $GQ$ , and greater than the  $1/GQ$  value. Therefore, the residuals are homoscedastic, the second Gauss-Markov condition is satisfied, and regression coefficients are unbiased, consistent, and efficient.

### Third Gauss-Markov statement (Durbin-Watson test in Table 5):

The third Gauss-Markov condition states that residuals are distributed independently.

$$\text{Cov}(e_i, e_j) = 0; i \neq j$$

$$DW = 1.817.$$

The distribution of the Durbin-Watson statistic is always between 0 and 4.

The DW constant of 1.817 lies between  $d_u$  and  $4-d_u$ , so there is no autocorrelation in the residuals. In conclusion, the third Gauss-Markov condition is confirmed, and the coefficients of the regression model are unbiased, consistent, and efficient. In other words, the values of the regression coefficients are trustworthy.

### Economic interpretation of the coefficients:

$$Y_t = 1.12 + 0.06F_t + 0.75C_t + 1.14I_t + \varepsilon_t$$

Depending on the actual values of official statistic in Cambodia, the economic interpretation of the coefficients is supposed that:

- If the FDI increases by 1 billion USD, the GDP will rise by 0.06 billion USD.
- If the FCE rises by 1 billion USD, the GDP will increase by 0.75 billion USD.
- If the IIC goes up by 1 billion USD, the GDP will rise by 1.14 billion USD.

## THE ROLE OF FDI, FCE, AND IIC IN FOSTERING CAMBODIAN GDP AND WAYS TO PROMOTE THEIR GROWTH

### 1. FDI and GDP

FDI plays a crucial role in driving economic growth by attracting external capital that can be utilized to invest in new technologies, infrastructure, and various industries. It complements domestic savings, increases competition, reduces prices, and boosts entrepreneurship. The study reveals that FDI has a positive impact on Cambodia's GDP growth, according to the result of the economic interpretation of the coefficient of FDI in the econometric model. 1 billion USD of FDI increase enabled an increase in GDP by approximately only 0.06 billion USD states that the Cambodian economy limitedly benefits from FDI because of the types of FDI, absorptive capacity,

Durbin-Watson Critical Regions

Table 5

Positive Autocorrelation		No Evidence of Autocorrelation			Positive Autocorrelation	
0	$d_l$	$d_u$	2	$4-d_u$	$4-d_l$	4
0	0.715	1.816	2	2.184	3.285	4
		Inconclusive		Inconclusive		

Source: compiled by the authors.

and the overall economic environment of Cambodia connected to the theoretical findings of some studies mentioned in the literature review. Therefore, the government should implement reforms to attract more FDI that has been attracted to sectors in which Cambodia has a comparative advantage, further enhancing economic growth. Inward FDI from China, South Korea, and Japan has contributed to Cambodia's economic growth, along with factors such as bilateral trade, exchange rate, inflation rate, and labor force [38]. This influx of foreign investment mostly leads to increased productivity levels within the economy, ultimately contributing to overall GDP growth. When foreign companies establish operations in a host country like Cambodia, they typically create employment opportunities for the local population. This not only reduces unemployment rates but also boosts consumer spending, which further fuels economic activity. Moreover, these foreign firms often engage in exporting goods and services back to their home countries or other markets, thereby increasing the nation's export revenue and positively impacting GDP.

FDI has been a primary driver of Cambodia's economic growth, contributing significantly to the country's development. Several important factors can lead to an increase in Cambodia's FDI, including:

- Democratic improvement: Increase the level of democracy of political governance and promote human rights to attract more European investors.<sup>8</sup>
- Streamlining bureaucracy: Reduce red tape and simplify business registration processes to make it easier for foreign investors to set up the enterprise.
- Infrastructure development: Invest in infrastructure like transportation networks, power grids, and communication systems to improve connectivity and lower operating costs for businesses.
- Skilled workforce development: Strengthen education and training programs to equip the workforce with the skills and knowledge that foreign companies need.

