Research on the Impact of Host Country Environmental Eegulations on China's OFDI under Different Investmet Motivations——Empirical Research based on Panel Data of Asian Countries

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Abstract：This paper takes the panel data of China's OFDI in 28 Asian countries from 2008 to 2019 as a sample to empirically verify the impact of host country environmental regulations on OFDI under different investment motivations from a macro perspective. The empirical results show that: (1) China has obvious market seeking motivation, natural resources seeking motivation, and efficiency-seeking motivation for OFDI of Asian countries; (2) The host country's environmental regulations have a significant inhibitory effect on China's natural resource-seeking and efficiency-seeking OFDI in Asian countries, and have a significant promotion effect on innovative asset-seeking OFDI, but have little impact on market-seeking OFDI; (3) In the long run, the impact of host country's environmental regulations on China's OFDI shows a significant U-shaped relationship.

Keywords：Environmental regulation; investment motivation; foreign direct investment; Asian countries

1. Introduction

Countries in the world are more and more aware of the importance of environmental protection, environmental regulation measures are becoming more and more strict. Asian countries also face serious environmental challenges. However, due to the different environmental problems and economic development stages in Asian countries, the level of environmental regulation in Asian countries is also different. In the process of direct investment in Asian countries, China will face different degrees and forms of environmental regulation constraints. Under the current anti-globalization background, it is urgent and of important practical significance to discuss the investment motivation, OFDI, and its relationship with environmental regulation from the perspective of an open economy, and to study how China can achieve high-quality OFDI and achieve win-win progress of ecological environmental protection and economic development.

When examining the impact of environmental regulations on OFDI, most domestic literature examines the impact of China's (home country) environmental regulations on China's OFDI (Li Xiaoyong, 2019; Yin Fexiao and Zhu Yingming, 2017). Qiu Qiang et al. (2018) took China's OFDI of 17 countries in the Asia-Pacific region as a sample and pointed out that environmental regulations in Asia-pacific countries had a negative impact on China's OFDI. Pei Yu and Ge Peng (2019) believe that the impact of environmental regulations in American states on China's OFDI is regulated by the threshold effect of economic development level, human capital, technology level, and other factors, and there is a nonlinear relationship. Existing literatures have different conclusions on the impact of environmental regulations on OFDI, and few literatures distinguish from the perspective of investment drivers to explore the impact of environmental regulations on OFDI driven by different investment drivers. Wu Jianzu and Zheng Qiuxian (2020) divide investment drivers into natural resource seeking type and market seeking type and point out that the environmental regulations of host countries have different influences on different investment drivers of China's OFDI.

As for the selection of research objects for China's OFDI host countries, most of the samples focus on countries along the Belt and Road. As can be seen from the Bulletin of China's OFDI 2019, China's OFDI is concentrated in Asian countries/regions, and it is of practical significance to take Asian countries/regions as research objects.

2. The current situation of China's direct investment in Asia and the environmental regulation level of Asian countries

2.1 Status quo of China's direct investment in Asia

From the perspective of intercontinental layout (Figure 1), Asia is still the main position of China's OFDI, with investment flowing to Asia accounting for 80.9% of OFDI flows in 2019. The total and scale of China's investment in Asia exceed that of all other continents combined.
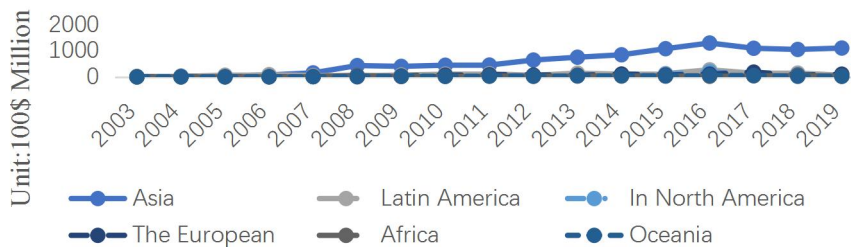

Figure 1 2003-2019 Intercontinental distribution of China's OFDI
Data source: Statistical Bulletin of China's OFDI over the years

From the perspective of OFDI's flow economies, China's investment in Asia is not evenly distributed, and most of the investment flows to Hong Kong, Singapore, Indonesia, Laos, Malaysia, etc. Although China's OFDI activities have expanded to a global scale, its important investment and operation activities are still targeted at several key economies.

