

# Research on the Impact of Chinese Investment on Cambodian Economy

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**Abstract-** With the establishment of the China-ASEAN Free Trade Area and the deepening of bilateral economic cooperation, especially the implementation of China's "One Belt, One Road" strategy, more and more Chinese companies have entered Cambodia, and their investment in Cambodia is increasing and investing. The quality is also increasing. While China's investment in Cambodia continues to deepen cooperation between the two sides, it also has an important impact on Cambodia's economic development and growth. Especially with the support of the preferential policies of the Chinese and Cambodian governments, the impact of Chinese investment on the Cambodian economy has become more and more obvious. In this context, what is the development of China's investment in Cambodia and the environment in which Cambodia attracts Chinese investment? What is the impact of Chinese investment on the Cambodian economy? What is the specific impact? It is a very practical question worth exploring. This paper uses literature analysis, empirical research and other methods to analyze the impact of Chinese investment on the Cambodian economy from both theoretical and empirical aspects. Firstly, the related background, significance, purpose, and method of this research are introduced. At the same time, the related research literature at home and abroad are summarized and the relevant theoretical foundations are summarized, which lays a solid theoretical foundation for the specific research of this paper. The quantity, region, and industry analysis the status of China's investment in Cambodia. Then it analyzes the impact of Chinese investment on Cambodia's economic from both theoretical and empirical aspects. Finally, according to the research results, it proposes to promote further China's investment in Cambodia and Cambodia, economic policy recommendations.

**Keywords-** Chinese investment; Cambodia; Economic; Impact.

## I. INTRODUCTION

Since the 1990s, the economies of all countries in the world have developed rapidly, and China has followed the pace of globalization. China has proposed a strategy of utilizing the resources of both domestic and foreign markets. China hopes that its enterprises will be able to step out of the world. One of the strategies. Since 1998, Chinese companies have begun to go abroad, especially in Southeast Asia. China has developed a "One Belt, One Road" strategy to open up the economy to the world and to achieve win-win and inclusive cooperation with all countries. On the stage. At present, China has already achieved more success in the process of going out of more and more enterprises and has much promoted the economic development of local countries or regions. In this context, China-ASEAN economic cooperation has deepened and China's investment in Southeast Asia has increased. China's investment in Southeast Asia has also become a hot issue in theoretical and academic research. Although the theoretical circles have rich research on Chinese investment and ASEAN, there are still few studies on Chinese investment and Cambodia, and there is no direct research on the impact of Chinese investment on Cambodian economy. Therefore, this study can theoretically enrich and improve the research content of the role of Chinese investment in Cambodian economic development. At the same time, it will analyze the practices and policies of attracting investment in Cambodia., which can also provide theoretical guidance for Chinese enterprise investment and the introduction of Chinese capital in Southeast Asian countries.

## II. CHINESE INVESTMENT AND CAMBODIAN ECONOMY

Cambodia is not only an essential member of ASEAN, but also a relevant country along the Belt and Road in China. The development of trade relations between China and Cambodia is also very rapid. China has invested heavily in the Cambodian market and has made significant contributions to the economic development of Cambodia.

Chap Sotharith (2010) compares and analyzes the status of foreign trade, foreign investment, foreign aid cooperation and economic effects of China, Japan and South Korea during the period 1994-2009, and believes that China has a positive impact on Cambodia's social and economic recovery and growth. Cambodian scholar Song Chunben (2012) summarized the current situation of Cambodia-China trade in the article "Strengthening China-Cambodia Economic Cooperation" and made recommendations for strengthening trade relations between the two countries.

