

# The Impact of Institutional Environment on China's Outward Foreign Direct Investment in the Countries Along "The Belt and Road"

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**ABSTRACT.** Since "the Belt and Road" initiative was launched in 2013, China's outward foreign direct investment has developed rapidly. And the impact of the institutional environment on China's outward foreign direct investment has received widespread attention. This paper selects panel data from 24 representative countries along "the Belt and Road" from 2003 to 2018 to investigate the impact of institutional environment including political environment, business environment and investment environment on the location choice of China's outward foreign direct investment. The study found that the political environment, business environment and investment environment all have a significant positive impact on China's outward foreign direct investment in the countries along "the Belt and Road". Studies have shown that, Chinese enterprises are sensitive to changes in the institutional environment. Chinese enterprises prefer to invest in countries along "the Belt and Road" with better political environment, business environment and investment environment.

## 1. INTRODUCTION

Since "the Belt and Road" initiative was launched in 2013, China's outward foreign direct investment has achieved rapid development. And especially China's direct investment in countries along "the Belt and Road" has shown a strong growth trend. In 2018, China's outward foreign direct investment flow reached US \$ 143.04 billion. China's outward foreign direct investment flows in countries along "the Belt and Road" reached US \$ 17.89 billion, accounting for 12.5%. From 2013 to 2018, Chinese companies invested more than US \$ 90 billion in countries along "the Belt and Road", with an average annual growth rate of 5.2%. While China's outward foreign direct investment in the countries along "the Belt and Road" is increasing, it is also facing a series of problems. For example, relevant legislation for Mongolia's mineral industry changes very frequently. Mongolia imposes entry restrictions on foreign investment, which has led to China's investment in Mongolia's mineral industry being hindered. This shows that the host country's institutional environment is an important factor restricting the location choice of China's outward foreign direct investment.

### 1.1. Related Work

A study has found that China's overall outward foreign direct investment tends to flow to countries with better institutions [1]. However, another study has found that China's outward foreign direct investment is more inclined to flow to countries with higher institutional risks [2]. Specifically, host country's political stability and the quality of regulation will affect the entry of foreign direct investment [3]. In addition, a study has found that the host government's effectiveness, quality of regulation, and corruption control significantly affect China's outward foreign direct investment [4]. In addition to political environment, business environment measures the institutional environment from a micro perspective. The hostile business environment of the host country will increase the transaction costs of business operations [5], which will reduce the investment momentum of Chinese enterprises. With the continuous deepening of research, the institutional environment has further expanded into the political environment, business environment and investment environment. And they all have a significant positive impact on Chinese cross-border M&A [6].

## 1.2. Contribution

Existing literature explores the impact of host country institutional environment on China's outward foreign direct investment from multiple perspectives. However, existing research has only explored the impact of the institutional environment including the political environment, business environment and investment environment on China's overall cross-border M&A. It did not explore the country differences in the impact of these three types of institutional environments on the location choice of China's outward foreign direct investment. Since "the Belt and Road" initiative was launched, countries along "the Belt and Road" have become key areas for China's outward foreign direct investment. These three types of institutional environments may have different impacts on the location choice of China's outward foreign direct investment in countries along "the Belt and Road". So, this article aims to explore the impact of the institutional environment, including the political environment, business environment and investment environment, on the location choice of China's outward foreign direct investment in countries along "the Belt and Road". It can provide a reference for Chinese enterprises to invest in countries along the "Belt and Road".

## 2. Theoretical Analysis and Assumptions

### 2.1. Political environment and China's outward foreign direct investment

According to the institutional theory, the political environment of a country will significantly affect the business activities of enterprises. The political environment includes six areas: voice and accountability, political stability and absence of violence, control of corruption, regulatory quality, rule of law, and government effectiveness. Voice and accountability represent the degree of development of a country's democratic politics. The higher the degree of development of the country's democratic politics is, the higher the degree of openness in this country is. It will promote Chinese companies to invest in the country. At the same time, the higher the degree of control of corruption in a country is, the more beneficial it will be to reduce the operating costs of enterprises. The higher the level of rule of law in a country is, the higher the degree of protection of investor rights is. Therefore, it will attract the inflow of China's investment. What's more, the higher the government effectiveness in the countries along "the Belt and Road" is, the more comprehensive the public services they can provide. It is conducive to the development of Chinese enterprises and attracts the inflow of China's investment. Based on this, Hypothesis 1 of this paper is proposed.

