

Research on the effect of China's direct investment on countries along the Belt and Road based on RMB internationalization

Abstract:

Over the past decade or so, China has steadily and prudently promoted the internationalisation of the RMB on the basis of market- and enterprise-driven decisions, providing strong support for the smooth operation of the real economy.²⁰²² The report of the 20th Party Congress proposed "orderly promotion of the internationalisation of the RMB". This indicates that the RMB has moved from a cautious stage of exploration and experience accumulation to a new stage of system design and action. This indicates that the internationalisation of the RMB has moved from the cautious stage of exploration and accumulation of experience to the new stage of orderly promotion of institutional design and action. Therefore, this paper adopts a linear and non-linear approach to construct a regression model to empirically analyse the impact of RMB internationalisation on China's outward foreign direct investment (OFDI) along the "Belt and Road". The results show that RMB internationalisation has a positive impact on China's outward FDI along the Belt and Road, and this impact varies with the increase in geographical distance; secondly, RMB internationalisation may also affect outward FDI by affecting foreign trade. This paper suggests that China should seize the opportunity of the development of the Belt and Road strategy and use RMB internationalisation to promote OFDI in countries along the Belt and Road, expand bilateral foreign trade and achieve common development.

Key words: OFDI; RMB internationalization; The Belt, Road

1 Introduction

The internationalisation of the RMB is an important factor in the sustainable development of China's economy and a sign that China's economy is becoming global and stronger. Promoting the internationalisation of the RMB will help the RMB to go global, which in turn will help Chinese multinational enterprises to ease their financing constraints and increase their outward foreign direct investment (OFDI). In addition, in recent years, China has accelerated the implementation of the "going out" strategy, and OFDI, as an important part of China's "going out" strategy, will be

conducive to the integration of China's national economy into the benign track of the internal and external double cycle, and will also effectively promote the optimisation and adjustment of China's industrial structure.

On the one hand, the supply and demand of reserve currencies in the current international monetary system is facing the danger of asymmetry, and the internationalisation of the RMB will greatly alleviate this crisis, so a stable international monetary system also requires the internationalisation of the RMB. On the other hand, in the exploration of the new round of RMB internationalisation mode, investment-driven and first peripheralisation and regionalisation have gradually become the consensus, and "One Belt, One Road", as a pivotal step in China's "going out" strategy, has seen a steady increase in the stock of China's foreign investment since its introduction. Since its introduction, China's outward investment stock has been growing steadily[16-18]. China has signed bilateral investment agreements with more than 100 countries along the route, and has established financial service institutions such as the Silk Road Fund and the Asian Investment Bank to solve the problem of capital financing, promote outward direct investment and financial cooperation, and then steadily realise the convertibility of the RMB's capital account, and vigorously push forward the internationalisation of the RMB.

2 Literature review

In recent years, with the deepening of China's open-door policy, especially the in-depth promotion of the "One Belt, One Road" initiative, domestic enterprises have accelerated the pace of "going out", and with the accelerated internationalisation of the RMB, OFDI has also increased dramatically. The theory of currency internationalisation and OFDI corresponds to the theory of international finance and international factor mobility, so this paper discusses the following three aspects after sorting out the existing literature.

2.1 Internationalisation of the Renminbi (RMB)

In recent years, with the growth of China's economy and the enhancement of its global market position, the demand for the RMB both domestically and abroad has been gradually increasing (Cheung, 2021), and the internationalisation of the RMB has gradually become a hot topic for research, with scholars analysing the issue based on different perspectives and arriving at different

conclusions. Brummer (2017) argues that the RMB's internationalisation is being pursued in a way that is different from historical precedents and predicted by traditional macroeconomic theories, and the development of this monetary strategy will bring new systemic risks to the global financial system, including the risk of RMB liquidity tension. Zhang & Zhang (2017) show that due to deleveraging and downward adjustments in the real estate market, the development of RMB internationalisation will inevitably lead to an increase in cross-border arbitrage activities, which will in turn increase in risk.