<sup>8</sup> The European Union and Cambodia. EEAS. 22.03.2024. URL: [https://www.eeas.europa.eu/cambodia/european-union-and-cambodia\\_en?s=165](https://www.eeas.europa.eu/cambodia/european-union-and-cambodia_en?s=165)

- Tax incentives: Offer competitive tax rates, tax breaks, or SEZs to incentivize foreign investment in targeted sectors.

- Investment protection: Provide strong legal frameworks and institutions that protect foreign investors' property rights and ensure fair treatment.

- Transparency and predictability: Uphold clear and consistent regulations and policies to create a predictable business environment for foreign investors.

- Focus on priority sectors: Identify main sectors with high growth potential, like manufacturing, tourism, or renewable energy, and tailor policies and incentives to attract FDI in those areas.

- Promoting sustainability: Balance economic development with environmental and social considerations to attract environmentally conscious investors.

## 2. FCE and GDP

FCE represents the spending of households, businesses, and the government on goods and services within the economy. In the context of Cambodia, FCE contributes significantly to the country's GDP by driving economic growth and supporting various sectors of the economy. FCE ranks second as a driver of Cambodia's GDP compared to the potential of FDI and IIC, based on the economic interpretation of the coefficients that its 1 billion USD increase can raise Cambodian GDP by around 0.75 billion USD. As consumer confidence and disposable incomes rise, people tend to spend more, which stimulates production and creates demand for goods and services. This increased demand encourages businesses to expand production, hire more workers, and invest in further growth. When consumers spend money, businesses earn revenue. The revenue of these businesses allows them to invest in additional resources, hire more employees, and pay salaries. The newly hired employees then spend their wages on goods and services, further stimulating demand in other sectors. This process creates a ripple effect that can amplify the initial impact of FCE on GDP. As businesses experience rising demand due to higher spending, they may be incentivized to invest in expanding their production capacity or developing new products. This investment creates jobs, stimulates further economic activity, and ultimately contributes to long-term GDP growth.



The government can utilize its spending to invest in infrastructure, education, healthcare, and social programs. These investments create jobs, improve living standards, and stimulate private consumption, ultimately contributing to overall GDP growth.

The growth of FCE uppers demand for goods and services across many sectors such as retail, manufacturing, agriculture, and services. The trend of its growth can be attributed to various factors such as increasing household incomes, government spending, tourism, foreign investment, and rising urbanization.<sup>9</sup> Increasing FCE in Cambodia can be achieved through various effective strategies such as:

- Promoting financial inclusion: Enhancing access to financial services, such as banking accounts, credit facilities, and insurance products, can help increase consumer purchasing power and stimulate consumption expenditure.
- Investing in education and skills development: Improving the education system and providing vocational training programs can enhance the skills and productivity of the workforce, leading to higher incomes and increased spending on goods and services.
- Supporting small and medium enterprises (SMEs): Providing support to SMEs through access to finance, business development services, and market linkages can help boost entrepreneurship, create jobs, and drive consumer demand.
- Infrastructure development: Investing in infrastructure projects, such as transportation networks, energy systems, and telecommunications facilities, can improve connectivity, reduce transaction costs, and stimulate economic activities that contribute to higher consumption levels.
- Enhancing social protection programs: Implementing social safety nets, such as cash transfer programs or unemployment benefits, can provide a buffer against economic shocks and income volatility, thereby supporting household consumption levels.

<sup>9</sup> Cambodia Economic Update: Recent Economic Developments and Outlook. The World Bank. 27.06.2022. URL: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/843251556908260855/cambodia-economic-update-recent-economic-developments-and-outlook>

### 3. IIC and GDP

The IIC sector in this study has a significant relationship to GDP in Cambodia, with evidence from the economic interpretation of the IIC coefficient demonstrating that GDP will increase by 1.14 billion USD approximately if the IIC rises by 1 billion USD. Moreover, the breakdown of GDP contributions by sectors in Cambodia in 2021 reveals that the IIC contributed 36.83%, the services sector contributed around 34.18%, and agriculture contributed 22.85%.<sup>10</sup> This distribution underscores the pivotal role played by the industry sector in driving economic growth and development in Cambodia. The IIC sector comprises value added in mining, manufacturing (also reported as a separate subgroup), construction, electricity, water, and gas.