**Hypothesis 1:** The better the political environment of the countries along "the Belt and Road" is, the more favorable it will be to attract inflows of China's investment.

### 2.2. Business Environment and China's Outward Foreign Direct Investment

When Chinese enterprises invest in a country, they will not only face the political environment, but also face the business environment. The quality of the business environment will significantly affect the entry cost and operating cost of enterprises. The better the business environment of a country is, the more convenient and efficient it is for Chinese enterprises to set up businesses, register property and pay taxes in the countries. In addition, the better the business environment of a country is, the higher the level of protection for companies in obtaining credit and executing contracts is. Host country's business environment will have a long-term impact on Chinese enterprises' direct investment. Good business environment will significantly reduce the risk of investment and promote investment. Based on the above analysis, this paper proposes Hypothesis 2.

**Hypothesis 2:** The better the business environment of the countries along "the Belt and Road" is, the more favorable it will be to attract inflows of China's investment.

### 2.3. Investment Environment and China's Outward Foreign Direct Investment

The investment environment of a country can be reflected by its freedom of investment, which mainly includes whether it encourages foreign companies to participate in investment fairly, whether it has foreign exchange control, whether foreign companies enjoy equal treatment, whether the

government pays, transfers, and capital deals are restricted or not, whether certain special industries' foreign investment are restricted [6]. The better the investment environment of a country is, the lower the restrictions on the entry of Chinese enterprises and the payment, transfer and capital deals will be. It will reduce the operating risk of enterprises and promote China's investment. Based on the above analysis, Hypothesis 3 of this paper is proposed.

**Hypothesis 3:** The better the investment environment of the countries along “the Belt and Road” is, the more favorable it will be to attract inflows of China’s investment.

### 3. Variable Selection and Model Setting

This article uses China’s outward foreign direct investment (OFDI) as an explained variable. And this article uses the political environment, investment environment, and business environment as the core explanatory variables. The political environment (GOV) is expressed through the World Bank's Worldwide Governance Indicator (WGI), which specifically includes six indicators. Each indicator score is between -2.5-2.5. The political environment is expressed by the equal weighted average of the six indicator scores. The business environment (BF) and investment environment (IF) are respectively expressed by the business freedom index and investment freedom index published in the annual report "Global Economic Freedom Index", both of which range from 0-100. This article divides these two indicators by 100 respectively to control the value range between 0-1.

In addition to the host country's institutional environment, there are many other variables affecting China's outward foreign direct investment. The following control variables are introduced: (1) market size (GDP). The market size of a country is an important factor affecting China's outward foreign direct investment [7]. The data comes from the World Bank. (2) Trade scale. The larger the scale of trade between China and the host country is, the closer the relationship between China and the host country is. It will provide a good environment for enterprise investment. The scale of trade between China and the countries along “the Belt and Road” can be expressed by China's exports (EX) and imports (IM) to these countries. The data comes from the China Statistical Yearbook.

In order to avoid possible heteroscedasticity, this article takes the log of China's outward foreign direct investment (OFDI) and the control variables GDP, EX, and IM respectively. However, China's outward foreign direct investment flows are negative in some countries and cannot be directly logarithmic. Therefore, this paper draws on the processing method of Qi Chunling et al [8]. We set the negative value to 1 and the logarithmic value to 0. This article takes other variables as their original values and establishes the following model which is shown in equation (1).

$$\ln OFDI_{it} = \alpha_0 + \beta_1 GOV_{it} + \beta_2 BF_{it} + \beta_3 IF_{it} + \beta_4 \ln GDP_{it} + \beta_5 \ln EX_{it} + \beta_6 \ln IM_{it} + \varepsilon_{it} \quad (1)$$

In equation (1),  $i$  represents the country,  $t$  represents the year,  $\alpha_0$  is the intercept term,  $\varepsilon_{it}$  is the model error term, and  $\beta_i$  is the corresponding coefficient.

The research samples in this paper are selected from the countries along “the Belt and Road”. But missing data in some countries may affect the accuracy of the estimation results. Therefore, this paper introduces 24 representative countries<sup>1</sup> along “the Belt and Road” as the research samples. At the same time, the data on China’s OFDI flows were officially released in 2003. Therefore, this article selects the research period from 2003 to 2018.