The International Monetary Fund announced the inclusion of the RMB in the Special Drawing Rights basket of currencies in 2016, which made the RMB gradually become an important choice of foreign exchange assets for neighbouring countries and regions, and the international demand for the RMB showed a rising trend. Subsequently, many banks and research institutes have begun to construct and calculate RMB internationalisation indices, including the RMB Global Index (RGI) released by Standard Chartered Bank, the RMB Internationalisation Index (CRI) released by the People's Bank of China and the RMB Internationalisation Index (RII) released by the Institute for Monetary Research of Renmin University of China, all of which have shown a fluctuating upward trend in the internationalisation level of the RMB. Taking all factors into consideration, the RMB Internationalisation Index (RII) compiled by the People's University of China is chosen as a proxy variable for the level of RMB internationalisation, and its changes are shown in Figure 1 below.

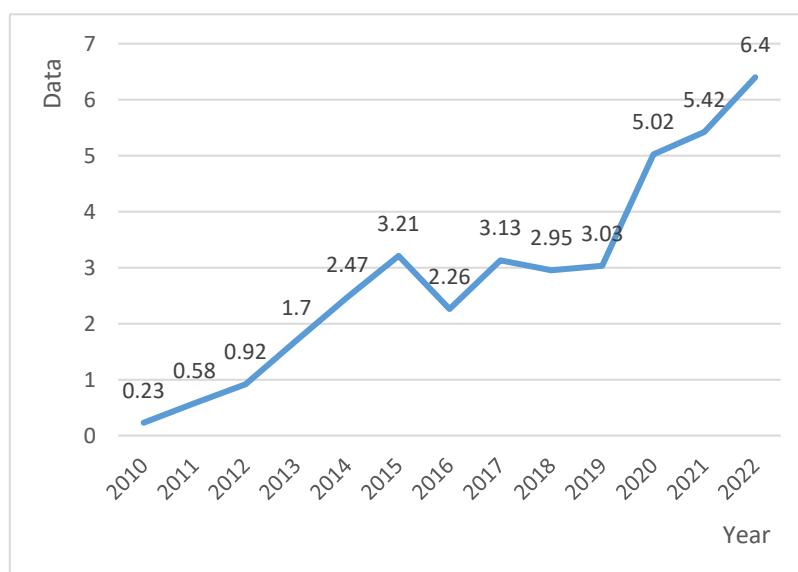


Figure 1. RMB Internationalisation Index Chart

Data Source: 《RMB Internationalization Report 2011-2013》

2.2 Foreign direct investment

With the development of economic globalisation, factor flows between countries around the world have become increasingly close, and outward investment has gradually become an indispensable part of the process of international cooperation. In the 1970s, Knickerbocker put forward the theory of oligopoly reflection, in which he believed that maintaining the equilibrium among oligopolistic enterprises was the motive for OFDI. Some scholars have also found that there is an effect between OFDI and foreign trade. Mundell (1957) suggested through the H-O trade model that direct investment has a substitution effect on export trade; while Lipsey and Weiss (1981), Wong and Goh (2013) and others argue that OFDI has a complementary effect on home country's exports. In recent years, both China's OFDI and exports have grown, but there are differences in the growth trajectories of the two, so it is still controversial whether OFDI promotes or substitutes for exports. Studying the influencing factors of China's OFDI is of great significance to optimise the layout and structure of China's OFDI, and to improve the efficiency and profitability of China's OFDI.

2.3 Research on the relationship between RMB internationalization and China's OFDI

International capital and other elements in the cross-border flow, often inseparable from the help of the international currency, and the international currency in the international investment in an important intermediary function; Conversely, the internationalisation process of the currency also needs to be promoted through cross-border investment and cross-border trade and other channels, can be seen that the two have a close relationship.

