

# International Students, Cultural Distance and Foreign Direct Investments of Chinese Enterprises—From the Perspective of African Countries

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## Abstract

Educational globalization is a new feature of the development of economic globalization. With the rapid growth of economic globalization, educational globalization has become irreversible, and educational exchanges and cooperation among countries worldwide are becoming more and more frequent. Since 2000, with the Chinese government's "going global" strategy and the successful holding of the "China Africa Cooperation Forum" many times, the African student program in China has become an essential link in China-Africa economic and trade cooperation. Taking the micro-data of direct investment of 1586 Chinese enterprises in 43 African countries from 2003 to 2014 as the research sample, this paper empirically tests the impact of international students in China on Chinese enterprises' direct investment in Africa. The empirical analysis results show that the number of international students in China significantly promotes Chinese enterprises' direct investment in African countries, and cultural distance has a negative regulatory effect on the relationship between international students in China and Chinese enterprises' direct investment in Africa, that is, cultural space weakens the promotion of international students in China to OFDI. The results of heterogeneity analysis show that compared with African countries in the high-income and low resource endowment groups, the impact of international students in China on OFDI in low-income and high resource endowment countries is more prominent.

## Keywords

International Students in China, Cultural Distance, Chinese Enterprises, Foreign Direct Investment, African Country

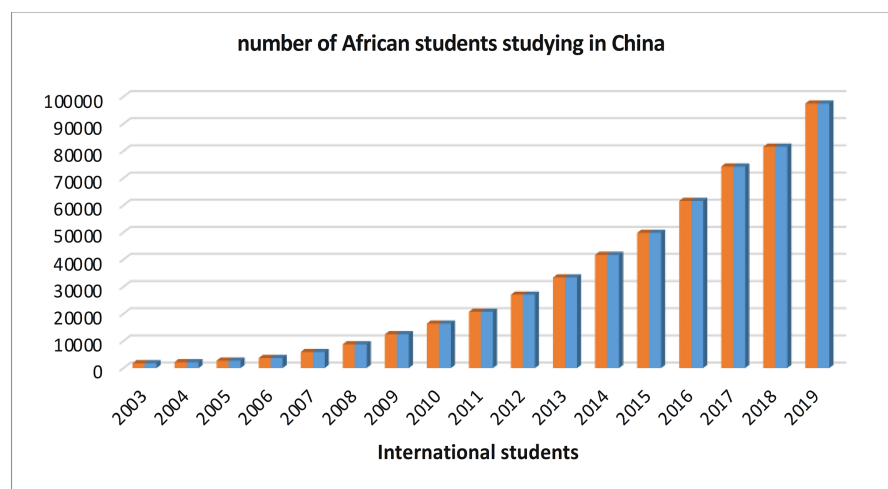
## 1. Introduction

Since the end of 2019, the sudden outbreak of COVID-19 has thrown a fatal blow to global economic development and transnational investment activities. According to the IMF (International Monetary Fund), the global economic growth rate in 2020 was only  $-4.4\%$ . 2 years after the novel coronavirus pneumonia outbreak, the world economy recovered. However, the multilateral trading system has been seriously challenged by Trump to the Biden administration. Trade protectionism is prevailing, and populism in various countries is also impeding the global economy and trade, which puts the global economic recovery at a severe test—in this case, facing the downward pressure on the economy caused by a series of challenges at home and abroad, such as economic growth slowdown, international trade friction, and an aging population. Based on the motive of ensuring stable economic and social development, epidemic prevention, and control, through the new development concept of the 14th five-year plan and the long-range objectives through the year 2035, the Chinese government points out that it is necessary to accelerate the construction of a new development pattern with the big domestic cycle as the main body and the domestic and international double processes promoting each other, to promote high-quality development of the economy. The Belt and Road Initiative (BRI) and different strategies should be strengthened to sustain economic and trade exchanges, actively optimize investment structure, comprehensively enhance the level of opening up, and strive to build up domestic career and expand foreign business. In the current international political and economic environment, the recovery of economic and trade exchanges between countries is significant to global economic growth and political stability.

Foreign direct investment is an essential driver for China to develop the global economy and an important way of promoting bilateral economic exchanges between China and Africa. However, at present, the international political and economic game has intensified, and developed economies such as Europe and the United States have issued stringent investment restriction policies and measures for national security and environmental protection, which has led to the continuous fermentation and upgrading of international investment protectionism and curbed the development of China's inverse gradient foreign direct investment to developed economies, China one belt, one road has become a significant link between China and Africa through technology and capital export. With the development of China's "one belt and one road initiative" and the China-Africa Cooperation Forum, African countries have gradually become a vital location choice for Chinese enterprises to invest abroad. Therefore, further strengthening the direct investment of Chinese enterprises in African countries is of great significance to the smooth implementation of China-Africa strategic cooperation.

Economic globalization and the continuous development of China-Africa economic and trade cooperation have made significant development and opportunities for Chinese enterprises making foreign direct investments in the African market. However, African countries' huge ethnic, linguistic, and cultural differences have in-

creased investment risks. At the same time, they have expanded the investment pressure faced by Chinese enterprises, failing many Chinese enterprises in direct investment in Africa. One of the crucial ways to reduce the investment risk caused by cultural distance is attracting and exporting international students. In recent years, China has continuously implemented new policies to attract international students and regarded the education projects of international students as an important way to revitalize the nation, spread culture and win the initiative of the global economy. The 14th five-year plan and the long-term goal for 2035 point out that we should cultivate, introduce and make good use of talents in an all-around way, and implement a more open talent policy. Cultivating African students can make up for the weakness of market mechanisms, overcome cultural differences and overcome non-tariff barriers such as information asymmetry, and enable all kinds of talents needed in the international market. According to the concise statistics of international students in China on the Ministry of Education website, the total number of African students in China in 1999 was only 1136, reaching 1388 in 2000, accounting for 2.66% of the total number of international students. In 2018, the number of African Chinese students reached 81562, accounting for 16.57% of the total international students. In 2019, the number of African students studying in China reached 97442, increasing by 15880 compared with 2018 (see **Figure 1**). It can be seen that the gradual deepening of China-Africa economic and trade cooperation and the continuous growth of the number of African students make it necessary for us to think more deeply about the impact of China-Africa educational exchanges and cooperation on the direct investment of Chinese enterprises in African countries.



Data source: Concise statistics of international students in China on the website of the Ministry of Education of China.

**Figure 1.** The number of African students studying in China from 2003 to 2019 (unit: person).

## 2. Literature Review

The literature closely related to this paper mainly discusses the relationship between

international students, overseas immigration networks, cultural distance, and foreign direct investments. Firstly, scholars' research generally proves that international students can promote the development of the foreign direct investment. For example, Wang (2017) believes that education and cultural exchanges and cooperation between China and other countries help expand the development of foreign direct investments (OFDI) and foreign trade. Using the gravity model, Yue (2018) found that educational cooperation between China and countries along the "Belt and Road" can contribute to the development of OFDI in China. The empirical test results of Zhu (2019) show that the scholarship policy provided by the Chinese government does not promote China's foreign direct investment. However, the scale of international students in China promotes the development of China's FDI, and there are regional differences. Chen et al. (2019), using panel data of 29 provinces and municipalities in China's Mainland, observed a substitution effect with export scale and pay level, which means that luring international students can counteract the negative impact of low salaries and insufficient export scale. On regional OFDI (Outward Foreign Direct Investment), Liu and Song (2021) believe that with every 1% increase in the number of students from countries along the Belt and Road, the scale of China's foreign direct investment will also increase by 0.645%, which is mirrored in cultural recognition and talent accumulation. This promotion effect is reflected in cultural identity, talent accumulation, and several factors. The role of Chinese capital in foreign direct investment is 0.645%. Zhao et al. (2021), through the GMM estimation method, found that the scale and quality of international students in China significantly promoted China's direct investment in Africa. While China's Government Scholarship policy and the institutional quality of African host countries have a positive regulatory effect, the results of heterogeneity analysis show that the impact of international students in China on China's direct investment in Africa leads to the characteristics of travel alienation in terms of resource endowment, technology level, and demand structure. The above impact is more significant for African countries with a lack of resources, low technology level, and common difference in demand structure with China.