Li Weiguang (2016) pointed out that in recent years, China has paid more and more attention to the economy of ASEAN countries. The economic exchanges between the two countries have become more frequent. Investment has become one of the critical forces for ASEAN to attract foreign investment. China has invested in ASEAN countries. The increase shows that China is paying more and more attention to the investment markets of the 10 ASEAN countries, and China and ASEAN have already gone through the golden decade together. The economic cooperation between the two sides has become more consolidated, and China's efforts to establish countries along the "One Belt, One Road" have been established. With closer economic cooperation, the Cambodian countries should fully seize the opportunity to participate in the China-ASEAN Free Trade Area and the "One Belt, One Road" construction, give full play to the country's advantages and attract more Chinese and foreign investment in Cambodia. China has become one of the largest foreign-funded countries in Cambodia, but there are also problems in attracting direct investment from China in Cambodia, such as small investment scale, backward economic development level, back infrastructure, and unstable political environment. It has affected the quantity and quality of Cambodia's direct investment in China.

Li Honglei (2017) starts from the main areas of China's investment in Cambodia and analyzes the current situation and characteristics of China's investment in Cambodia from a micro level. It shows that Chinese companies have a significant investment in Cambodia and their placement is good. Besides, the comparison between the successful case of Chinese companies investing in the Sihanoukville Special Economic Zone in Cambodia and the failure of Chinese enterprises to invest in the Myitsone hydropower station in Myanmar shows that Cambodia's investment environment is suitable for investment, Cambodia's relatively stable political situation and the critical domestic political figure Hun Sen. Support for Chinese companies is an essential reason for the success of Chinese-funded enterprises in the Sihanoukville Special Economic Zone project.

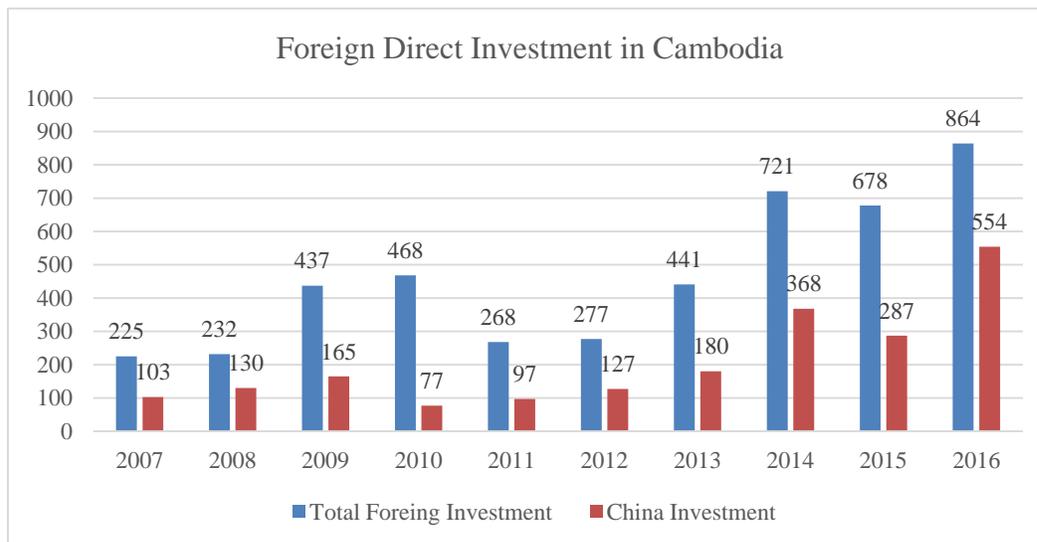
Through the review and statistics of related materials, the statistics of China's investment in Cambodia in the past decade are shown in the following table:

Table1: Statistics on foreign direct investment in Cambodia from 2007 to 2016 Unit: million dollars

Year	Total Foreign Investment	China Investment	Increase	Proportion	Ranking
2007	225	103	25.95%	45.78%	1
2008	232	130	26.21%	56.03%	1
2009	437	165	26.92%	37.75%	1
2010	468	77	-53.33%	16.45%	2
2011	268	97	25.97%	36.19%	2
2012	277	127	30.92%	45.85%	1
2013	441	180	41.73%	40.81%	1
2014	721	368	104.44%	51.04%	1
2015	678	287	-22.01%	42.33%	1
2016	864	554	93.03%	64.12%	1

Chart 1: Foreign Capital Investment in Cambodia

Unit: million dollars



According to the above statistics, we can see that: First, China has long been the primary source of foreign investment in Cambodia, China's total investment in Cambodia ranks first in Cambodia's foreign investment for a long time, and China's investment accounts for the main proportion of Cambodian investment. Secondly, China's total investment in Cambodia has increased rapidly, and in a few years, China's investment in Cambodia has increased by more than 20% over a long period of time.