Most of the literature on the relationship between RMB internationalisation and China's OFDI focuses on the impact of China's OFDI on the internationalisation of the RMB, and most scholars believe that China's OFDI is an important influencing factor in promoting the internationalisation of the RMB. Most scholars believe that OFDI can expand the internationalisation of the currency, the international trade surplus brings huge foreign exchange reserves, which accumulates funds for the country's OFDI, and with the continuous appreciation of the local currency, local investors prefer to use the local currency for OFDI, which increases the stock and flow of the local currency outside the country, and thus improves the degree of internationalisation of the currency. But at the same time, on the one hand, the internationalisation of the RMB will also reduce the cost of OFDI and

promote the development of OFDI; on the other hand, the internationalisation of the RMB can benefit China's outward investing enterprises and exporters by allowing them to be denominated in RMB and to have better access to the global market, which will improve their international competitiveness, but at the same time, this will require the RMB's exchange rate to be marketised, which may increase the exchange rate risk. (He,Q.2021b.)

3 Theoretical mechanism

3.1 The direct impact of RMB internationalization on China's OFDI

As we all know, whether foreign or domestic, capital adequacy is the lifeblood of the country's economic market and the foundation of its continuous operation. As the level of RMB internationalisation increases, not only can it effectively reduce its investment cost, but its solvency and liquidity also provide a strong guarantee for the development of China's outward investment, i.e. RMB internationalisation creates convenient conditions for outward FDI and promotes the rapid development of China's outward FDI. Its direct impact can be explored from the following two aspects: first, Joseph Ritch Helbing (2013) believes that the internationalisation of the RMB can reduce the exchange rate risk of cross-border investment, when trading in the foreign exchange market, in order to hedge the exchange rate risk of the transaction process, domestic investors need to pay a great deal of manpower and material costs, but if you can directly use the RMB for trading and Settlement, not only can reduce costs [Sauvant & Davies], but also reduce the expenditure of handling fees. Secondly, Li & Rengifo (2018) argued that the increased demand for the use of the RMB internationally promotes the appreciation of the RMB exchange rate, implying that a relative increase in the wealth of firms in the investing countries denominated in RMB will be favourable to OFDI. Based on this, the first hypothesis is proposed.

H1: The increase in the level of RMB internationalisation has a positive effect on OFDI.

Due to the differences in the endowment conditions of the countries along the Belt and Road, the functioning of the RMB internationalisation regulation may also be affected. On the one hand, according to Kojima's theory of outward foreign direct investment (OFDI), OFDI can be classified into market-seeking, efficiency-seeking, resource-seeking, etc. Based on the differences in the state of economic development and resource endowment of the countries along the Belt and Road, the purpose of China's investment in these countries is also different. On the other hand, the difference

in trade distance between different countries will also have an impact on their investment. Based on this, the second hypothesis is proposed.

H2: The positive effect of increased RMB internationalisation on OFDI will vary depending on the economic base of the host country and the distance.

3.2 RMB internationalization, export trade effect and OFDI

According to Kojima's (1978) theory of marginal industrial transfer, there is a complementary relationship between RMB internationalisation and international trade, and an increase in the level of RMB internationalisation can increase the trade creation effect between China and the host countries and expand the opportunities and scale of foreign trade, which in turn promotes the development of outward foreign direct investment. The mechanism of RMB internationalisation's effect on China's trade with countries along the Belt and Road may be accomplished through the following two ways. First, a higher level of RMB internationalisation will promote export trade to a certain extent, while a high level of RMB internationalisation can reduce the constraints of multinational corporations (MNCs) in developing in the host country's market due to factors such as operating costs and competition, which will enable MNCs and organisations to make different choices when investing in the host country, plus the willingness to use the RMB caused by the profile factors, which will then affect the Chinese OFDI. Second, the development of RMB internationalisation will, to a certain extent, have an impact on China's export creation mechanism. Specifically, when the RMB is more and more recognised in the international market, the preference of countries along the Belt and Road for Chinese products will also increase, at which point Chinese investment in them will also play a role to a greater extent. Based on this, a third hypothesis is proposed.