Secondly, it studies the relationship between overseas Chinese immigration networks and foreign direct investment (OFDI). Anwar and Mughal (2013), taking Indian immigration data as the research sample, saw that overseas immigrants promoted India's direct investment in developed countries. Buch et al. (2006) believe that the number of immigrants will positively impact FDI development. Kugler and Rapoport (2007) concluded a positive relationship between the development of the Immigration Network and foreign direct investment (OFDI). Baghdadi and Chep-tea (2010) found that by promoting the dissemination of business information, immigration networks help to strengthen investment exchanges between host countries and immigrants' countries of origin. De Simone and Manchin (2012) took the immigration data of EU countries as the research sample and found an apparent complementary relationship between immigration and FDI. Gao (2003) took the gravity model as an empirical research method and found that overseas Chinese

networks play an essential role in developing China's foreign direct investment (OFDI).

Finally, it is the impact of the cultural distance of the investing country and the host country on the enterprise. [Treviño et al. \(1998\)](#) believe that the greater the cultural distance, the less the US foreign direct investment in the country. [Flores and Aguilera \(2007\)](#) found through empirical research that cultural distance weakens the role of the United States in promoting foreign direct investment (OFDI) in 47 host countries. According to the research of [Bhardwaj et al. \(2007\)](#), cultural distance helps strengthen mutual trust between host countries and investing countries, avoid uncertain risks, and promote foreign direct investments between investing countries and host countries. Lopez obtained the research results. [López-Duarte and Vidal-Suárez \(2010\)](#) believe that a common language can significantly promote the development of bilateral foreign direct investment cooperation by strengthening trust between the two trading partners. [Quer et al.'s \(2012\)](#) research results show that overseas Chinese help promote the development of foreign direct investment between the country where overseas Chinese are located and China by reducing cultural differences. [Akli \(2012\)](#) argues that international students should be at the forefront of cultural diplomacy. She proposes that students engage in a smooth action to cement intercultural exchange. They usually develop and sustain relationships with people from host countries through cultural inclusion and education. International students are further encouraged to proactively claim their cultural diplomacy role to cause a change from formal soft power, initially concentrated in embassies and related diplomatic missions, to informal smooth action in daily life abroad.

[Blomkvist and Drogendijk \(2016\)](#) concluded through empirical research that cultural distance hinders the development of China's direct investment in European countries. Through empirical research, [Ahern et al. \(2015\)](#) believe that cultural distance will reduce the number of overseas Mergers & Acquisitions (M&As) in the host country and reduce the possibility of completing the announced M&A projects. Even in huge numbers, international students' presence is insufficient to encourage intercultural interactions, build intercultural friendships, and result in global understanding ([Murat, 2017](#)). Instead, settings must be set up so that these processes can flourish. Students, both local and international, believe it is the role of educational institutions to encourage and deepen intercultural contacts. Several studies argue that Peer-pairing, cooperative learning, and residential programs are some of the ways that have been utilized, evaluated, and shown to develop healthy intercultural attitudes and relationships. Students can promote campus internationalization and financial benefits for host nations, which are essential to the fame and brand of institutions, general reputation, and cultural enhancement ([Qadeer et al., 2021](#)). In addition, international students usually transform into excellent ambassadors of the host countries when they get back to their home countries. [Tian and Liu \(2021\)](#) conducted research on the contribution of international students in China and their contribution to global prosperity. Their results indicate that inward

international students significantly impact global common goods in cultural diversity, global talents, improved policies, and many others.

To sum up, the existing literature has studied the relationship between international students in China, overseas Chinese network, cultural distance, and foreign direct investment, and has obtained positive research results, which provide a theoretical and empirical basis for this paper. The differences of previous studies in this paper are as follows: first, from the existing research literature, there is minor research literature on the relationship between African students in China and foreign direct investment. Therefore, from the perspective of African countries, this paper tests the impact of the scale of students in China on Chinese enterprises' direct investment in Africa with the cultural distance between China and Africa as the adjusting variable. It is found that Chinese enterprises' direct investment in African countries will be affected by African students studying in China, which effectively expands the existing research framework and provides a new theoretical framework for the research on the influencing factors of Chinese enterprises' direct investment in Africa; Second, different from the existing research literature, this paper takes the scale of Overseas Student Scholarship (Nsch) as the instrumental variable and uses the IV probit estimation method to study the impact of overseas students on Chinese enterprises' direct investment in Africa, so as to solve the endogenous problem between variables more effectively; Thirdly, this paper attempts to use the heterogeneity analysis method to make a more detailed study on the impact of income differences and resource endowment differences on African students and Chinese enterprises' direct investment in African countries. Fourth, the research on the relationship between international students in China and China's foreign direct investment mostly stays at the macro level. There is no literature to identify the impact of international students in China on enterprises' investment behavior. Therefore, this paper uses the micro-data of foreign direct investment at the enterprise level to identify whether international students in China impact Chinese enterprises' direct investment in Africa through probit regression, logit regression, Tobit regression, and other empirical research methods.

### 3. Theoretical Mechanism Analysis

Cultural distance has long been recognized as one of the important factors hindering direct investment between countries. China and Africa can promote language and culture through educational exchanges and cooperation. Language and culture can also increase the convenience in investment negotiations, effectively reduce transaction costs, and then promote foreign direct investment (Murat, 2014).

Compared with other African students, international students in China often have unique learning abilities and creativity. They can promote communication between China and Africa under their accumulated Chinese language, cultural identity, and national conditions during the semester to improve the success rate of enterprise investment transactions. Chinese enterprises' direct investment in Africa should face the investment cost caused by information asymmetry (Song, 2011) and

consider the substantial cultural differences. To understand and master Africa’s cultural conditions and human sophistication, Chinese enterprises and investors need to spend much time, which increases the investment cost by increasing the time cost (Barkema et al., 1996). Students from African countries are undoubtedly groups who know the Chinese and African cultures best. They are the core media of cultural exchanges between China and Africa. African students studying in China can promote cultural exchanges and understanding between China and Africa, narrow the cultural distance between China and Africa through multiculturalism, and reduce the time cost of Chinese enterprises’ investment in Africa due to cultural differences, promoting the development of Chinese enterprises’ direct investment in African countries by reducing cultural barriers (see Figure 2).

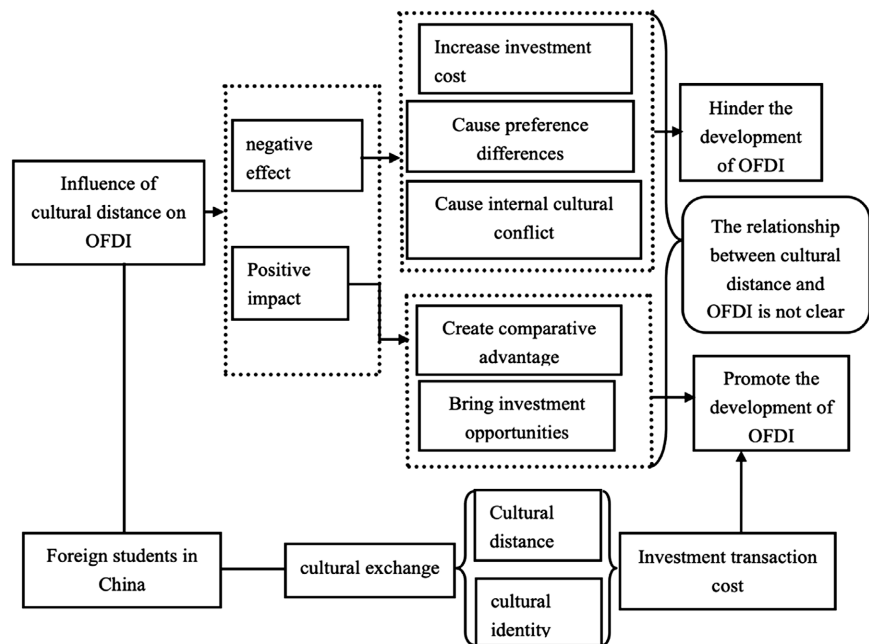


Figure 2. Impact mechanism path of international students, cultural distance, and enterprises’ foreign direct investment.