2.2 Status quo of environmental regulation in Asian countries

This paper uses data on the stringency and enforcement of national/regional environmental laws contained in the Global Competitiveness Report published by the World Economic Forum (Figures 2 and 3). Based on the results of the world economic forum's Executive Opinion Survey, countries are scored on two aspects :(1) the stringencies of their environmental regulations (SER); (2) How strictly these laws are enforced (EER). Among them, Oman, Singapore, Japan, and the United Arab Emirates scored more than 5 points in both the intensity of environmental regulations and the severity of their enforcement, higher than the average level of Asian countries. Developing countries, such as Cambodia, Lebanon, Mongolia, and Vietnam, scored very low in the intensity of environmental laws and regulations and the severity of their implementation, and the overall level of environmental regulations was far lower than other countries. The intensity of environmental laws and regulations in China is lower than that in developed countries, especially the enforcement of environmental laws and regulations.

Figure2 2019 Strict intensity of environmental regulations in Asian economies
Source: World Economic Forum, global Competitiveness Report 2019

Figure 3 2019 Intensity of implementation of environmental laws and regulations in Asian economies
Source: World Economic Forum, global Competitiveness Report 2019

3. Empirical analysis of the impact of host country's environmental regulations on China's OFDI

3.1 Research Design

3.1.1 Model setting

Based on previous scholars' studies on the relationship between environmental regulation and OFDI and the motivation of OFDI in the home country [1-8], this paper establishes a model at the national level to empirically study the impact of environmental regulation in the host country on China's OFDI:

$$\ln \text{OFDI}_{i,t} = \beta_0 + \beta_1 \text{SEER}_{i,t} + \sum_{j=1}^{6} \alpha_j \, \text{control}_{i,t} + \varepsilon_{it} \tag{1}$$

Where I represent the host country, T represents the year, β_0 represents the constant term, ε_{it} represents the residual term. $\ln \text{OFDI}_{i,t}$ represents OFDI flow of China to the host country I in period T; $\text{SEER}_{i,t}$ is the core explanatory variable, representing the environmental regulation level of host country I in period T; control represents the group of control variables, including some economic and social variables that may have an impact on China's OFDI. β and α are parameters to be estimated.

(1) Static panel model

Based on (5.1), four investment driver variables, including the market size of host country, natural resource endowment, innovative assets and efficiency, and their interaction terms with environmental regulations are introduced to investigate the impact of investment driver variables on OFDI and how environmental regulations further influence OFDI through influencing investment driver variables.

$$\ln\text{OFDI}_{i,t} = \beta_0 + \beta_1\text{SEER}_{i,t} + \beta_2\text{MSIZE}_{i,t} + \beta_3\text{NRE}_{i,t} + \beta_4\text{TECHR}_{i,t} + \beta_5\text{EF}_{i,t} + \beta_6\big(\text{SEER}_{i,t} \times \text{MSIZE}_{i,t}\big) + \beta_7\big(\text{SEER}_{i,t} \times \text{NRE}_{i,t}\big) + \beta_8\big(\text{SEER}_{i,t} \times \text{TECHR}_{i,t}\big) + \beta_9\big(\text{SEER}_{i,t} \times \text{EF}_{i,t}\big) + \sum_{j=1}^{6} \alpha_j \, \text{control}_{i,t} + \varepsilon_{it} \qquad (2)$$

Where, $\text{MSIZE}_{i,t}$ represents the market size of host country I in period T; $\text{NRE}_{i,t}$ represents the natural resource endowment of host country I in period T; $\text{TECHR}_{i,t}$ indicates the technical level of host country I in period T; $\text{EF}_{i,t}$ represents the efficiency level of host country I in period T. Other variables have the preceding meanings.