H3: The level of RMB internationalisation will indirectly increase China's OFDI through the effect of increased foreign export trade.

4 Empirical analysis

The first half of the article starts with a study of the relevant supporting theories, explores the hypotheses related to RMB internationalisation and China's OFDI to countries along the Belt and Road, and analyses the current status of its development on the basis of the existing data. This chapter constructs an appropriate regression model for empirical analyses based on the research

hypotheses proposed in the previous chapter.

4.1 Model Construction

4.1.1 Reference regression model

Reference to the existing literature on the trade effect of investment can be found, different scholars use a variety of research methods, but in summary, most empirical research is carried out on the basis of gravity model, the early use of gravity model research problems, Tinbergen (1962) and Pyhnen (1963) proposed to use the economic size and spatial distance to construct gravity model, since then gravity model has been formally used in trade research since then. In this paper, the internationalisation level of RMB is taken into account, and the following regression model is constructed to investigate the effect of RMB internationalisation on China's OFDI on the basis of improving the traditional gravity model.

$$\ln OFDI_{it} = \alpha_0 + \alpha_1 RII_t + \alpha_2 \ln OPEN_{it} + \alpha_3 Dis_{it} + \varepsilon_{it} \quad (1)$$

In the above model: $\ln OFFDI_{it}$ is the logarithmic value of China's direct investment in the Belt and Road i countries, RII_t denotes the degree of RMB internationalisation, $\ln OPEN_{it}$ is the logarithmic value of trade openness of Belt and Road i countries at time t , Dis_{it} is the distance variable, which is calculated by Di and Tit , where Di is the geographic distance between China and country i along the Belt and Road, and Tit is the volume of trade between China and the countries along the Belt and Road at time t , and ε_{it} is the random error term.

4.1.2 Intermediate effect model

The causal stepwise regression method (Baron & Kenny, 1986) was used to analyse the mediating effect and the regression model was constructed as follows:

$$\ln OFDI_{it} = \alpha_0 + \alpha_1 RII_t + \varepsilon_{1t} \quad (2)$$

$$\ln EX_{it} = \alpha_0 + \alpha_1 RII_t + \varepsilon_{2t} \quad (3)$$

$$\ln OFDI_{it} = \alpha_0 + \alpha_1 RII_t + \alpha_2 \ln EX_t + \varepsilon_{3t} \quad (4)$$

In the above model: $\ln OFFDI_{it}$ is the logarithmic value of China's direct investment in the Belt and Road i countries, RII_t denotes the degree of RMB internationalisation, $\ln EX_{it}$ is the logarithm of the amount of China's export trade to the Belt and Road i countries. ε_{1t} , ε_{2t} , ε_{3t} are the random error terms of model (2) (3) (4), respectively.

4.2 Variable selection and data source

In this paper, the data of China and 141 countries along the Belt and Road for the period 2010-2022 will be selected as a sample based on the research and data availability to ensure sufficient sample observations. The data of China's OFDI stock to the countries along the Belt and Road is chosen as the explanatory variable, and the RMB internationalisation index RII is chosen as the core explanatory variable. In addition, other factors that may affect China's OFDI to the countries along the Belt and Road, such as the degree of trade openness of the host country OPEN, the trade distance between China and the capital of the host country DIS, and the level of the host country's own economic development INGDP, are chosen as control variables.

4.2.1 Explained variable

Compared with OFDI flow data, stock data fluctuates less, and the selection of this data can often get more stable and reliable analysis results, therefore, this paper chooses the stock data of China's direct investment in countries along the Belt and Road (OFDI) to measure the level of China's outward foreign direct investment, and natural logarithmic treatment of the data (lnOFDI). The data comes from the official website of National Belt and Road.