Mining in Cambodia plays a significant role in the country's industrial sector. The mining industry in Cambodia includes the extraction of various minerals such as gemstones, gold, iron, and bauxite. These minerals contribute to the overall value added in the industry sector by providing raw materials for manufacturing processes and exports. However, the mining sector in Cambodia has faced challenges related to environmental sustainability and regulation to ensure responsible mining practices.

Manufacturing is a crucial component of Cambodia's industrial landscape, encompassing a wide range of activities from textiles and garments to electronics and food processing. The manufacturing sector adds substantial value to the economy by creating employment opportunities and generating exports. The manufacturing industry benefits from Cambodia's strategic location, favorable trade agreements, and a relatively low-cost labor force. However, there have been concerns about labor conditions and the need for diversification within the manufacturing sector to enhance competitiveness.

The construction industry in Cambodia has experienced rapid growth in recent years, driven

<sup>10</sup> Cambodia — Share of Economic Sectors in the Gross Domestic Product. Statista. 8.12.2023. URL: <https://www.statista.com/statistics/438728/share-of-economic-sectors-in-the-gdp-in-cambodia/>

by infrastructure development, real estate projects, and urbanization. Construction activities contribute significantly to the value added in the industrial sector by creating demand for materials, labor, and services. The construction sector plays a vital role in supporting economic growth, attracting investment, and improving living standards. Challenges in the construction industry include issues related to quality standards, safety regulations, and sustainable urban planning.

Electricity generation is a critical component of Cambodia's industrial infrastructure, providing power for industrial processes, commercial activities, and residential consumption. The electricity sector in Cambodia includes both conventional sources such as thermal power plants as well as renewable energy sources like hydropower and solar energy. Ensuring a reliable and affordable electricity supply is essential for supporting industrial growth and enhancing productivity across various sectors.

Water resources management is essential for sustaining industrial activities in Cambodia, particularly agriculture, manufacturing, and energy production. Efficient water management practices are crucial for ensuring adequate water supply for industrial processes while maintaining environmental sustainability. Issues such as water pollution, scarcity during dry seasons, and climate change impacts pose challenges to effective water resource management in Cambodia.

The gas sector in Cambodia includes activities related to natural gas exploration, production, distribution, and consumption. Natural gas plays a role in diversifying the energy mix and reducing dependency on traditional fossil fuels. Developing the gas sector can contribute to energy security, environmental sustainability, and economic growth by providing cleaner energy options for industrial processes and power generation.

One key driver contributing to the growth of the industry sector in Cambodia is foreign investment, particularly in industries such as garment manufacturing and construction. Government initiatives collectively contributing to creating a

favorable environment for industries in Cambodia play a crucial role in fostering growth within the IIC sector, leading to overall economic growth. To promote the industry sector, the Cambodian government has, therefore, implemented several initiatives, such as:

- **Industrial Development Policy:** Cambodia's Industrial Development Policy focuses on promoting industrial diversification, enhancing competitiveness, and increasing value addition in the industry sector. The policy aims to attract FDI by offering incentives and creating a conducive business environment for industries.

- **SEZs:** The government has established SEZs across the country to attract investment and promote industrial development. SEZs offer various incentives such as tax breaks, streamlined regulations, and infrastructure support to encourage businesses to set up operations within these zones.

- **Skills development programs:** The government has implemented skills development programs aimed at providing a skilled workforce for industries. Through the investment in education and training programs, Cambodia aims to enhance the capabilities of its workforce and meet the evolving needs of industries.