## 4. Theoretical Model Analysis

### 4.1. Assumptions

The cost of foreign direct investment (FDI) includes the cost of market development and channel construction and the cost of fixed production investment. It is assumed that the fixed cost paid by Chinese enterprises for African country  $i$  direct investment (OFDI) is  $C_i$ . When we consider the influence of international students in China, the cost of Chinese enterprises’ direct investment in African countries can be expressed as  $\frac{C_i}{\delta(s)}$ , where  $s$  is the number of international students from country  $i$ . It is considered that the exogenous ratio of total revenue for the heterogeneous product sector  $h$  is  $\beta_h$ . Then, the ratio of producing homogeneous products is  $1 - \sum_1^n \beta_h$ . It is assumed that every enterprise has a random unit

of labor productivity  $\varnothing$ . In addition,  $\varnothing$  it obeys the Pareto distribution with parameter  $r$ . The more significant the  $r$ , the smaller the heterogeneity between enterprises.

$$P(\tilde{\varnothing} < \varnothing) = F(\varnothing) = 1 - \varnothing^{-r} \quad \text{and} \quad dF(\varnothing) = r\varnothing^{-r-1}d\varnothing, \varnothing \geq 1 \quad (1)$$

## 4.2. Model Establishment

Referring to the theoretical framework of Helpman et al. (2004), it is assumed that the representative department  $n$  of country  $i$  produces a series of  $l$  products. If the demand function is in CES form, the demand function of country  $i$  is:

$$D_i = \frac{\beta E_i p^{-\varepsilon}}{\int_0^{n_i} p_i(l)^{1-\varepsilon} dl}, \quad \varepsilon = \frac{1}{1-a} > 1 \quad (2)$$

where  $n_i$  is a collection of heterogeneous products;  $E_i$  represents the total expenditure of country  $i$ ;  $\varepsilon$  is the substitution elasticity of products. Assuming that the product substitution elasticity of each country is the same, in this case, the monopoly competition enterprise with the productivity of  $\varnothing$  will set its price as:

$$p_i = \frac{w_i \varnothing}{a} \quad (3)$$

Among them,  $\frac{1}{a}$  represents the plus ratio.

To simplify the model, the unit labor wage  $w$  in various countries can be assumed  $w_i = 1$ . According to Formula (2), the output cost is:

$$C(Q) = \frac{\alpha \beta E_i}{\int_0^{n_i} p_i(l)^{\varepsilon-1} dl} \times \left(\frac{\varnothing}{\alpha}\right)^{-\varepsilon} \quad (4)$$

The profit of Chinese enterprises' direct investment in country  $i$  is:

$$\pi_i = (1-\alpha) \frac{\beta E_i}{\int_0^{n_i} p_i(l)^{\varepsilon-1} dl} \times \left(\frac{\varnothing}{\alpha}\right)^{1-\varepsilon} - \frac{C_i}{\delta(s)} \quad (5)$$

another  $A_i = \frac{1-\alpha}{a^{(1-\varepsilon)}} \times \frac{\beta E_i}{\int_0^{n_i} p_i(l)^{\varepsilon-1} dl}$ , suppose African countries exist  $A_i = A$ , that

$$\pi_i = A \times \varnothing^{1-\varepsilon} - \frac{C_i}{\delta(s)} \quad (6)$$

To simplify the analysis, the model assumes that the market of country  $i$  is separated from that of other countries, that is, Chinese enterprises will be based on the net profit  $\pi_i$  obtained by direct investment in country  $i$  is greater than zero to make a decision. When  $\pi_i > 0$ , one can get:

$$\varnothing < \left[ \frac{A}{C_i} \times \delta(s) \right]^{\frac{1}{\varepsilon-1}} \quad (7)$$

According to the fact that the enterprise productivity  $\varnothing$  obeys the cumulative

distribution function  $F(\varnothing)$ , the probability equation of Chinese enterprises' direct investment in country  $i$  can be obtained:

$$\begin{aligned}
 P(\pi_i > 0) &= P\left(1 \leq \varnothing < \left[\frac{A}{C_i} \times \delta(s)\right]^{\frac{1}{\varepsilon-1}}\right) \\
 &= F\left\{\left[\frac{A}{C_i} \times \delta(s)\right]^{\frac{1}{\varepsilon-1}}\right\} - F(1) - P\left\{\varnothing = \left[\frac{A}{C_i} \times \delta(s)\right]^{\frac{1}{\varepsilon-1}}\right\}
 \end{aligned} \tag{8}$$

By deriving from the above formula, we can get:

$$\frac{dP(\pi_i > 0)}{d\delta(s)} \frac{d\delta(s)}{ds} = \frac{r}{\varepsilon-1} \left(\frac{A}{C_i}\right)^{\frac{r}{\varepsilon-1}} [\delta(s)]^{\frac{r}{\varepsilon-1}-1} \times \delta'(s) > 0 \tag{9}$$

Based on the above analysis, we can assume that when the number of international students in country  $i$  comes to China. The bigger  $\delta(s)$ , if the profit of Chinese enterprises' direct investment in country  $i$  is greater than zero, the greater the probability of their direct investment in country  $i$ . By narrowing the cultural distance between China and Africa and reducing the cost of Chinese enterprises' direct investment in country  $i$ , international students in China can obtain higher profits and expand the scale of direct investment.

Therefore, this paper puts forward Hypothesis 1: international students in China help promote Chinese enterprises' direct investment in African host countries. Hypothesis 2: international students in China can shorten the overall cultural distance between China and the host countries, reduce the cost of foreign direct investment, and encourage Chinese enterprises to make direct investments in them.

## 5. Measurement Models, Variables, and Data

### 5.1. Research Design (Sample Selection and Data Source)

The data of international students in the article comes from the concise statistics of international students in China on the website of the Ministry of Education of China. After screening, the international students' data in China from 48 African countries over the years are obtained, and the data of the scale of international students in the scholarship policy of the Chinese government is also from the database. The data of cultural distance comes from the Hofstede database. The foreign investment data of Chinese enterprises come from the database of "directory of overseas investment enterprises" released by the Department of Foreign Investment and Economic Cooperation of the Ministry of Commerce of the People's Republic of China. This directory records the investment subject, investment destination area, business scope, and other information of domestic enterprises setting up enterprises abroad. It is the database with the largest sample size and the complete data of overseas investment enterprises. Based on data availability, this paper summarizes 1586 Chinese enterprises that made direct investments in African countries from 2003 to 2014. Then, match the enterprise investment and international students' data

in China with the country and year as the key variables, and eliminate some samples with serious missing and abnormal data. A total of 1586 enterprises from 17 industries invested in 43 African countries from 2003 to 2014, with a cumulative sample size of 553883. At the same time, this paper also selects control variables from the enterprise and national levels. The data of control variables at the national level comes from the World Bank, the Worldwide Governance Indicators database, the United Nations Statistical Office database, and so on. To avoid the research's extreme values' influence, this paper's variables were reduced by 1% and 99%, and the processed data were used in the subsequent analysis. The empirical analysis of this paper adopts Stata 15, a software tool.