4.2.2 Core explanatory variable

The 2016 announcement by the International Monetary Fund (IMF) of the inclusion of the RMB in the new Special Drawing Rights (SDR) basket of currencies reflects the rising status of the RMB in the international monetary system, which is conducive to the establishment of a more robust international monetary and financial system. With the increasing level of RMB internationalisation, many banks and financial institutions have begun to construct and calculate RMB internationalisation indices, and this paper chooses the RMB Internationalisation Index (RII) compiled by the Institute of Monetary Research of Renmin University of China as the core explanatory variable. The specific index system of the RII index is shown in Table 1 below.

Table 1 Index System of RMB Internationalization

Primary index	Secondary index	Three-level index	Index interpretation
International pricing	Trade	Share of RMB trade settlement	Ratio of RMB cross-border trade volume to total world import and export trade volume
		Share of RMB Credit	Ratio of RMB foreign credit to global foreign credit
Payment function	Finance	RMB Bonds and Notes Weighting	Ratio of RMB international bond and note issuance to global

			issuance
		Share of RMB Bonds and Notes Balance	Ratio of RMB international bonds and notes to global balance
		Share of RMB direct investment	Ratio of RMB direct investment to global direct investment
International reserve	Official reserve	Share of RMB Reserves	Ratio of RMB official reserves to global foreign exchange reserves

Data Source: 《RMB Internationalization Report 2012》

4.2.3 Intermediate variable

In this paper, China's export trade volume (EX) to countries along the Belt and Road is chosen as the mediating variable to indicate the scale of China's export trade to countries along the Belt and Road. In the regression of mediating effect, it needs to be processed in natural logarithm, and the processed data is denoted by $\ln EX$. The data are obtained from the official website of the National Belt and Road Programme.

4.2.4 Other control variables

The degree of trade openness of the host country (OPEN), the level of economic development of the host country ($\ln GDP$), and the trade distance between the home country and the host country (Dis) were selected based on the completeness and availability of data. The degree of trade openness of the host country (OPEN) is chosen as the proportion of the annual import and export amount of the countries along the Belt and Road to the total GDP of that year, and the data are obtained from the official website of the Belt and Road and the CEIC database; the level of economic development of the host country ($\ln GDP$) reflects the degree of economic development of the host country, and the data are obtained from the official website of the IMF; and the distance of trade between the home and host countries (Dis) is chosen as the distance (D) between the capitals of China and the countries along the Belt and Road. The trade distance between the home country and the host country (Dis) is the ratio of the distance between the capitals of China and the countries along the Belt and Road (D) and the trade size (T), which is used to measure the trade distance between the two countries, and the data is obtained from the database of the French Institute for International Economic Studies (IFIE) CEPII.

4.2.5 Descriptive statistics

This subsection does descriptive statistics on the variables selected for the article, and the

results are shown in the following table. It can be seen that, except for the relatively large standard deviation of the two indicators of China's outward foreign direct investment and trade distance, the standard deviation between the other variables is lower than 2, which indicates that the degree of dispersion of the data selected in this article is small and no outliers are found.

Table 2 Descriptive Statistics of Variables

Variable symbol	Variable Name	Observed value	Mean value	Standard deviation	Minimum value	Maximum value
	China's Outward					
lnOFDI	Foreign Direct Investment	1833	9.716	2.432	2.485	15.810
RII	Level of RMB internationalisation	1833	2.871	1.792	0.230	6.400
lnEX	Export Trade	1833	11.705	2.039	4.885	16.594
lnGDP	Level of Economic Development	1833	14.945	1.925	9.651	19.251
OPEN	Trade Openness	1833	0.111	0.169	0.001	2.212
Dis	Trade Distance	1833	3.280	7.412	0.006	47.681

4.3 Model regression and empirical analysis

4.3.1 Analysis of baseline regression results

Prior to the regression analyses, both the Hausmann test and the F-test concluded that the fixed effects in the benchmark regression were superior to the random effects, but their estimation results will not be reported in detail here. Therefore, the results of the benchmark regression are shown in Table 3.