(2) Dynamic panel model

According to the "Porter hypothesis", the quadratic term of environmental regulation is introduced considering the possible nonlinear influence of environmental regulation on OFDI. According to certain economic principles, OFDI is in a dynamic process, so there is the lag effect. By incorporating the lag phase of the dependent variable into the right side of the equation and introducing the dynamic panel model, the model can be more consistent with the actual situation. Thus, the model is constructed:

$$\ln\text{OFDI}_{i,t} = \beta_0 + \beta_1\ln\text{OFDI}_{i,t-1} + \beta_2\text{SEER}_{i,t} + \beta_3\text{SEER}_{i,t}{}^2 + \beta_4\text{MSIZE}_{i,t} + \beta_5\text{NRE}_{i,t} + \beta_6\text{TECHR}_{i,t} + \beta_7\text{EF}_{i,t} + \sum_{j=1}^{6} \alpha_j \, \text{control}_{i,t} + \varepsilon_{it} \qquad (3)$$

Where, $\ln\text{OFDI}_{i,t-1}$ is the first-order lag term of the explained variable, and $\text{SEER}_{i,t}{}^2$ is the quadratic term of the core explanatory variable, environmental regulation. Other variables have the preceding meanings.

3.1.2 Variable description and data sources

Variables were selected based on previous studies [6-15]. Limited by data availability, 28 countries/regions in Asia were selected as research samples.

(1) Explained variables

OFDI flow (lnOFDI). This paper chooses OFDI flow to measure China's investment in Asian countries. Since China's OFDI data is zero or negative in some countries or years, to ensure the validity of data information, this paper performs logarithmic processing on OFDI flow according to the formula $\ln\text{OFDI} = \ln\big(\text{flow} + \sqrt{\text{flow}^2 + 1}\big)$. OFDI flow data comes from the Statistical Bulletin of China's outward direct investment, which is calculated in current DOLLARS.

(2) Core explanatory variables

Environmental Regulation (SEER). Scholars believe that a country needs both laws and regulations as the basis and certain law enforcement so that the overall level of environmental regulations can be higher. There is an internal interaction between these two dimensions: strict environmental regulations need a higher law enforcement level to be meaningful. According to Itzhak (2020), the two indicators of environmental regulations (the severity of environmental regulations and the severity of law enforcement) are highly correlated (correlation coefficient is 0.97) and introducing both into regression at the same time will lead to serious multicollinearity. To solve this problem, this paper adopts two methods: First, this paper followed the methods of Itzhak (2020), Kellenberg (2009), Manderson and Kneller (2012) to multiply the values of the two indicators. To obtain environmental regulation variable SEER (Stringency and Enforcement of environmental regulation), which reflects both the Stringency and enforcement of environmental regulations, $\text{SEER} = \frac{1}{7}\text{SER} \times \text{EER}$, and the range of the variable is 0.14-7. Secondly, SER and EER will be used as surrogate variables for robustness test. In general, the results in this paper remain robust in both methods.

(3) Adjustment variables

Referring to previous literature, to investigate the different impacts of environmental regulation on OFDI driven by different investment drivers, investment driver variables are introduced and the interaction terms between environmental regulation and different investment drivers are set in the model. The specific variables are as follows:

① The market size of the host country (MSIZE). The GDP of the host country is used to measure the market size and economic development state of the host country, and the natural logarithm is taken.

② Natural resource endowment of the host country (NRE). Natural resource endowments are measured using gross natural resource rents (the sum of oil, gas, coal, mineral capital, and forest rents as a percentage of GDP).

③ Host country innovative Assets (TECHR). Technology Readiness in the Global Competitiveness Report is used to measure the host country's Technology stock.

④ Host country efficiency (EF). Due to the lack of wage data in sample countries, especially in developing countries, and considering the different population structure and aging degree of each country, the output of unit labor input of a country or region is adopted to measure, that is, GDP/ employed labor force, and the logarithm is taken.