### III. AN EMPIRICAL ANALYSIS OF THE IMPACT OF CHINESE INVESTMENT ON CAMBODIAN ECONOMY

#### 1. Research Hypothesis

This paper studies the impact of Chinese investment on Cambodia's economic growth. Therefore, this paper empirically assumes that Chinese investment has a significant impact on Cambodia's economic growth, and this effect is positive, that is, Chinese investment can promote Cambodia's economic growth. According to the above theoretical analysis of the impact of Chinese investment on Cambodia's economic development, it can be seen that the impact of Chinese investment on the Cambodian economy are multifaceted. It can not only make up for the capital shortages in Cambodia's economic development, but also promote Cambodia's economic development technology. The increase will increase the employment and income levels of Cambodia and encourage the modern management of Cambodian enterprises and the development of foreign trade.

First, the growth of a country's economy undoubtedly requires a higher economic development technology, while Chinese investment can promote the growth of Cambodia's economy by supporting the development of Cambodia's economic development technology. Second, economic development and growth are carried out by a country or region. When the income of each is raised, Chinese investment can increase Cambodia's income and employment. When the individual's work is solved and the income increases, then the economic growth of the entire country is inevitable. Also, in economic development, the enterprise are the most basic and important part, only when the enterprise develops and expands, can it promote economic growth. Chinese investment can promote the modern management of Cambodian enterprises, increase the efficiency of enterprises through management, and achieve the growth of Cambodia's GDP and economic growth; In economic development, investment, exports, and consumption are three carriages. Chinese investment can promote the development of Cambodia's foreign trade, and it can also encourage the economic growth of its economy by increasing its international business. Based on the above analysis, this paper proposes a research hypothesis: Chinese investment has a significant impact on Cambodia's economic growth, and Chinese investment can promote Cambodia's economic development.

#### 2. Variable Setting

This paper empirically studies the impact of Chinese investment on Cambodia's economic growth, so Cambodia's economic growth is chosen as the explanatory variable in this empirical study. In this paper, considering the availability of data and the versatility of indicators, it is decided to select the GDP growth rate to measure Cambodia's economic growth. Therefore, the explanatory variables in this paper can be expressed explicitly as the growth rate of Cambodia's GDP, expressed explicitly by RGDP.

Due to the considerable absolute value of China's FDI in Cambodia, to make the empirical analysis more scientific and reasonable, this paper will take the logarithm of the total value of China's FDI to Cambodia as a specific explanatory variable, which can be expressed as  $\ln \text{cfdi}$ .

Through the review and summary of the relevant research literature, and referring to the selection of factors affecting Cambodia's economic growth in other scholars' proper research, this paper will choose Cambodian export trade ( $\ln \text{trad}$ ), human resources ( $\text{wofo}$ ), and total foreign investment ( $\ln \text{tfdi}$ ). Factors were used as control variables in the study.

In summary, the summary of all variables in the empirical study in this paper is shown in the following table:

Table 2: Summary of variables

Variable Type	Name	Express compliance	Meaning
Explained variable	Cambodian Economic Growth	<u>RGDP</u>	GDP Growth Rate in Cambodia
Explained variable	China Investment	<u>Lncfdi</u>	China's total direct investment in Cambodia
Explained variable	Export trade	<u>Lntrad</u>	Cambodia's total foreign trade exports
Explained variable	Human Resources	<u>wofo</u>	Proportion of social labour force in Cambodia
Explained variable	Total foreign investment	<u>Lntfdi</u>	Cambodia attracts foreign capital investment

### 3. Sample Selection and Data Sources

This paper studies the impact of Chinese investment on Cambodia's economic growth. Therefore, the sample selection of empirical research in this paper will select relevant data from Cambodia and China's relevant data on Cambodia investment as a sample of this study. Consider the availability and authenticity of relevant data, this paper will select Cambodia's 2001-2014 GDP donation, export trade volume, total social labor force, total foreign investment, and China's total investment in Cambodia as research sample.