### 4. Empirical Results and Aanalysis

In order to eliminate the interference of inflation factors, the host country's GDP deflation index based on 2003 is used to deflate OFDI, GDP, EX, and IM variable data. Before the regression analysis, the Hausman test is used to select the model form. The P-value of the Hausman test is 0.0417, which is significant at a significance level of 5%. The results of the Hausman test shows that the

<sup>1</sup>The 24 countries are: Mongolia, Singapore, Malaysia, Indonesia, Thailand, Laos, Cambodia, Vietnam, Philippines, Turkey, Saudi Arabia, Yemen, United Arab Emirates, Egypt, India, Bengal, Sri Lanka, Kazakhstan, Uzbekistan, Kyrgyzstan, Russia, Ukraine, Romania, Pakistan.

model is suitable for fixed-effect regression methods.

In order to avoid the existence of severe multicollinearity among the variables and affect the significance level of the estimated coefficients, a multicollinearity test was performed on the model variables. The results are shown in Table 1. The results show that the value of variance inflation factor (VIF) of each variable is less than 10, so there is no serious multicollinearity among the variables.

Table1 VIF test results

Variables	VIF
GOV	2.28
BF	1.46
IF	1.44
lnGDP	3.17
lnEX	4.17
lnIM	2.73

In order to ensure the validity of the parameter estimation, a Modified Wald test is performed on the model to determine whether the model has heteroscedasticity. The P value of the test result is 0.000, indicating that the model has heteroscedasticity. In order to eliminate heteroscedasticity, this article uses weighted least squares for regression method. The regression results are shown in Table 2.

Table2 Model estimation results

Variables	Model results
GOV	0.928* (0.515)
BF	2.720*** (0.807)
IF	1.284* (0.749)
lnGDP	0.579 (0.379)
lnEX	1.259*** (0.206)
lnIM	-0.015 (0.130)
Adjusted R <sup>2</sup>	0.681
Observations	384

Notes: Values in parentheses are standard errors. \*\*\*, \*\* and \* denote significance at the 1%,5% and 10% levels, respectively.

According to Table 2, it can be seen that the political environment has a significant impact on China's direct investment in countries along "the Belt and Road". If the host country's political environment is unstable, it will have a significant impact on the country's economic policy, which will cause significant uncertainty in the transactions and operations of Chinese enterprises' outward foreign direct investment. Therefore, the good political environment of the host country is the basis for Chinese enterprises to invest and operate in the host country. Chinese enterprises tend to invest in countries along "the Belt and Road" with better political environment.

In addition, the business environment has a significant positive impact on China's outward foreign direct investment in the countries along "the Belt and Road". Chinese enterprises' outward foreign direct investment must carry out business activities in the host country. The business environment is an aspect which must be considered. A good business environment can reduce business transaction costs and improve business efficiency. Chinese enterprises tend to invest in countries along "the Belt and Road" with better business environment.

At the same time, the investment environment has a significant impact on China's outward foreign direct investment in the countries along "the Belt and Road", which shows that China's direct investment in the countries along "the Belt and Road" pay particular attention to the investment environment of the host country. The better the investment environment of the host country is, the easier it is for foreign capital to flow into the country. Chinese enterprises' investment efficiency in host countries will also increase [9]. So good investment environment is more conducive to attracting China's outward foreign direct investment.

In addition, China's exports to host countries have a significant positive impact on China's outward foreign direct investment. The export trade between Chinese enterprises and the host country will generate a large amount of trade profits, which will prompt some Chinese enterprises to invest abroad and directly use local resources for specialized production of products. However, the market size of the host country does not have a significant positive impact on the outward foreign direct investment of Chinese enterprises. This phenomenon may be due to the fact that State-owned enterprises are the main participants of China's outward foreign direct investment and are greatly affected by "the Belt and Road" initiative. They are less sensitive to the market size of the host country.

## 5. Conclusion

This paper analyzes the impact of political environment, business environment and investment environment on the location choice of China's direct investment in countries along "the Belt and Road" through panel data regression. And the following conclusions are obtained: The political environment has a significant impact on China's direct investment in the countries along "the Belt and Road". Good political environment of the host country is the basis for Chinese enterprises to invest and operate in the host country. What's more, the business environment has a significant positive impact on China's direct investment in the countries along "the Belt and Road". Chinese enterprises are more inclined to invest in countries with a better business environment. In addition, China's direct investment in the countries along "the Belt and Road" also attaches great importance to the investment environment. The investment environment of the host country will determine whether Chinese enterprises can invest in host countries and affect the efficiency of enterprises' investment and operations.

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