(4) Control variables

Based on previous studies on influencing factors of China's OFDI, the following control variables are selected from the perspective of the host country and the differences or connections between the host country and the home country:

① Bilateral geographical distance (DIST). Bilateral geographical distance usually represents different information costs in OFDI studies. Long geographical distance means high transportation costs and communication costs (i.e., enterprises must obtain investment information at a higher cost). In this paper, "bilateral distance cost" is used to represent bilateral geographical distance by the product of bilateral distance and international oil price. The bilateral distance is measured by "weighted distance", and the international oil price is measured by the average weighted international oil price.

②Host country inflation rate (INFL). The volatility and unpredictability of the inflation rate in the host country will cause uncertainty in pricing and profit expectations of enterprises, which is not conducive to long-term planning of enterprises and will ultimately hinder foreign direct investment seeking the market (Buckley et al., 2009). High inflation may also lead to devaluation of the host country's own currency, reducing the real value of market-seeking OFDI's domestic currency earnings in the home country. This paper uses the annual rate of change of the consumer price index (CPI) to measure.

③ Bilateral exchange rate (EXCHR). Exchange rate changes will affect China's direct investment in Asia by affecting the costs and benefits of OFDI. In this paper, the ratio of the average exchange rate of the host country's currency against the US dollar and the average exchange rate of RMB against the US dollar is adopted to measure the bilateral exchange rate.

④ System quality (INSQ). To realize China's OFDI driven by different motivations, both traditional economic factors and institutional factors should be considered. It is generally believed that there may be a positive correlation between the institutional quality of the host country and China's OFDI. In this paper, the World Bank Global Governance Index is used to measure corruption control, government efficiency, government stability and anti-violence, quality of governance, rule of law, freedom of expression, and government accountability in Asian countries, and the weighted average is taken.

⑤ Infrastructure (INFRA). Infrastructure, including transportation networks and information and communication means, has become an important factor influencing OFDI. Better infrastructure in host countries may influence the decision of means in their home countries in terms of expected

costs for OFDI. This paper uses world Bank data on host country air traffic, i.e., all scheduled (international and domestic) traffic carried out by air carriers registered in one country/territory.

⑥ Trade openness. The more open a country is to trade, the more likely it is to become the host country of OFDI. In this paper, the total import and export volume of goods and services /GDP of the host country is used to measure the trade openness of a country.

The data sources of each variable and the expected positive and negative signs of regression coefficients are summarized in Table 1.

Table 1 Data sources and symbol expectations for each variable

variable	abbreviations	Index content	The data source	The positive and negative sign expectation of regression coefficients
Environmental regulation	SEER	The strictness of environmental regulations and their enforcement: $SEER = \frac{1}{7} SER \times EER$	World Economic Forum (WEF)	negative
Market size of host country	MSIZE	Take the logarithm of the GDP of the host country	United Nations Database of national accounts	is
Natural resource endowment of host country	NRE	Gross natural resource rents	World Bank Development Indicators Database	is
Innovative assets of host country	TECHR	National technology stock	World Economic Forum (WEF)	is
Host country efficiency	EF	The output per unit of labor input of a country/region is logarithm	World Bank Development Indicators Database	negative
Bilateral geographical distance	DIST	Bilateral distance cost, take the logarithm	CEPII GeoDist database	negative
Inflation rate in host country	INFL	The annual rate of change of consumer price index	World Economic Forum (WEF)	negative
Bilateral exchange rate	BEXCH	Average exchange rate of the host country's currency against the US dollar/average exchange rate of RMB against the US dollar during the period	World Bank Global Economic Monitoring Database (GEM)	is
Host country institutional quality	INSQ	Corruption control, Government efficiency, government stability and anti-violence, quality of management, rule of law, freedom of speech and government accountability	World Bank Database of Global Governance Indicators	is
Infrastructure level	INFRA	The logarithm of all scheduled (international and domestic) traffic carried by registered air carriers in one country	World Bank Development Indicators Database	is
Trade openness	OPEN	Total imports and exports of goods and services of the host country /GDP	World Bank Database of national accounts	is

3.2 Static panel empirical test and results

Need to point out that the empirical regression before, in this paper, the OFDI traffic cost, the host country, host country's GDP, bilateral distance resident and non-resident patent application number, the host country air transport data such as variables (except the data on virtual variable type and the ratio of other variable data) are the logarithmic processing, to reduce the influence of data heteroscedasticity; Correlation coefficient method and variance inflation factor method were used to test the multicollinearity of each explanatory variable in the model. It shows that there is no serious multicollinearity. The Hausman test of fixed effects and random effects was conducted, and the test results showed that the P value was 0.1039, so the null hypothesis could not be rejected, so the random-effects model was used.