There are three main sources of relevant data in this study: one is that Cambodia's annual GDP growth rate in 2005-2017 is obtained through direct access; the other is Cambodia's yearly total export trade, foreign investment and China's total in 2005-2017. Cambodian investment is collected by logarithm on a direct data basis. Third, data is collected by simple calculations on raw data. The annual social labor share of Cambodia in 2005-2017 is captured in this way.

Through the above two ways, we finally collected all the variable data of Cambodia's GDP growth rate in 2005-2017, China's investment in Cambodia, export trade, human resources and total foreign investment.

### 4. Model Setting

In the construction of the empirical research model in this paper, the multiple linear regression model will be selected for empirical analysis. Combined with the choice of explanatory variables, explanatory variables and control variables, a basic multiple regression model will be constructed as shown in the model (1):

$$RGDP = \alpha_0 + \alpha_1cfdi + \alpha_2trad + \alpha_3wofo + \alpha_4tfdi + \mu \quad \text{model (1)}$$

In order to make the variable model more economically meaningful,, the basic model is improved, and the model of Chinese investment in Cambodia, total investment in Cambodia, and Cambodian export trade is logarithmically established (2), and in the end The analysis uses the model (2) for analysis.

$$RGDP = \alpha_0 + \alpha_1lncfdi + \alpha_2lntrad + \alpha_3wofo + \alpha_4lntfdi + \mu \quad \text{model (2)}$$

In the above two models, RGDP represents Cambodia's annual GDP growth rate, cfdi represents China's total direct investment in Cambodia each year, trad represents Cambodia's total annual export trade, and wofo represents Cambodia's annual social labor share, tfdi said Total foreign investment in Cambodia.

### 5. Empirical Analysis

#### 5.1 Sample Descriptive Statistics

In this paper, the relevant data of Cambodia from 2005 to 2017 is taken as a sample. After the data is processed, the data is entered into the Stata software, and the descriptive statistics of the full sample data in this empirical study are finally obtained. The specific data is as shown in the table 3:

Table 3: Descriptive statistical analysis results

Variable	Observation Number	Average Value	Standard Deviation	Minimum Value	Maximum Value
RGDP	14	7.821429	3.437391	0.1	13.6
Intrad	14	3.713832	0.5998647	2.704711	4.671052
wofo	14	0.7394407	0.1409695	0.5199	0.8524
lncfdi	14	4.512248	1.314786	1.064711	6.317165

Intfdi	14	5.358716	1.246305	2.612273	6.761573
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Source: This study is organized

According to the above table, the descriptive statistical analysis shows that the minimum economic growth rate of Cambodia is 0.1, the maximum is 13.6, the average is 7.8, and the standard deviation is 3.43. This shows that Cambodia's economic growth in the past 15 years is not stable. The fluctuations are large, and the slowest growth rate is only 0.1% in 2009, and the fastest growth is 13.6 in 2005. The average export value of Cambodia's foreign trade is 3.71, and the variance is 0.599, indicating that Cambodia's export trade in the past 15 years is relatively volatile and relatively stable. The average population of Cambodia's labor force is 0.73, and the variance is 0.14, which indicates that Cambodia's labor force population is relatively high. The labor force population in the past 15 years is relatively abundant and relatively stable, providing sufficient human resources for Cambodia's economic development. The average value of China's investment in Cambodia is 4.51, and the standard deviation is 1.31, indicating that China's investment in Cambodia is unevenly distributed, and the annual difference is large. This is related to the development of the world economy, China's foreign policy and economic development, and the domestic environment of Cambodia. There is a close relationship; the average foreign investment of Cambodia is 5.35, and the difference is 1.24. It is similar to the variable China's investment in Cambodia, and the distribution is uneven and fluctuating.