## 5.2. Variable Selection and Description

### 5.2.1. International Students in China

The core explanatory variable of this paper is students studying in China. The number of students studying in China from African countries over the years is quantified and processed by natural logarithm. Existing studies show that international students in China reflect the closer cultural exchanges between China and African countries. Therefore, this paper expects international students in China to promote Chinese enterprises' investment in African countries.

### 5.2.2. Direct Investment in Africa

China's direct investment in Africa is the explained variable. In this paper, the practice of existing literature is used for reference, and the virtual variable enterprise is used for measurement. If an enterprise made a direct investment (OFDI) in African countries in that year, it is 1; otherwise, it is 0.

### 5.2.3. Cultural Distance

Cultural distance reflects the cultural differences between China and the host country. This paper uses the Hofstede index to describe the cultural differences between the two countries based on Zhang and Li (2014) and Yang et al. (2018). Based on the availability of data, this paper starts from power distance (PCD), uncertainty avoidance (UCD), and individualism/collectivism (ICCD). Masculinity/Feminism (GCD) is used to measure the overall cultural distance between China and the host country. The specific calculation formula is as follows:

$$CD_j = \sum \frac{(I_{ij} - I_{ic})^2}{V_i} \quad (10)$$

where CD represents the overall cultural distance between China and the host countries.  $I_{ij}$  represents the  $i$  cultural dimension index value of  $j$  in each host country.  $I_{ic}$  represents the index value of the  $i$  cultural dimension in China.  $V_i$  represents the variance of the  $i$  cultural dimension indicator.

### 5.2.4. Control Variables

This paper selects control variables from the national and enterprise levels to con-

control other factors' impact. The control variables at the national level include the economic development level of the host country, national stability, the scale of foreign direct investment, the level of opening to the outside world, the level of infrastructure, etc. Enterprise-level control variables include enterprise registered capital and enterprise age. The variable selection can be seen in **Table 1**.

**Table 1.** The selection of variables.

Variable	Code	Variable Description
Number of International Students in China	NSTU	Natural logarithm of the number of students studying in China from African countries
Direct Investment in Africa	OFDO	The value of Chinese enterprises' investment in African countries in that year is 1; otherwise, it is 0
Cultural Distance	CD	Calculated according to Formula 1.2.2
Economic Development Level	PGDP	Natural logarithm of per capita GDP of the host country
Trade Openness	Open	The proportion of total import and export trade of African host countries in GDP
Foreign Direct Investment	FDIS	The proportion of Africa's host foreign direct investment (OFDI) in GDP
National Stability	PS	World Bank political stability index
Infrastructure Level	Internet	The proportion of Internet users in the total population
Registered Capital	CAP	Natural logarithm of registered capital
Enterprise Age	Age	Natural logarithm of years of establishment

### 5.3. Model Construction

To explore the relationship between the number of international students in China and Chinese enterprises' direct investment in African countries, this paper constructs the following measurement model based on the research methods of Sun et al. (2021):

$$OFDI_{ict} = \alpha_0 + \alpha_1 NSTU_{ct} + cX_{ict} + Ind_{dummy} + Year_{dummy} + \varepsilon_{it} \quad (11)$$

Among them,  $OFDI_{ict}$  represents a dummy variable of Chinese enterprise  $i$  direct investment in African countries in  $t$  years.  $NSTU_{ct}$  represents the number of students from African countries studying in China in  $t$  years.  $X$  is the control variable at the national and enterprise levels mentioned above. Since the main objective of this paper is to study the impact of international students in China on Chinese enterprises' direct investment in Africa, this paper uses the previous practices for reference to control the industry and annual effects,  $Ind_{dummy}$  indicates the industry dummy variable,  $Year_{dummy}$  represents the annual dummy variable.  $\varepsilon_{it}$  is a random perturbation term. It should be noted that since the explained variable in this paper is 0/1 dummy variable, the OLS estimation is biased. Therefore, the Probit model is used for parameter estimation in the benchmark model.

To further explore the impact of cultural distance on Chinese enterprises' direct investment in African countries, this paper first constructs a regression model with cultural distance as the core explanatory variable to test the direct impact of cultural distance on enterprise OFDI. To then construct the interactive term between cultural distance and the number of students studying in China, exploring cultural distance's regulatory effect on the relationship between international students in China and OFDI. The specific model settings are as follows:

$$\text{OFDI}_{ict} = \beta_0 + \beta_1 \text{CD}_{jc} + cX_{ict} + \text{Ind}_{\text{dummy}} + \text{Year}_{\text{dummy}} + \varepsilon_{it} \quad (12)$$

$$\begin{aligned} \text{OFDI}_{ict} = & \gamma_0 + \gamma_1 \text{NSTU}_{ct} + \gamma_2 \text{CD}_{jc} + \gamma_3 \text{NSTU}_{ct} \times \text{CD}_{jc} \\ & + cX_{ict} + \text{Ind}_{\text{dummy}} + \text{Year}_{\text{dummy}} + \varepsilon_{it} \end{aligned} \quad (13)$$

where  $\text{CD}_{jc}$  is the total cultural distance between China and African host countries. Equation (12) is used to test the direct impact of cultural distance on OFDI. Equation (13) mainly focuses on the interaction term coefficient between cultural distance and international students in China. If the coefficient of the interaction term is significant, it indicates that the regulatory effect exists. The meanings of other variables are consistent with the benchmark model and will not be repeated.

## 5.4. Analysis of Empirical Results

### 5.4.1. Descriptive Analysis

Before modeling, this paper makes a statistical analysis on the essential characteristics of the variables in this paper. The average value of OFDI is 0.003, indicating that the sample size of enterprises investing in African countries is 0.3%. The average value of NSTU is 5.084, the minimum value is 0, and the maximum value is 7.748. The difference between the minimum and maximum values is significant, indicating great differences in the scale of international students in China among African countries. The average value of CD is 4.452, and the maximum and minimum values show remarkable differences in cultural distance between African host countries and China. The mean value of PGDP is 7.269, and the standard deviation is 1.105, which is less than 3, indicating that the economic development level of the host country does not fluctuate considerably. The average value of open is 0.79, the maximum value is 2.994, and the minimum value is 0.247, indicating a large gap in the level of trade openness among African countries. Similarly, the statistical characteristics of other variables can be analyzed accordingly. It can be seen from the control variables at the enterprise level that the registered capital of sample enterprises shows tremendous differences, reflecting that there is a particular gap in the scale of different enterprises. The results of the descriptive analysis are shown in **Table 2**.

### 5.4.2. Correlation Analysis and Collinearity Diagnosis

**Table 3** shows the correlation coefficient matrix between the variables in the paper. At the 5% significance level, the number of international students in China (NSTU) shows a significant positive correlation with OFDI. Both national-level and enterprise-level control variables are significantly correlated with OFDI. Although the correlation coefficient between cultural distance and OFDI is negative,

it is not significant. There is a significant positive correlation with the scale of international students in China, which may be because international students prefer countries with large cultural differences. The correlation coefficient between control variables is also disclosed in **Table 3**. Through this correlation coefficient, the multicollinearity between variables can be judged. We found that the correlation coefficient between infrastructure level (Internet) and economic development level (PGDP) is the highest, which is 0.606. It is necessary to diagnose multicollinearity.