3.2.1 Baseline regression results

Baseline regression shows that :(1) in the short term, the host country's environmental regulation has a significant inhibitory effect on China's OFDI in Asian countries, which is basically consistent with previous theoretical expectations; (2) There is a significant positive correlation between the market size of the host country and China's OFDI, which verifies the existence of the motivation of China's OFDI market. (3) There is a significant positive correlation between the host country's natural resource endowment and China's OFDI, indicating that China's OFDI in Asian countries has a natural resource seeking motivation; (4) the efficiency of the host country and China's OFDI has significant negative correlation relationship, this suggests that higher labor costs for the host country Asian economies of China's OFDI play a deterrent effect, the fact that China still has some cheap Labor to provide a reasonable explanation for the results, proves that Chinese enterprise's OFDI activities conform to the principle of profit maximization, Similarly, this result also indicates that China's OFDI has efficiency-seeking motivation; (5) The technology stock level of the host country has no significant impact on China's OFDI. One of the reasons may be that with the continuous improvement of domestic R&D level in recent years, enterprises' investment motivation to seek innovative assets in overseas markets has weakened and they turn to the domestic market.

Among the control variables :(1) the bilateral distance cost is significantly negatively correlated with OFDI, indicating that the closer the bilateral geographical distance between the two countries is, the smaller the cost and obstacle of investment activities will be, and the more favorable it is for China to carry out OFDI. (2) inflation coefficient significantly negative, indicating inflation of the country is not attractive to Chinese investors, one of the reasons maybe with the deepening of market-oriented reform, the continuous development, and improvement of China's market system, enterprise risk consciousness enhancement, conditions of multinational enterprise investment decision-making for the host country economic instability of tolerance; (3) There is a significant positive correlation between the institutional quality of the host country and China's OFDI. Chinese enterprises no longer simply pursue the lower cost of capital enjoyed by the imperfect capital market of the host country, which also conforms to the principle of corporate profit maximization. (4) There is a significant positive correlation between the infrastructure level of the host country and China's OFDI, which indicates that the improvement of infrastructure quality has a significant promoting effect on the development of agglomeration economy; (5) The degree of foreign trade openness has a significant positive impact, indicating that OFDI in China tends to flow to export-oriented economies. It also means that OFDI in China has been used to serve other foreign markets. This could also explain the prominence of China's OFDI market as a driver.

From the perspective of the moderating effect: (1) there is no statistically significant correlation between the interaction term between the market size of the host country and environmental regulation and China's OFDI, indicating that the market motivation of China's OFDI is not affected by the level of environmental regulation of the host country, or has a small impact. This may be because most of the selected sample countries are developing countries, which have a low level of market development and consumption level and have little demand for environment-friendly green products. Enterprises have little motivation to upgrade green products driven by environmental