- **Infrastructure development:** The government is focusing on improving infrastructure such as roads, ports, and utilities to support industrial activities. Enhancing infrastructure not only facilitates the movement of goods and services but also reduces operational costs for businesses operating within the sector.

- **Promotion of renewable energy:** In line with its commitment to clean energy transition, Cambodia is promoting renewable energy sources such as solar power. Initiatives like the "Principles for Permitting the Use of Rooftop Solar Power" aim to regulate and encourage the adoption of solar energy technologies within the industry sector.

- **Investment promotion policies:** The government has put in place investment promotion policies that aim to attract both domestic and foreign investments in key industries. When offering incentives such as tax holidays, duty exemptions, and investment protection guarantees, Cambodia seeks to stimulate investment flows into the industry sector.

## CONCLUSIONS AND RECOMMENDATIONS

With the regression model construction and analysis and results discussion, the study investigates the sectors, such as FDI, FCE, and IIC, influencing GDP growth in Cambodia and determines the strategic ways to attract FDI, promote FCE, and boost IIC activities. FDI has a positive and direct impact on economic growth in Cambodia in the long run by providing capital, fostering innovation, and creating jobs to strengthen various sectors and boost exports. This positive impact is further amplified when the government prioritizes attracting FDI in sectors aligned with Cambodia's comparative advantages. However, how the FDI impacts GDP growth in Cambodia may depend on the type of FDI, the country's absorptive capacity, and the overall economic environment that should be optimized by the Cambodian government. The study demonstrates that policies related to democratic improvement, streamlining bureaucracy, infrastructure development, skilled workforce enhancement, tax incentives, investment protection, transparency and predictability, focus on priority sectors, and promoting sustainability are helpful for Cambodian FDI promotion, ultimately achieving upper-middle-income status by 2030 as planned.<sup>11</sup>

Not differently, FCE positively and significantly impacts economic development in Cambodia by driving aggregate demand, stimulating production, encouraging investment, improving living standards, and fostering economic diversification. FCE's positive influence stems from its ability to stimulate production across various sectors, fueled by consumer confidence and rising disposable incomes. This process creates a ripple effect where businesses invest in growth, hire more workers, and ultimately contribute to long-term GDP expansion. However, the FCE amount, composition

of FCE, and economic context can differentiate the level of the impact of FCE on Cambodian GDP. Through the implementation of effective strategies like promoting financial inclusion, investing in skills development, supporting SMEs, developing infrastructure, and enhancing social safety nets, Cambodia can ensure continued growth in FCE and solidify its role as a key driver of the nation's economic prosperity.

The growth of the IIC has, as well as, had numerous positive impacts on the economy. According to the results of the economic interpretation of the coefficients, the IIC sector has significantly contributed to Cambodian GDP, ranking number one as the most powerful sector compared to FDI and FCE. This IIC sector in Cambodia benefits from various activities such as mining — which provides raw materials, manufacturing — creating job opportunities and boosting exports, construction — fueling infrastructure development, reliable electricity generation for both industry and households, efficient water management for various sectors, and a developing gas sector that offers cleaner energy and economic opportunities. Implementing strategic government initiatives such as the Industrial Development Policy, SEZs, skills development programs, infrastructure development, promotion of renewable energy, and investment promotion policies can help Cambodia promote industrial diversification, enhance competitiveness, and increase the value addition in the industry sector.

Further research should be conducted in these fields to achieve a better and joint understanding of the way FDI, FCE, and IIC influence the GDP growth rate in Cambodia. To receive grounded and in-depth studies about these sectors, the Cambodian government should promote the relevant research interests and initiate some research funds aimed at encouraging highly qualified foreign and Cambodian researchers to conduct more professional studies, causing the Cambodian government easier to make informed decisions in imposing the governmental policies effectively and efficiently.

<sup>11</sup> The World Bank In Cambodia. Overview. The World Bank. 12.04.2023. URL: <https://www.worldbank.org/en/country/cambodia/overview>

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