**Table 2.** Results of descriptive analysis.

Variables	Obs.	Mean	Std.	Min.	Max.	Skew.	Kurt.
OFDI	553,883	0.003	0.054	0	1	18.56	345.483
NSTU	553,883	5.084	1.501	0	7.748	-1.08	4.962
CD	553,883	4.452	2.039	2.416	8.892	0.87	2.348
PGDP	553,883	7.269	1.105	5.15	9.873	0.463	2.359
Open	553,883	0.79	0.46	0.247	2.994	2.375	10.711
PS	553,883	-0.662	0.603	-1.743	0.873	0.458	2.628
Internet	544,741	10.132	12.158	0.106	56.8	1.859	5.978
FDIS	537,725	4.656	5.882	-3.751	34.464	2.805	12.63
CAP	539,822	16.09	2.554	11.009	21.979	0.215	2.426
Age	550,271	2.449	0.541	1.609	3.784	0.349	2.445

**Table 3.** Correlation coefficient matrix.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) OFDI	1.000									
(2) NSTU	0.038*	1.000								
(3) CD	-0.002	0.030*	1.000							
(4) PGDP	0.010*	0.117*	0.130*	1.000						
(5) Open	-0.013*	-0.123*	-0.034*	0.432*	1.000					
(6) PS	0.005*	0.023*	-0.087*	0.349*	0.169*	1.000				
(7) Internet	0.011*	0.210*	0.161*	0.606*	0.228*		1.000			
(8) FDIS	-0.003*	-0.151*	-0.076*	0.026*	0.272*		0.063*	1.000		
(9) CAP	0.013*	-0.087*	0.000	-0.029*	-0.006*		-0.050*	-0.011*	1.000	
(10) Age	0.005*	0.075*	0.000	0.022*	0.005*	-0.004*	0.052*	0.008*	0.379*	1.000

\*Shows significance at the 0.05 level.

To avoid the influence of multicollinearity on the research, the variance expansion factor method (VIF) is used for collinearity diagnosis. The diagnostic results in **Table 4** show that the VIF value of each variable is less than 10, and there is no severe multicollinearity in the explanatory text.

**Table 4.** Multicollinearity diagnosis results.

Variables	VIF
PGDP	2.02
Internet	1.97
Open	1.54
PS	1.38
Age	1.2
CAP	1.19
FDIS	1.13
NSTU	1.12
CD	1.07

#### 5.4.3. Regression Analysis of International Students and Chinese Enterprises' Direct Investment in Africa

Although the previous correlation analysis has verified the positive correlation between the size of international students in China and OFDI, the correlation analysis cannot describe the causal relationship between variables. Therefore, further regression analysis is needed. **Table 5** reports the regression results of model (1). This paper discusses the relationship between international students in China and OFDI by gradually introducing control variables. There are only core explanatory variables in model (1), the influence of national-level control variables is considered in model (2), and the influence of enterprise-level control variables is further considered in model (3). The three equations do not control the industry and annual effects, and the coefficients of NSTU are positive at the significance level of 1%. Model (4) controls industry and annual effects based on model (3). The results show that the coefficient of NSTU is 0.284 and passes the t-test of 1% significance level, which verifies the positive impact of the scale of international students in China on Chinese enterprises' direct investment in African countries. From the perspective of control variables, the economic development level of the host country, the scale of foreign direct investment, and the scale of Chinese enterprises all increase the possibility of Chinese enterprises' direct investment in Africa. Other control variables also have a significant impact on OFDI. It is reasonable to select the control variables in the text.

#### 5.4.4. Regression Analysis of International Students, Cultural Distance, and Chinese Enterprises' Direct Investment in Africa

Based on the benchmark model, this paper further estimates the parameters of

models (2) and (3), and the estimation results are shown in **Table 6**. Although the coefficient of Cd in model (1) is negative, it is not significant, indicating that the direct inhibitory effect of cultural distance on OFDI is not apparent. Interaction term NSTU in model (2)  $\times$  The coefficient of CD is  $-0.014$  and passed the 1% significance level test, indicating that cultural distance has a negative regulatory effect on the relationship between international students in China and Chinese enterprises' direct investment in Africa, that is, cultural distance weakens the role of the scale of international students in China in promoting OFDI.

**Table 5.** Benchmark regression results.

	(1)	(2)	(3)	(4)
	OFDI	OFDI	OFDI	OFDI
NSTU	0.233*** (29.162)	0.219*** (23.880)	0.228*** (24.365)	0.284*** (20.234)
PGDP		0.119*** (9.745)	0.117*** (9.438)	0.103*** (8.095)
Open		-0.298*** (-7.193)	-0.287*** (-6.862)	-0.226*** (-5.094)
PS		0.045*** (2.776)	0.040** (2.470)	0.008 (0.466)
Internet		-0.005*** (-5.330)	-0.005*** (-4.877)	-0.002** (-2.171)
FDIS		0.008*** (4.415)	0.008*** (4.112)	0.009*** (4.700)
CAP			0.043*** (11.781)	0.035*** (8.596)
Age			-0.051*** (-2.870)	-0.045** (-2.321)
_cons	-4.075*** (-83.736)	-4.604*** (-47.212)	-5.220*** (-45.023)	-5.554*** (-31.659)
Industry	Not controlled	Not controlled	Not controlled	Control
Year	Not controlled	Not controlled	Not controlled	Control
Obs.	553,883	528,583	515,192	503,936
Pseudo R <sup>2</sup>	0.049	0.052	0.058	0.066

T-values are in parenthesis; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

**Table 6.** The return of international students, cultural distance, and China's direct investment in Africa.

	(1)	(2)
	OFDI	OFDI
CD	-0.003 (-0.605)	0.080*** (3.180)
NSTU		0.346*** (14.727)
NSTU × CD		-0.014*** (-3.359)
PGDP	0.127*** (10.312)	0.101*** (7.914)
Open	-0.531*** (-13.786)	-0.221*** (-4.954)
PS	0.086*** (4.938)	0.004 (0.238)
Internet	-0.004*** (-3.626)	-0.002* (-1.931)
FDIS	0.002 (1.004)	0.010*** (5.032)
CAP	0.034*** (8.519)	0.035*** (8.593)
Age	-0.044** (-2.335)	-0.045** (-2.340)
_cons	-4.400*** (-26.872)	-5.911*** (-28.040)
Obs.	503,936	503,936
Pseudo R <sup>2</sup>	0.039	0.066

T-values are in parenthesis; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

To further explore the impact of the four dimensions of cultural distance on the relationship between international students in China and OFDI, the regression of interaction between each dimension index and international students in China is carried out. The coefficients of PCD and GCD in models (1) - (4) in **Table 7** are significantly positive. The coefficients of ICCD and UCD are significantly nega-

tive, indicating that the immense power distance and male/female differences between the host country and China will not negatively impact Chinese enterprises' direct investment in Africa. The large differences between individualism/collectivism and uncertainty avoidance may directly reduce the scale of Chinese enterprises' OFDI in Africa. The interaction term coefficient in models (6) and (7) is insignificant, indicating that PCD and ICCD do not regulate the relationship between international students in China and OFDI. NSTU in model (8) × The coefficient of GCD is significantly positive, indicating that masculinity/feminism will directly promote OFDI and indirectly promote OFDI by strengthening the impact of NSTU on OFDI. In model (8), the interaction term coefficient between NSTU and UCD is significantly negative, indicating that uncertainty avoidance weakens the promotion of overseas students to OFDI, indicating that uncertainty avoidance will not only directly inhibit China's non-direct investment but also indirectly inhibit the impact of NSTU on OFDI. Based on the above analysis, on the whole, the cultural distance between the host country and China has an inhibitory effect on the promotion of overseas students and OFDI, which is reflected explicitly in the inhibitory effect of uncertainty avoidance distance on OFDI, and the impact of different dimensions of cultural distance on NSTU and OFDI is different.