regulations. (2) There is a significant negative correlation between the interaction term of natural resources and environmental regulation in the host country, indicating that the impact of environmental regulation on OFDI is intrinsically related to the motivation of OFDI's natural resource seeking, that is, the environmental regulation in the host country weakens China's motivation of seeking natural resources for OFDI in Asian countries. (3) There is a significant positive correlation between the interaction term of the host country's innovative assets and environmental regulation and China's OFDI. This means that China's innovative asset-seeking FDI is positively influenced by the environmental laws and regulations of the host country. Because of the country with a high level of environmental regulation mostly in the country with advanced technology and rich innovation assets. Most of China's innovative asset-seeking OFDI has gone to developed countries in Asia. In addition, developed countries will attract China's innovative asset-seeking OFDI with a higher level of environmental regulation and a higher level of protection for FOREIGN direct investment and a more perfect entrepreneurial incentive mechanism. (4) There is a significant positive correlation between the interaction term of labor cost and environmental regulation in host countries and China's OFDI. Since the host country's environmental regulation and labor cost have both negative effects on China's OFDI, the result of the moderating effect is significantly positive, which means that the environmental regulation amplifies the negative effect of the host country's labor cost on China's OFDI. The possible reason is that China's OFDI has efficiency seeking-motivation. One of the goals of OFDI driven by efficiency is to pursue low investment costs in the host country (due to the relatively low price of traditional production factors such as labor and capital in the host country or the imperfect institutional environment). However, in the short term, the compliance cost brought by environmental regulation directly increases the investment cost burden of Chinese enterprises. OFDI, which is sensitive to labor cost, is also more susceptible to the cost brought by environmental regulation, which proves that environmental regulation has a negative impact on efficiency-seeking OFDI.

3.2.2 Robustness test

In this paper, the robustness test was conducted by replacing core explanatory variables and investment motivation variables [2,6, 16-19].

(1) Replace core explanatory variables. In the robustness test, SER (stringency of environmental regulations) and EER (implementation of environmental regulations) in the Global Competitiveness Report released by the World Economic Forum (WEF) were used for the robustness test.

(2) Replace investment motivation variables. In the robustness test, the market size variable (GDPrate) uses the GDP growth rate of the host country to measure the market potential of the host country. Natural resource endowment (NRE2) is used to measure the abundance of natural resources of the host country by the proportion of mineral and metal resources exports in the total exports of the host country. Innovation Asset (TECHP) selects the number of patent applications from residents and non-residents of host countries as technological innovation index. Host country Efficiency (EF2) introduced the "degree to which wages are related to productivity" indicator [Survey questions related to the construction of this indicator were: The answers range from 1 (not at all) to 7 (very much). The "degree to which wages are related to productivity" index was constructed based on the extent to which wages are related to labor productivity in the respondent's country, ranging from 1 (wages have nothing to do with labor productivity) to 7 (wages are closely related to labor productivity).] (The extent to which pay is related to productivity), a measure of the overall competitiveness of each country's unit Labor costs. In principle, enterprises should prefer to invest in countries where labor cost is related to labor productivity rather than the opposite. However, according to existing literature, there are few empirical studies using this variable, so the research conclusion of this paper will provide more support for relevant studies. Empirical results using the index by Amighini and Franco (2013) show that companies may be attracted to countries with more efficient labor market environments, rather than simply to lower costs. That is, to seek the overall efficiency of the labor market in the host country rather than simply seeking low labor costs. Data are collected from the United Nations National Account Database, WTO Trade

Statistics Database, World Intellectual Property Organization, World Bank Development Indicators Database, Global Competitiveness Report, etc.

The regression results of the robustness test show that the coefficient sign and significance of the GDP growth rate of the host country are not robust, which indicates that the market potential of the host country has no significant impact on China's OFDI. The index of "the degree of correlation between wages and productivity" is positively correlated with China's OFDI at the level of 10%, which is consistent with the experimental results in the benchmark regression, that is, China's OFDI has efficiency-seeking motivation; The regression results of other variables are basically consistent with the baseline regression results, which verifies the robustness of the empirical results in this paper.

3.3 Dynamic panel empirical test and result analysis

In this paper, it is reasonable to believe that environmental regulation has a certain lag effect on OFDI, so the setting of the dynamic panel model includes the lag term of explained variables [20] and the quadratic term of core explanatory variables.

The test results show that the first-order lag term of the explained variable (OFDI flow) in each model is significantly positive, and the early OFDI level has a significant positive impact on the late OFDI. This indicates that China's OFDI is in the process of dynamic development and change with continuity, so the dynamic panel data model in this paper is reasonable. The primary term coefficient of environmental regulation is still significantly negative, while the secondary term coefficient is significantly positive, indicating that the impact of the host country's environmental regulation on China's OFDI is u-shaped. It verifies the existence of the "innovation compensation effect" of China's direct investment in Asian countries. At the initial stage, the environmental regulations in the host country significantly inhibited China's OFDI. However, with the enhancement of the level of environmental regulations in the host country and reaching a certain level, the environmental regulations would have a positive impact on the development of China's OFDI.