### 5.2 Correlation Analysis

In order to preliminarily verify the possibility of the research hypothesis proposed in this paper and to test whether there is a correlation between the variables in the empirical model, this paper analyzes the correlation between variables based on the relevant data of Cambodia 2005-2017. After the data is directly imported into the Stata software, the correlation analysis results of the sample data can be directly output. The results are shown in Table 4:

Table 4: Correlation analysis statistics

	RGDP	Intrad	wofo	lnctdi	Intfdi
RGDP	1				
Intrad	0.241**	1			
wofo	0.261***	0.771***	1		
lnctdi	0.078***	0.915***	0.631***	1	
Intfdi	0.151***	0.929***	0.795***	0.922***	1

Note: \*\*\*, \*\*, \* are significant at 1%, 5% and 10% levels.

According to the above table, the statistical analysis of correlations between related variables shows that there is a positive correlation between the variable Cambodian export trade and the variable Cambodian economic growth. The correlation coefficient is 0.241, and it is significant at the level of 5%. There is a positive correlation between Cambodia's economic growth; there is a positive correlation between the variable Cambodian social labor force population and the variable Cambodian economic growth, the correlation coefficient is 0.261, and it is significant at the 1% level, indicating the variable Cambodian society. The proportion of labor force has a positive correlation with Cambodia's economic growth; variable China has a positive correlation between Cambodian investment and variable Cambodian economic growth, the correlation coefficient is 0.078, and it is significant at the level of 1%, indicating that China's investment and Cambodia's economy are preliminary. There is a positive correlation between growth; there is a positive correlation between the total foreign investment of Cambodia and the variable Cambodian economic growth, the correlation coefficient is 0.151, and it is significant at the level of 1%, indicating the total foreign investment and the economic growth of Cambodia. Positive relationship.

In addition, the relationship between other variables, the variable social labor population and the export trade have a positive correlation, and is significant at the 1% level; the variable China has a positive correlation between Cambodian investment and variable export trade. And at the 1% level, there is a positive correlation between the variable Chinese investment and the variable social labor population, and significant at the 1% level; the final variable foreign investment total has a positive correlation with several other variables. Both are significant at the 1% level.

### 5.3 Regression analysis

In the empirical analysis of the impact of Chinese investment on Cambodia's economic growth, this paper establishes model 1 and model 2, and chooses model 2 for regression analysis. The relevant data of each variable of the model are processed and input directly into Stata software. The final regression results can be obtained by issuing relevant commands, as shown in Table 5.

Table 5: Estimated results of the impact of Chinese investment on Cambodia's economic growth

VARIABLES	(1) RGDP
Lncfdi	4.489** (1.75)
Lntrad	4.864* (1.10)
wofo	1.342** (0.07)
Lntfdi	2.919* (0.91)
Constant	20.278*** (2.21)
Observations	14
R-squared	0.6432
F Test	1.10 (0.0038)

Note: 1) Standard errors in parentheses; 2)\*\*\*,\*\*, \* are significant at 1%, 5% and 10% levels.

According to the statistics of the regression estimation of the impact of Chinese investment on the Cambodian economy according to the above table, it can be seen that the R of the regression model is 0.6432, indicating that the fitting degree of the model reaches 64.32%, that is, the degree of interpretation of the explained variable by the explanatory variable. It reached 64.32%; the P value of the F test was 0.0038, less than 0.01, indicating that the model rejected the null hypothesis at the 1% level, that is, the linearity of the model passed the test, and the regression results could be interpreted and analyzed.