**Table 7.** Regression results of various dimensions of cultural distance.

	(1)	(2)	(3)	(4)	(6)	(7)	(8)	(9)
Explained Variable: OFDI								
	Power Distance (PCD)	Individualism/Collectivism (ICCD)	Masculinity/Feminism (GCD)	Uncertainty Avoidance (UCD)	Power Distance (PCD)	Individualism/Collectivism (ICCD)	Masculinity/Feminism (GCD)	Uncertainty Avoidance (UCD)
CD	0.010*** (2.774)	-0.008** (-2.065)	0.010*** (4.524)	-0.005*** (-3.549)	-0.013 (-0.607)	0.027 (1.122)	-0.006 (-0.438)	0.024*** (3.142)
NSTU					0.277*** (18.056)	0.286*** (19.660)	0.285*** (17.624)	0.353*** (16.856)
NSTU × CD					0.004 (1.057)	-0.006 (-1.412)	0.005** (2.011)	-0.006*** (-4.261)
PGDP	0.135*** (10.670)	0.126*** (10.297)	0.126*** (10.121)	0.128*** (10.462)	0.111*** (8.382)	0.103*** (8.102)	0.097*** (7.416)	0.102*** (8.011)
Open	-0.545*** (-14.074)	-0.534*** (-14.031)	-0.560*** (-14.300)	-0.527*** (-13.864)	-0.249*** (-5.455)	-0.241*** (-5.355)	-0.256*** (-5.533)	-0.219*** (-4.900)
PS	0.090*** (5.322)	0.080*** (4.587)	0.084*** (4.952)	0.072*** (4.123)	0.008 (0.425)	-0.006 (-0.311)	-0.008 (-0.464)	-0.017 (-0.922)

## Continued

Internet	-0.004*** (-4.148)	-0.003*** (-2.915)	-0.004*** (-3.949)	-0.004*** (-3.423)	-0.003** (-2.265)	-0.001 (-1.170)	-0.002 (-1.567)	-0.001 (-1.192)
FDIS	0.002 (1.299)	0.002 (0.997)	0.001 (0.581)	0.001 (0.694)	0.010*** (4.940)	0.009*** (4.780)	0.008*** (4.277)	0.010*** (5.010)
CAP	0.034*** (8.531)	0.034*** (8.524)	0.034*** (8.533)	0.034*** (8.533)	0.035*** (8.610)	0.035*** (8.601)	0.035*** (8.624)	0.035*** (8.617)
Age	-0.044** (-2.327)	-0.044** (-2.336)	-0.044** (-2.335)	-0.044** (-2.335)	-0.045** (-2.315)	-0.045** (-2.327)	-0.045** (-2.310)	-0.045** (-2.336)
_cons	-4.482*** (-27.193)	-4.399*** (-27.031)	-4.416*** (-27.058)	-4.374*** (-26.859)	-5.577*** (-30.252)	-5.576*** (-31.267)	-5.536*** (-30.401)	-5.874*** (-29.714)
Industry	Control	Control	Control	Control	Control	Control	Control	Control
Year	Control	Control	Control	Control	Control	Control	Control	Control
Obs.	503,936	503,936	503,936	503,936	503,936	503,936	503,936	503,936
Pseudo R <sup>2</sup>	0.040	0.040	0.040	0.040	0.066	0.066	0.069	0.068

T-values are in parenthesis; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

## 5.5. Robustness Test

To verify the robustness of the benchmark model, this paper tests the robustness by changing the estimation method, replacing variables, and considering endogeneity. The robust regression outcomes are consistent with the benchmark model, indicating that the model has certain robustness.

### 5.5.1. Endogenous Problems

Although this paper controls the impact of industry and annual effects and selects control variables from the national and enterprise levels, the model may still have endogenous issues caused by missing variables and reverse causality. In this paper, the International Student Scholarship (Nsch) scale is used as a tool variable for two-stage IV probit estimation. This is because the scale of scholarships will affect the number of international students in China, so it meets relevant requirements. However, the scale of scholarships will not directly affect the direct investment of Chinese enterprises in Africa and meet the exclusive conditions. The estimation results of the IV probit model are reported in **Table 8**, and the instrumental variables are tested. The coefficient of Nsch in model (1) is significantly positive, indicating a significant positive impact between the scale of scholarships and the scale of international students. Wald test rejected the original hypothesis that there is no endogeneity. The AR statistic of the weak instrumental variable test is 187.32, and it passed the test, indicating that there is no problem with the weak instrumental variable. From the regression results of the second stage, the coefficient of NSTU

is 0.231 and passed the test of 1% significance level, indicating that considering the endogenous impact, the impact of the scale of Chinese students on Chinese enterprises' direct investment in Africa remains unchanged.

**Table 8.** IV probit regression results.

	(1)	(2)
	Phase I	Phase II
	NSTU	OFDI
NSCH	0.981*** (1204.99)	
NSTU		0.231*** (13.688)
PGDP	0.165*** (175.72)	0.105*** (8.308)
Open	-0.304*** (-127.50)	-0.262*** (-5.960)
PS	0.083*** (56.65)	0.009 (0.529)
Internet	-0.003*** (-36.54)	-0.003*** (-2.624)
FDIS	-0.190*** (-143.14)	0.008*** (4.003)
CAP	0.000 (0.00)	0.035*** (8.586)
Age	-0.000 (-0.00)	-0.044** (-2.306)
_cons	-5.348*** (-29.808)	-5.348*** (-29.808)
Industry	Control	Control
Year	Control	Control
Wald Exogenous Test		28.64***
Weak Instrumental Variable Test (AR)		187.32***
Obs.	502,587	502,587

T-values are in parenthesis; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

### 5.5.2. Change the Estimation Method

The previous benchmark model uses probit regression, and the following uses logit regression for estimation. In addition, 0/1 explained variable could also be regarded as a limited explained variable to some extent. Therefore, as a robustness test, this paper also uses Tobit regression. The results, shown in **Table 9**, that is to say, models (1) and (2) are logit regression results. The coefficient of NSTU in model (1) is significantly positive, while the coefficient of the interaction term in model (2) is significantly harmful. Models (3) and (4) are Tobit regression results. Although the coefficient difference is significant, the coefficient of NSTU in model (3) is still significantly positive, and the coefficient of the interaction term in model (4) is significantly negative, indicating that the relationship between international students in China, cultural distance, and China's direct investment in Africa remains unchanged by changing the estimation method.

**Table 9.** Logit and Tobit regression results.

	(1)	(2)	(3)	(4)
	Logit Regression		Tobit Regression	
	OFDI	OFDI	OFDI	OFDI
NSTU	0.690*** (24.594)	0.881*** (14.035)	0.001*** (20.025)	0.002*** (13.257)
CD		0.254*** (3.409)		0.000*** (2.827)
NSTU × CD		-0.043*** (-3.490)		-0.000*** (-3.689)
PGDP	0.367*** (9.633)	0.366*** (9.518)	0.001*** (7.696)	0.001*** (7.690)
Open	-0.944*** (-7.171)	-0.937*** (-7.048)	-0.003*** (-11.193)	-0.003*** (-11.370)
PS	0.132*** (2.742)	0.129*** (2.607)	0.000 (0.757)	-0.000 (-0.209)
Internet	-0.016*** (-5.181)	-0.017*** (-5.073)	0.000 (0.456)	0.000* (1.654)
FDIS	0.025*** (4.255)	0.027*** (4.648)	0.000*** (5.137)	0.000*** (5.038)
CAP	0.128*** (12.069)	0.128*** (12.058)	0.000*** (8.956)	0.000*** (8.956)

## Continued

Age	-0.144*** (-2.789)	-0.144*** (-2.782)	-0.000** (-2.333)	-0.000** (-2.333)
_cons	-13.358*** (-38.268)	-14.509*** (-29.322)	-0.013*** (-11.113)	-0.015*** (-11.109)
Industry	Control	Control	Control	Control
Year	Control	Control	Control	Control
Obs.	515,192	515,192	504,143	504,143
Pseudo R <sup>2</sup>	0.059	0.060	-0.001	-0.001

T-values are in parenthesis; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

### 5.5.3. Consider the Influence of Lag Period

Since there may be some lag in the impact of Chinese students on OFDI, this paper uses the method of Sun et al. (2021) for reference and uses the lag phase I and lag phase II variables of Chinese students to replace the current variables to regress with OFDI, respectively. The results are shown in Table 10 NSTU in models (1) and (3) NSTU\_1 and NSTU\_2. The coefficients of 2 are significantly positive, which proves that the relationship between the number of international students in China and OFDI remains unchanged after considering the influence of the lag period of international students in China. The coefficients of the interaction terms of model (2) and model (4) are significantly negative, which verifies the robustness of the model again.

