

Political Embeddedness, Trade Gravity and Goods Export—Empirical Evidence from China and RCEP Trade Partners

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Abstract

This paper constructs an expanded multilevel trade gravity model and uses multilevel statistical analysis methods to research the mechanism of political embeddedness, trade gravity and China's influence on the export flows of goods trade in RCEP trading partners. Our research found that the political embeddedness scenes of trade activities in various countries have significant Heterogeneity, and the resistance effect of trade distance on trade export flows is not significant, and the variable that actually plays the role of trade resistance is the gap between political embeddedness scenes and per capita gross national income levels of China and RCEP member states, and political embeddedness. The resistance effect of the political embeddedness scene difference mainly depends on two indirect ways of restraining the positive impact of the size of the trading country's economy scale on its export flows and the positive impact of the economic scale of the trading countries on their import flows. The results of the robustness test indicate that the research conclusions in this paper are robust. Therefore, China is striving for RCEP's discourse dominance to hedge the trade resistance brought about by the differences in political embeddedness scenes, to reduce transportation costs by exploiting geographical advantages, and to actively build multinational industrial chains by leveraging the infrastructure investment opportunities of the "Belt and Road" strategy. Accelerate the promotion of high-quality growth of the Chinese economy.

Keywords: Political embeddedness; Multilevel trade gravity model; RCEP framework; China's foreign trade strategy.

I. The proposal of the Problem

After entering the 21st century, China has accelerated the pace of participation in the world regional economic cooperation organizations, and continuously strengthened international economic cooperation. At the same time, the trade frictions between China and the United States in trade disputes that began in early 2018 also forced China to seek new breakthroughs in regional economic cooperation. Among them, participating in the Regional Comprehensive Economic Partnership (RCEP) is an important initiative for China to participate in regional economic cooperation, which is initiated by 10 ASEAN countries and involves China, Japan, South Korea, Australia, New Zealand and India ("10 + 6") to establish free trade agreements for 16 countries to unify markets by reducing tariff and non-tariff barriers.

Since 2017, the RCEP negotiation process began to speed up in 2012. At present, the 16 countries have completed seven chapters of consultations, and the completion of the negotiation task has increased to nearly 80 %. Especially in November 2018, Premier Li Keqiang appealed at the second RCEP Leaders' Meeting held in Singapore : "Now the RCEP negotiations have reached a critical period, and cannot be stopped, otherwise it may fail. We must keep the positive momentum and strive to reach an agreement next year. At the same time, Prime Minister Li Keqiang also stressed: "The development level and interest demands of RCEP members are different, and there are also domestic legal and political factors. We should seek truth from facts and take care of the comfort of countries, but we should have a long-term perspective, which is to promote trade and investment liberalization and

facilitation.”¹

It is obvious that one of the most important objectives of RCEP is to promote trade liberalization and facilitation among participating countries, and that trade in goods, as an important part of the trade framework between China and RCEP trading partners, will provide better platforms and more opportunities for China's trade in goods if agreed. At the same time, most of the East Asian economies implement export-oriented strategies. Since the 2008 financial crisis, the global market has not fully recovered. The success of RCEP negotiations will also provide more broad and diversified markets for East Asian economies

(Shen Minghui, 2018)[1]. However, the development level and interest demands of RCEP member countries are different, and there are also constraints from domestic legal and political aspects and management systems. In particular, while the current global economy is improving, trade protectionism is rising, with a slight populist resurgence, and RCEP-related members are vulnerable (Chuang Rui, 2018)[2]. Under the RCEP framework, China's trade liberalization in goods will also face many obstacles.

Therefore, in the current context, it is urgent to study and analyze the impact path of the system and trade gravity factors of RCEP member countries on their trade import and export flows with China. This can not only provide forward-looking guidance and theoretical support for China's strategy to accelerate the development of commodity trade under the RCEP framework, but also provide a good external development environment for China's economic transformation to enter the “new normal”, improve the import and export efficiency of goods, grasp the opportunities of RCEP, respond to potential challenges and further obtain the voice of international economic governance.

II. Research review and literature review

At present, RCEP as an important issue of regional economic integration has attracted the attention and research of relevant scholars from different angles.

Foreign scholars Chaisse, J. & Pomfret, R.(2018) [3]analyzed the impact of RCEP on investment policies and foreign capital flows. Lu S.(2019) [4]only analyzes the impact of RCEP on the supply chain of the clothing industry in the Asia-Pacific region. Yoshifumi Fukunaga (2015) [5] is based on the perspective of regional economic integration and believes that if RCEP adopts a model structure similar to the ASEAN Economic Community (AEC), then the economic development differences of ASEAN member countries will not hinder the economic integration of ASEAN.

Domestic scholars have studied RCEP mostly from the aspects of trade competitiveness, service trade liberalization, regional economic integration, economic growth and welfare effects. Sun Lifang and Chen Zhao (2018) [6] compared and analyzed the competitiveness of agricultural products and its influencing factors between China and other RCEP member countries, and found that openness was the biggest influencing factor. Meng Xia and Li Jun (2019) [7] focused on the liberalization of trade in services under the RCEP framework, and proposed a positive list solution. Chen and Quan (2013) [8] discussed the influence of TPP and RCEP on Asia-Pacific integration from a comparative perspective. Other scholars have studied the impact of RCEP on regional economic integration. Zhang Bin and Zhang Fei (2016) [9] believe that RCEP is one of the measures to deal with the 'Italian bowl' effect in the Asia-Pacific region. Zhang (2013) [10] found that RCEP will enable China and ASEAN to find common interests and improve the trade efficiency between China and ASEAN. Lv Yue and Li Qihang (2018) [11] focused on the cross-cutting effects of the plurilateral agreements of RCEP and TPP and found that adding both RCEP and TPP would maximize gains for China.