According to the regression results of the above table, it can be found that there is a positive correlation between the explanatory variables of China's investment in Cambodia and the economic growth of Cambodia. The correlation coefficient is 4.489, and it is significant at 5%, indicating that when China's investment in Cambodia does not increase by 1%, Cambodia's economic growth will increase by 4.489%; the correlation coefficient between the control variable Cambodia's export trade and the economic growth of the explanatory variable is 4.864, and it is significant at the 10% level, indicating that Cambodia's export trade is increased by 1%, Cambodia's economic growth will increase by 4.864%; the control variable social labor population ratio and the explanatory variable Cambodia's economic growth correlation coefficient is 1.342, and is significant at 5%, indicating that when the Cambodian social labor force increased by 1%, the Cambodian economy Growth will increase by 1.342%; the correlation coefficient between the total foreign investment of controlled variables and the economic growth of the explanatory variable is 2.919, and is significant at the level of 10%, that is, when the total foreign investment increases by 1%, Cambodia's economic growth will increase. 2.919%.

#### 5.4 Robustness Test

The main purpose of the robustness test is to judge the analytical methods in the empirical research and the explanatory strength of each index. When some variables or parameters in the model change, the final empirical results are basically consistent. In the study of this paper, the measurement of Cambodia's economic growth can be measured directly by gross domestic product, in addition to the GDP growth rate that can be used. Therefore, this paper will be selected from the method of replacing the explained variables. The test of robustness replaces the GDP growth rate of the dependent variable in the model with GDP, and the specific regression results are shown in Table 6:

Table 6: Regression analysis of the impact of Chinese investment on Cambodia's economic growth

VARIABLES	(1) RGDP
Lncfdi	3.995** (2.70)
Lntrad	3.164* (11.27)
wofo	0.821** (2.98)
Lntfdi	0.726* (1.58)
Constant	5.827*** (56.31)
Observations	14
R-squared	0.9937
F Test	57.27 (0.0000)

Note: 1) Standard errors in parentheses; 2) \*\*\*, \*\*, \* indicate significant levels at 1%, 5%, and 10%.

According to the statistical analysis of the robustness of the above table, there is a positive correlation between Chinese investment and Cambodia's economic growth. It is significant at the level of 5%; there is a positive correlation between variable export trade and economic growth, At the level of 10%; there is a positive correlation between the variable social labor population and economic growth, and is significant at the level of 5%; there is a positive correlation between the variable foreign investment and economic growth and is significant at the 10% level. It is consistent with the regression results, so we can think that this investment in China is robust to the empirical return of Cambodia's economic growth.

#### 6. Empirical results

According to the above empirical research analysis, four conclusions can be obtained:

1. China's investment has a relatively noticeable impact on Cambodia's economic growth. Increasing China's investment can further promote Cambodia's economic growth, which also verifies the correctness of the research hypothesis;
2. Export trade has a positive effect on Cambodia's economic growth. The government should encourage Cambodians to increase productivity and reduce imported products.
3. The proportion of Cambodia's human labor population is of considerable significance to its economic growth. The increase in the proportion has contributed to Cambodia's economic growth;
4. Foreign investment also has a positive effect on Cambodia's economic growth.

### IV. CONCLUSIONS AND POLICY RECOMMENDATIONS

#### 1. Conclusion

This paper conducts a specific study on the impact of Chinese investment on Cambodia's economy by using the methods of empirical research and literature research. Three conclusions are drawn in this paper:

1. China is one of the primary sources of investment in Cambodia, and China's investment in Cambodia is highly concentrated, both in the investment industry and in the investment region.
2. Cambodia has a good investment environment, which attracts many countries such as Japan, Korea, China and some European and American countries. Among them, Cambodia's investment environment also has a particular attraction to China's investment.

3. China's investment has obviously promoted Cambodia's economic growth.

## 2. Policy recommendations

Since Chinese investment has a more significant impact on Cambodia's economic growth, as Cambodia itself, it should formulate more preferential policies to create a better investment environment to attract and protect Chinese investment and thus promote its economic growth. First, we must further strengthen cooperation with China, establish closer economic and cultural ties, and attract more Chinese investment. Second, we must introduce more preferential policies, create a pleasant investment environment, and create a safe and reliable environment for Chinese investment. The third is to adjust the structural adjustment of the industrial structure and make full use of the capital, technology and experience of foreign capital to enhance the level of economic development of the country.

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