**Table 10.** Regression results considering the lag period of international students in China.

	(1)	(2)	(3)	(4)
	OFDI	OFDI	OFDI	OFDI
NSTU_1	0.264*** (19.177)	0.328*** (14.324)		
CD		0.078** (3.327)		0.074*** (3.297)
NSTU_1 × CD		-0.015*** (-3.560)		
NSTU_2			0.249*** (18.133)	0.311*** (13.830)
NSTU_2 × CD				-0.015*** (-3.555)

## Continued

PGDP	0.102*** (8.051)	0.102*** (7.949)	0.100*** (7.859)	0.101*** (7.843)
Open	-0.262*** (-5.896)	-0.262*** (-5.830)	-0.292*** (-6.539)	-0.296*** (-6.550)
PS	0.019 (1.096)	0.015 (0.831)	0.027 (1.524)	0.022 (1.213)
Internet	-0.0022*** (-2.147)	-0.0022*** (-1.891)	-0.002* (-2.134)	-0.002* (-1.884)
FDIS	0.008*** (4.288)	0.009*** (4.634)	0.008*** (4.324)	0.009*** (4.661)
CAP	0.034*** (8.509)	0.034*** (8.510)	0.034*** (8.472)	0.034*** (8.470)
Age	-0.045** (-2.309)	-0.045** (-2.326)	-0.044** (-2.268)	-0.044** (-2.282)
cons	-5.497*** (-31.543)	-5.846*** (-28.506)	-4.953*** (-33.064)	-5.284*** (-29.070)
Industry	Control	Control	Control	Control
Year	Control	Control	Control	Control
Obs.	483176	483176	458945	458945
Pseudo R <sup>2</sup>	0.060	0.060	0.053	0.054

T-values are in parenthesis; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

## 5.6. Further Analysis

### 5.6.1. Consider the Impact of the Development Level of the Host Country

Considering the impact of international students in China on Chinese enterprises' non-direct investment, there may be an impact on the development level of the host country. Based on the World Bank's income classification standard in 2015, this paper will classify the host countries in Africa into low-income countries and high-income countries. The sample of low-income countries includes low-income and high-income countries, while the selection of high-income countries includes medium and high-income countries. The sub-sample regression results of heterogeneity in African countries are reported in **Table 11**. The coefficient of NSTU in model (1) is 0.361 and significant. Although the coefficient of this variable in model (2) is positive, it is not significant, indicating that compared with high-income African countries, the impact of international students in China on OFDI in

low-income countries is more prominent. This may be because China's OFDI in high-income countries is much higher than in low-income countries. China's direct investment in high-income countries is not sensitive to the changes in international students in China.

**Table 11.** Subsample regression considering the impact of national heterogeneity.

	(1)	(2)
	Low-Income Countries	High-Income Countries
NSTU	0.361*** (20.844)	0.001 (0.038)
PGDP	0.115*** (4.724)	-0.183*** (-3.450)
Open	-0.068 (-1.407)	-0.441*** (-5.533)
PS	-0.054** (-2.077)	-0.019 (-0.585)
Internet	-0.003** (-2.050)	0.009*** (4.002)
FDIS	0.013*** (6.589)	-0.015** (-2.345)
CAP	0.031*** (6.589)	0.045*** (5.704)
Age	-0.029 (-1.294)	-0.086** (-2.291)
Cons	-6.205*** (-25.050)	-1.856*** (-3.778)
Industry	Control	Control
Year	Control	Control
Obs.	384,355	118,206
Pseudo R <sup>2</sup>	0.081	0.059

T-values are in parenthesis; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

### 5.6.2. Consider the Impact of the Host Country's Resource Endowment

Due to specific differences in natural resource reserves among African countries, to consider the impact of resource endowment heterogeneity, this paper measures

the resource endowment of the host country by the proportion of ore and metal products exports of the host country to the total exports (RES), and then divides the whole sample into high and low resource endowment groups according to the median number of RES, the sub-sample regression shown in **Table 12** was carried out. NSTU in model (3)  $\times$  The coefficient of RES is significantly positive, indicating that resource endowment has a positive impact on the relationship between international students in China and OFDI. The coefficient of NSTU in model (1) is 0.333, and the coefficient of NSTU in model (2) is 0.317. Combined with the regression results of model (3), it can be seen that compared with the group with low resource endowment, the OFDI of international students in China to countries with high resource endowment is more prominent.

**Table 12.** Subsample regression considering the impact of host country resource endowment heterogeneity.

	(1)	(2)	(3)
	High-Endowment Group	Low Resource Endowment Group	Full Sample
NSTU	0.333*** (13.360)	0.317*** (15.959)	0.278*** (18.807)
RES			-0.004 (-1.518)
NSTU $\times$ RES			0.001** (2.061)
PGDP	0.052*** (2.842)	0.106*** (4.952)	0.107*** (8.344)
Open	0.109 (1.218)	-0.118** (-1.984)	-0.232*** (-5.143)
PS	0.136*** (5.065)	-0.058* (-1.950)	0.005 (0.264)
Internet	0.001 (0.641)	-0.009*** (-4.210)	-0.002** (-2.043)
FDIS	0.012*** (5.230)	-0.003 (-0.585)	0.008*** (3.955)
CAP	0.038*** (6.765)	0.032*** (5.386)	0.035*** (8.597)
Age	-0.050* (-1.858)	-0.041 (-1.479)	-0.044*** (-2.304)

**Continued**

Cons	-5.806*** (-20.366)	-5.579*** (-23.120)	-5.549*** (-31.118)
Obs.	258613	245009	503936
Pseudo R <sup>2</sup>	0.056	0.089	0.066

T-values are in parenthesis; \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$ .

## 6. Conclusion

This paper uses data from the “Directory of overseas investment enterprises (Institutions)” released by the Department of Foreign Investment and Economics of the Ministry of Commerce from 2003 to 2014. The data cover foreign direct investment samples from 1586 Chinese enterprises across 17 industries in 43 African countries, with a cumulative sample size of 553,883. Firstly, through theoretical model derivation, this paper hypothesizes that international students in China can shorten the overall cultural distance between China and host countries, reduce the cost of foreign direct investment, and thereby promote Chinese enterprises to invest directly in them. Then, it further confirms the hypothesis through an empirical test. At the same time, the results of the heterogeneity analysis show that, compared to African countries with high income and low resource endowment, overseas students in China have a more pronounced impact on OFDI in countries with low income and high resource endowment.

The study employed the Kogut-Singh (KS) composite index calculated based on Hofstede’s six-dimensional framework. However, this data foundation is relatively old and cannot reflect the digital age, multinational corporate management practices, and rapidly changing cultural characteristics. The firm-level data is limited to 2014. The research conclusions should be promptly adjusted in response to data changes to optimize the findings further. The number of students is one of the important factors influencing Sino-African investment relations.

In contrast, unobserved bilateral factors, such as political relations and trade volume, may still affect investment decisions. In the future, it is necessary to include bilateral political relations and bilateral trade volume between China and Africa as moderating variables, and to incorporate firm-level micro-data, such as internal capabilities, managers’ international experience, and parent company cultural inclusiveness, into empirical model research to explore further the relationship between international students studying in China, cultural distance, and Chinese companies’ direct investment in Africa. This will be an interesting question for future research.