Table 3 Benchmark Regression Results

	(1)	(2)	(3)	(4)	(5)
	lnOFDI	lnOFDI	lnOFDI	lnOFDI	lnOFDI
RII	0.282*** (4.698)	0.284*** (13.640)	0.279*** (13.13)	0.246*** (10.281)	0.227*** (9.226)
OPEN			0.250* (1.791)	0.855* (1.709)	0.205* (1.350)
lnGDP				0.382*** (2.691)	0.274* (1.957)
Dis					-0.116* (-1.420)
Costant	8.905*** (13.715)	9.312*** (15.548)	9.317** (1.806)	3.810* (1.866)	3.087* (1.556)
Year FE	No	Yes	Yes	Yes	Yes

Country FE	No	Yes	Yes	Yes	Yes
N	1833	1833	1833	1833	1833
Adjusted_R2	0.043	0.914	0.731	0.915	0.916

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$; t statistics in parentheses

Table 3 reports the results of the benchmark regressions: in columns (1) and (2), the coefficients of the regressions of China's direct investment in countries along the Belt and Road using only the level of RMB internationalisation are positive and significant at the 1% level, which indicates that there is a significant complementary effect between the increase in the level of RMB internationalisation and China's direct investment in countries along the Belt and Road. To explore the reasons for this, on the one hand, the internationalisation of the RMB is increasing, and the RMB is more often chosen as the currency of outward investment when trade settlement is made internationally; on the other hand, when China's OFDI increases, the depth and breadth of RMB's use in the international market will also increase. Continuing the regression after adding other control variables, the results obtained are still significant, indicating that the increase in the level of RMB internationalisation indeed helps to enhance China's OFDI effect on countries along the Belt and Road. The estimated coefficients of the level of RMB internationalisation (RII) in Column (3), Column (4) and Column (5) are significantly positive in the regression, which suggests that the continuous advancement of the RMB internationalisation process has a significant creation effect on China's OFDI. Finally, from the regression results of each control variable, the increase of bilateral distance has a certain impact on China's OFDI, which is due to the increase of trade distance raises the cost of investment, and thus has a certain negative impact; while the increase of trade openness can help to enhance China's OFDI, which in turn verifies Hypothesis 1 and Hypothesis 2.

4.3.2 Intermediate effect regression results

From the regression results of mediated effects in Table 4, columns (1), (2) and (3) are the results measured by the mediating variable of the effect of China's export trade to the countries along the Belt and Road, in which the coefficient of column (1) is 0.137 and significant at the 1% level, which indicates that the enhancement of the internationalisation of the RMB can promote the development of the effect of China's export trade, while the coefficient of column (2) is 0.282 and significant at the 1% level, which indicates that the enhancement of the internationalisation of the RMB can promote the development of China's OFDI, while the coefficient of column (3) is 0.182.

The coefficient of column (2) is 0.282 and significant at the 1% level, which indicates that the increase of RMB internationalisation can promote the development of China's OFDI; while the coefficient of column (3) is 0.182 and significant at the 1% level, which indicates that the increase of RMB internationalisation can promote the development of China's OFDI through the increase of export trade effect. In short, the increase of RMB internationalisation can act on China's OFDI through the indirect effect, i.e., the mediating variable export trade effect has a significant indirect effect on China's OFDI. The validity of Hypothesis 3 is verified.

Table 4 Intermediate Regression Results

	(1)	(2)	(3)
	lnEX	lnOFDI	lnOFDI
RII	0.137*** (5.2072)	0.282*** (9.1029)	0.182*** (7.4341)
lnEX			0.733*** (34.1580)
Costant	11.310*** (126.6295)	8.905*** (84.8234)	0.610** (2.3795)
N	1833	1833	1833
Adjusted_R2	0.015	0.043	0.415

Note: * p<0.1, ** p<0.05, *** p<0.01; t statistics in parentheses

4.4 Robustness test

4.4.1 Alternate explanatory variable

The core explanatory variable selected in this paper is the Renminbi Internationalisation Index (RII) compiled by the Institute of Monetary Research of Renmin University of China, and the regression results show that as the level of internationalisation of the Renminbi rises the promotion of China's OFDI, but whether it is the Renminbi Internationalisation Index or the Institute of International Economic Development (IED) that has a promotion of China's OFDI is not known, so in order to solve this problem, it is considered to use the Therefore, in order to solve this problem, we consider using the RMB Global Index (RGI) produced by Standard Chartered Bank to replace the original index and re-examine the regression test, and the results are shown in Table 5 below. The results of columns (1) and (2) in Table 5 show that the internationalisation of RMB still has a significant positive impact on China's OFDI at the 1% level, which confirms the robustness of the above benchmark regression results.