The empirical results of the influence of different investment drivers on China's OFDI are basically consistent with the results of benchmark regression. For the control variables, although all the control variables are consistent with the expected and baseline regression results, the significance level of each variable has decreased. In particular, the influence of the degree of opening of the host country on China's OFDI is no longer significant. This may be influenced by the significant effect of the first-order lag term of OFDI flow on OFDI. At the same time, the introduction of lag term and the use of the GMM estimation method shorten the time series, which reduces the overall sample size and exerts a certain influence on the regression results.

4.   Policy Implications

Under the background of various international climate change summits, the problems caused by additional regulation and the tax burden of environmental regulations are becoming reality and attracting widespread attention, which brings new challenges and opportunities for national economic competitiveness. In view of this, this paper puts forward the following policy suggestions based on the empirical research conclusions and China's actual development situation.

First, OFDI driven by different investment drivers have different response degrees to environmental regulations. Although strict environmental regulations have a restraining effect on OFDI with natural resource motivation and efficiency motivation, the empirical results also show that strict environmental regulations will not drive out OFDI with market motivation. It can even promote THE OFDI of innovative assets. Therefore:

(1) For the managers of Chinese multinational enterprises, when carrying out OFDI, enterprises should make location selection according to their own industry types and motivations for carrying out OFDI. Due to China's direct investment in Asia significantly driven by different investment

motivations in the process of conducting OFDI to raise their policies, laws, and regulations in different countries in Asia reading ability, attaches great importance to the different countries as a host country for the different demands of environmental regulation, and every country on the different industries of different environmental regulation standard, So that enterprises can make investment decisions in the host country of environmental regulation policies with their own investment motivation, development direction, and improve the overall competitiveness of enterprises in the host country.

(2) The government should improve the policy framework for Chinese enterprises to conduct OFDI, strengthen the top-level design of investment facilitation, comprehensively improve the level of trade and investment liberalization and facilitation, provide different information for China's OFDI driven by different drivers in terms of investment countries and specific industries, and conduct differentiated guidance. For example, by virtue of modern information means, the government has set up an information platform for Asian countries' environmental regulations, classifying and summarizing the latest information on environmental regulations in different countries and industries, so that enterprises can learn about the latest requirements in a timely manner, formulate strategies and take actions after systematic analysis, and help enterprises go global smoothly.

Second, from a long-term and dynamic perspective, moderate environmental regulation intensity in host countries can eventually produce an "innovation compensation effect" by promoting technology and product upgrading. Therefore, the Chinese government can draw on relevant experience when facing the domestic enterprise investment and the foreign enterprise enters China's FDI:

(1) The government should adopt diversified environmental regulation measures according to the development characteristics of China's economic transformation, and scientifically enhance the intensity of China's environmental regulation. Specifically, the government should adjust the intensity of environmental regulation following the development level of green technology in different industries. In addition, the government should carry out the step-by-step environmental regulation mechanism to minimize the negative impact of environmental regulation on enterprises. It can not only effectively improve China's ecological environment, but also fully stimulate the production and creativity of enterprises, improve the competitiveness of enterprises, and promote green production.

(2) In the long-term process of economic transformation, the government should accelerate the construction of innovation incentive mechanisms and innovation ecosystem, improve laws and regulations related to intellectual property protection, enable enterprises to enhance creativity in a diverse and inclusive environment, and promote technological R&D and product upgrading. At the same time, we need to give full play to the role of the National Green Development Fund, which is dedicated to supporting green industrial transformation and upgrading, to provide support for environment-friendly technological innovation, and encourage enterprises to research and develop green technologies. Moreover, environmental regulations are taken as the entry threshold to attract investment, to attract more enterprises with advanced clean production technology and pollution control technology to invest in China, to promote the green development of China's technology and industrial system through the technology spillover effect.

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