## Data Availability Statement

Supporting reported results can be found below:

- 1) Cultural distance: <https://geert-hofstede.com>;

2) Foreign direct investment of Chinese enterprises:

<https://hzs.mofcom.gov.cn/>;

3) Other control variable data: <https://data.worldbank.org/>;

4) Data of foreign students in China: <http://www.moe.gov.cn/>.

## Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

## References

- Ahern, K. R., Daminelli, D., & Fracassi, C. (2015). Lost in Translation? The Effect of Cultural Values on Mergers around the World. *Journal of Financial Economics*, 117, 165-189. <https://doi.org/10.1016/j.jfineco.2012.08.006>
- Akli, M. (2012). The Role of Study-Abroad Students in Cultural Diplomacy: Toward an International Education as Soft Action. *International Research and Review*, 2, 32-48.
- Anwar, A., & Mughal, M. (2013). The Role of Diaspora in Attracting Indian Outward FDI. *International Journal of Social Economics*, 40, 944-955. <https://doi.org/10.1108/ijse-11-2011-0083>
- Baghdadi, L., & Cheptea, A. (2010). Migrant Associations, Trade and FDI. *Annals of Economics and Statistics*, No. 97/98, 71-101. <https://doi.org/10.2307/41219110>
- Barkema, H. G., Bell, J. H. J., & Pennings, J. M. (1996). Foreign Entry, Cultural Barriers, and Learning. *Strategic Management Journal*, 17, 151-166. [https://doi.org/10.1002/\(sici\)1097-0266\(199602\)17:2<151::aid-smj799>3.0.co;2-z](https://doi.org/10.1002/(sici)1097-0266(199602)17:2<151::aid-smj799>3.0.co;2-z)
- Bhardwaj, A., Dietz, J., & Beamish, P. W. (2007). Host Country Cultural Influences on Foreign Direct Investment. *Management International Review*, 47, 29-50. <https://doi.org/10.1007/s11575-007-0003-7>
- Blomkvist, K., & Drogendijk, R. (2016). Chinese Outward Foreign Direct Investments in Europe. *European J. of International Management*, 10, 343-358. <https://doi.org/10.1504/ejim.2016.076242>
- Buch, C. M., Kleinert, J., & Toubal, F. (2006). Where Enterprises Lead, People Follow? Links between Migration and FDI in Germany. *European Economic Review*, 50, 2017-2036. <https://doi.org/10.1016/j.euroecorev.2005.11.002>
- Chen, S., Lin, Y., Zhu, X., & Akbar, A. (2019). Can International Students in China Affect Chinese OFDI—Empirical Analysis Based on Provincial Panel Data. *Economies*, 7, Article 87. <https://doi.org/10.3390/economies7030087>
- De Simone, G., & Manchin, M. (2012). Outward Migration and Inward FDI: Factor Mobility between Eastern and Western Europe. *Review of International Economics*, 20, 600-615. <https://doi.org/10.1111/j.1467-9396.2012.01041.x>
- Flores, R. G., & Aguilera, R. V. (2007). Globalization and Location Choice: An Analysis of US Multinational Firms in 1980 and 2000. *Journal of International Business Studies*, 38, 1187-1210. <https://doi.org/10.1057/palgrave.jibs.8400307>
- Gao, T. (2003). Ethnic Chinese Networks and International Investment: Evidence from Inward FDI in China. *Journal of Asian Economics*, 14, 611-629. [https://doi.org/10.1016/s1049-0078\(03\)00098-8](https://doi.org/10.1016/s1049-0078(03)00098-8)
- Helpman, E., Melitz, M. J., & Yeaple, S. R. (2004). Export versus FDI with Heterogeneous Firms. *American Economic Review*, 94, 300-316. <https://doi.org/10.1257/000282804322970814>
- Kugler, M., & Rapoport, H. (2007). International Labor and Capital Flows: Complements or

- Substitutes? *Economics Letters*, *94*, 155-162.  
<https://doi.org/10.1016/j.econlet.2006.06.023>
- Liu, K., & Song, Z. Q. (2021). The Economic Dividend of “Study in China”: How Foreign Students in China Promote China’s OFDI. *Education and Economy*, *37*, 21-30. (In Chinese)
- López-Duarte, C., & Vidal-Suárez, M. M. (2010). External Uncertainty and Entry Mode Choice: Cultural Distance, Political Risk and Language Diversity. *International Business Review*, *19*, 575-588. <https://doi.org/10.1016/j.ibusrev.2010.03.007>
- Murat, M. (2014). Out of Sight, Not Out of Mind. Education Networks and International Trade. *World Development*, *58*, 53-66. <https://doi.org/10.1016/j.worlddev.2013.12.013>
- Murat, M. (2017). *Foreign Aid and Asylum Immigration. Does Development Matter?* Recent Working Paper Series.
- Qadeer, T., Javed, M. K., Manzoor, A., Wu, M., & Zaman, S. I. (2021). The Experience of International Students and Institutional Recommendations: A Comparison between the Students from the Developing and Developed Regions. *Frontiers in Psychology*, *12*, Article 667230. <https://doi.org/10.3389/fpsyg.2021.667230>
- Quer, D., Claver, E., & Rienda, L. (2012). Political Risk, Cultural Distance, and Outward Foreign Direct Investment: Empirical Evidence from Large Chinese Firms. *Asia Pacific Journal of Management*, *29*, 1089-1104. <https://doi.org/10.1007/s10490-011-9247-7>
- Song, H. (2011). Chinese Private Direct Investment and Overseas Chinese Network in Africa. *China & World Economy*, *19*, 109-126.  
<https://doi.org/10.1111/j.1749-124x.2011.01253.x>
- Sun, C. R., He, R., & Liu, Y. Y. (2021). Aid to Africa and Outward FDI of Chinese Enterprises. *China Industrial Economy*, No. 3, 99-117. (In Chinese)
- Tian, L., & Liu, N. C. (2021). Inward International Students in China and Their Contributions to Global Common Goods. *Higher Education*, *81*, 197-217.  
<https://doi.org/10.1007/s10734-020-00522-5>
- Treviño, L. K., Butterfield, K. D., & McCabe, D. L. (1998). The Ethical Context in Organizations: Influences on Employee Attitudes and Behaviors. *Business Ethics Quarterly*, *8*, 447-476. <https://doi.org/10.2307/3857431>
- Wang, H. Y. (2017). Give Full Play to the Important Role of Overseas Students to Promote Win-Win Cooperation in the “Belt and Road”. *International Students*, No. 11. (In Chinese)
- Yang, Y., Liang, C., & Hu, Y. (2018). A Study on the Impact of Cultural Distance on the Operating Performance of Chinese Outward Direct Investment Enterprises: An Empirical Analysis Based on Micro-Data from Listed Manufacturing Companies. *International Trade Issues*, No. 6, 27-40. (In Chinese)
- Yue, M. (2018). *Study on Foreign Student Education in China and China’s OFDI to Countries along “The Belt and Road”*. Master’s Thesis, Beijing Foreign Studies University. (In Chinese)
- Zhang, J. P., & Li, N. (2014). Culture Distance, Overseas Chinese Network and China Enterprise Overseas Investment Location Selection. *Special Zone Economy*, No. 1, 93-95. (In Chinese)
- Zhao, C. M., Ma, L., & Li, Z. (2021). International Talent Mobility and China’s Outward Direct Investment: An Empirical Study Based on the Perspective of African Students Studying in China. *Journal of Tianjin University of Commerce*, *41*, 11-19. (In Chinese)
- Zhu, J. J. (2019). *The Impact of International Students’ Education on My Country’s OFDI: An Analysis Based on Provincial Panel Data*. Master’s Thesis, Nanjing University of Science and Technology. (In Chinese)