4.4.2 Double clustering adjustment

Referring to Petersen's (2009) methodology, this paper applies a double clustering adjustment to the robust standard errors of the benchmark regressions at the firm and year level. Column (4) of the table below shows the significance level of the regression coefficients of RII after the cluster adjustment, and there is no significant change from the regression result column (3), so it can be confirmed that the results of the benchmark regression above are robust.

Table 5 Robustness Test Results

	(1)	(2)	(3)	(4)
	lnOFDI	lnOFDI	lnOFDI	lnOFDI
RGI	0.588*** (16.111)	0.496*** (13.640)		
RII			0.282*** (4.698)	0.284*** (13.640)
Costant	5.444*** (16.519)	7.092*** (29.980)		
Year FE	No	Yes	No	Yes
Country FE	No	Yes	No	Yes
N	1833	1833	1833	1833
Adjusted_R2	0.048	0.914	0.043	0.914

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$; t statistics in parentheses

4.4.3 Endogeneity test

From a risk perspective, RMB internationalisation can promote the development of OFDI in China, but at the same time, Dierk Herzer (2010) argues that OFDI has a significant positive impact on RMB internationalisation, which is a new driving force for the deeper development of RMB internationalisation. In order to solve the endogeneity bias caused by the above two-way causality, referring to Arellano & Bond (1991), this paper selects the core explanatory variable of the lagged one period as an instrumental variable, and uses the GMM method to test it.

According to Table 6, columns (1) and (2) represent the estimation results obtained by the two methods of differential GMM and systematic GMM, respectively. Compared with the baseline regression, the coefficients sign and significance of the core explanatory variables and the other control variables remain the same, which indicates that the hypothesised model of this paper can exclude the interference of the endogeneity problem to a certain extent. In the column regression results, the coefficients of lnOFDI are all significantly positive, which further proves that the

increase in the level of RMB internationalisation leads to the expansion of the investment market demand and promotes the development of China's OFDI.

Table 6 GMM Estimation Results

	(1)	(2)
lnOFDI	0.976*** (381.833)	0.973*** (54.367)
RII	0.059*** (32.899)	0.059*** (3.553)
OPEN	0.084* (7.023)	0.109* (0.837)
LnGDP	0.044* (9.445)	0.046* (1.467)
Dis	-0.001* (-0.672)	-0.001* (-0.071)
Costant	0.077* (0.176)	0.077* (1.193)
N	1692	1692

Note: * p<0.1, ** p<0.05, *** p<0.01; t statistics in parentheses

5 Conclusion

Based on the analysis of the impact path of RMB internationalisation on direct investment in the countries along the Belt and Road, this paper empirically analyses the impact of RMB internationalisation on outward direct investment in the context of the Belt and Road, and the results show that: there is a positive promotion effect on direct investment in the countries along the Belt and Road, and this effect varies with geographic distance. The results show that RMB internationalisation has a positive effect on the direct investment of the countries along the route, and this effect varies with the geographical distance. On the other hand, due to the low level of RMB internationalisation in China, the development effect of China's direct investment in the countries along the routes is not obvious, and there is still much room and potential for development, and when the development reaches a certain level, the outward direct investment can also be counteracted by RMB internationalisation. Secondly, the internationalisation of RMB can also promote the development of OFDI through its effect on foreign trade. As the level of RMB internationalisation increases, more and more countries choose RMB as the settlement currency, which in turn promotes the foreign export, and the increase in the volume of foreign export trade reserves more international currencies for the country, which in turn promotes China's OFDI.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of manuscripts.

Option 2:

Author(s) hereby declare that generative AI technologies such as Large Language Models, etc have been used during writing or editing of manuscripts. This explanation will include the name, version, model, and source of the generative AI technology and as well as all input prompts provided to the generative AI technology

Details of the AI usage are given below:

- 1.
- 2.
- 3.

References:

- [1]He, Q., Liu, J., Zhang, C., 2021b. Exchange rate exposure and its determinants in China. *China Econ. Rev.* 65, 101579.
- [2]Cheung, Y.-W., 2021. A decade of RMB internationalisation. *Econ. Polit. Stud.* 1–28.
- [3]Mundell R A. International Trade and Factor Mobility[J]. *The American Economic Review*, 1957, 47(3).
- [4]Lipsey R. E., Weiss M Y.. Foreign Production and Exports in Manufacturing Industries[J]. *Review of Economics & Statistics*, 1981, 63(4):488-494.
- [5]Wong K. N., Goh S. K.. Outward FDI, Merchandise and Services Trade: Evidence from Singapore[J]. *Journal of Business Economics & Management*, 2013, 14(2):276-291.
- [6]Brummer C. 2017 .The renminbi and systemic risk[J]. *Journal of International Economic Law*,20(3):447-507.
- [7]Zhang M,Zhang B. 2017 .The boom and bust of the RMB’s internationalization:A perspective from cross-border arbitrage[J]. *China&World Economy*, 20(5):63-82.
- [8]Kojima K.Direct foreign investment:Japanses model versus American modle[M]. New York Praeger Publisher,1978:83-102.
- [9]Sauvant K P,Davies K. What will an appreciation of China’s currency do to inward FDI?[J]. *Transnational Corporations Review*, 2010,91(2).
- [10]Li Y, Rengifo E W. The impact of institutions and exchange rate volatility on China’s outward FDI[J]. *Emerging Markets Finance and Trade*,2018,54(12):2778-2798.
- [11]Petersen M A.Estimating standard errors in finance panel data sets:Comparing approaches[J]. *The Review of Financial Studies*,2009,22(1):435-480.

- [12]Dierk Herzer.Outward FDI and economic growth[J]. Journal of Economic Studies,2010,37(5).
- [13]Arellano M,Bond S R.Arellano,B.:Some Tests of Specification for Panel Data:Monte Carlo Evidence and an Application to Employment Equations. The Review of Economic Studies 58(2), 277-297[J]. Review of Economic Studies,1991,58(2):277-297.
- [14]Tinbergen J. Shaping the world economy: a suggestions for an international economic policy by Jan Tinbergen[J]. 1962.
- [15]Pyhnen P. A Tentative Model for the Volume of Trade between Countries [J]. Weltwirtschaftliches Archiv, 1963, 90: 93-100.
- [16]Islam MM. The Role of Foreign Direct Investment (FDI) Inflows on Export Performance in Developing Economies: Evidence from Bangladesh. S. Asian J. Soc. Stud. Econ. [Internet]. 2022 Dec. 6 [cited 2024 May 31];16(3):49-57. Available from: <https://journalsajsse.com/index.php/SAJSSE/article/view/615>
- [17]Stephen Idenyi O, Charity Ifeyinwa A, Johnson Obinna N, Agbi Promise E. Impact of Foreign Direct Investment on Stock Market Growth in Nigeria. Asian Res. J. Arts Soc. Sci. [Internet]. 2016 Aug. 13 [cited 2024 May 31];1(2):1-14. Available from: <https://journalarjass.com/index.php/ARJASS/article/view/134>
- [18]Zhang F, Yu M, Yu J, Jin Y. The effect of RMB internationalization on belt and road initiative: Evidence from bilateral swap agreements. Emerging Markets Finance and Trade. 2017 Dec 2;53(12):2845-57.