Domestic scholars in the selection of research methods are mostly based on trade gravity model or use GTAP model for quantitative calculation. Zhang Jun and Zhan Jinyong (2018) [12] quantitatively measure the economic

¹ From website: http://www.gov.cn/xinwen/2018-11/15/content_5340618.htm[EB/OL]

effects of CPTPP and RCEP on their participating member countries based on GTAP model. Feng Xiaoling and Gao Yiming (2015) [13] analyzed the influencing factors of China ' s goods trade liberalization under the RCEP framework based on the traditional gravity model, and found that the degree of economic development and geographical distance played a resistance role. Liu Bing Chung and Chen Shumei (2014) [14] use GTAP model to measure the economic effect caused by the reduction of technical barriers to trade under the RCEP framework and confirm its positive effect. Li and Guan et al. (2017) [15] used GTAP to quantify the economic effects of TPP and RCEP from the perspective of value chain. Zhao Liang and Chen Shumei (2015) [16] demonstrate the impact of China-South Korea FTA, China-Japan-South Korea FTA and RCEP on China ' s economic growth from trade effect, economic effect and welfare effect. Zhou Shudong and Zheng Jian (2018) [17] analyzed the trade efficiency and potential of China and RCEP partner countries based on stochastic frontier gravity model, and found that China ' s trade efficiency with RCEP partner countries was low, but the potential was large. Sun Lifang and Yang Li (2018) [18] developed an extended gravity model to measure trade flows and efficiencies between China and RCEP partners.

Human beings are naturally social (Fukuyama, 2012) [19]. Polanyi (1944) [20] and Granovetter (1985) [21] successively put forward the famous ' embeddedness ' theory that economy is embedded in economic and non-economic systems. The concept of ' embeddedness ' first proposed by Polanyi (1944) [20] is that human economy is embedded in economic and non-economic systems as an institutional process. Therefore, the economic behavior of individuals and enterprises is affected by social relations and social structure, that is, embedded in the social network (Granovetter, 1985) [21]. Sociologists have found that there is a very complex relationship between economic and political activities. Based on Granovetter ' s research on embeddedness, Zukin and Dimaggio (1990) [22] expanded the concept and put forward the dimension of " political embeddedness ", which emphasizes the analysis of embeddedness affecting economic behavior from the perspective of political environment. Political system, as an important formal system, also plays an important role in shaping economic action. Political embeddedness environment, such as government efficiency, the quality of policy formulation and implementation, government credibility, regulatory quality, legal system level, corruption control level, political stability, and so on, has a significant impact on trade activities. Therefore, the import and export trade behavior between countries is constrained by the political Embeddedness scenario of countries, and the trade behavior between countries is naturally subject to politics.

Therefore, it is necessary to study the trade gravity between China and RCEP partners from the perspective of political embeddedness. Based on the background of trade development between China and RCEP partner countries, this paper introduces the political Embeddedness factor into the traditional trade analysis framework, establishes a multi-level statistical model (HLM)that fits the embedded analysis, and uses the multi-level statistical model (HLM)to construct a multi-level trade gravity model to quantitatively measure the mechanism and path of the relationship between political Embeddedness, trade gravity and goods export, and reveals the political Embeddedness mechanism of trade gravity, in order to provide useful empirical evidence for the optimization and innovation of China ' s foreign trade strategy.

III. Models, Variables and Data

3.1. Model selection

In the field of international trade research, Trade Gravity Model is one of the classic models to analyze bilateral trade volume. Pothonen (1963) [23]and Hasson (1964)[24] found that trade flows between the two economies were proportional to their respective economies and inversely proportional to their geographical distances, and thus established a trade gravity model. Subsequently, many scholars have expanded and improved the gravity model by adding variables from different perspectives (Andersom [25], 1979). Levinsohn [26], 1994 et al.)

Drawing on the results of previous studies, this study takes trade gravity model as a benchmark model:

$$T_{ij} = \beta G_i G_{ij} / D_j$$

The logarithmic linearization on both sides of the equation is obtained as follows :

$$\ln T_{ij} = \beta_{0j} + \beta_{1j} \ln G_i + \beta_{2j} \ln G_j + \beta_{3j} \ln Dis \tan ce_{ij} + u_{ij}$$

T_{ij} : represents the trade flow of country i to country j

G_i : represents the economic scale of country i (generally expressed by GDP)

G_j : represents the economic scale of country j (generally expressed as GDP)

D_j : represents the geographical distance between country i and country j

u_{ij} : is random residual

From the above theoretical analysis, trade activities are not only affected by the factors at the level of trade gravity, but also restricted by the factors at the level of institutional embeddedness of bilateral trade target countries. Therefore, the factors affecting bilateral trade activities are hierarchical. The first level is the level of trade gravity, including economic scale and geographical distance. The second layer is the institutional Embeddedness level.

At present, some scholars have studied economics and management issues based on the embeddedness theory, and used the Hierarchical Liner Model (HLM) for empirical analysis. For example, Liu and Guo (2016) [27] used the HLM to solve the problem of the influencing factors of provincial environmental efficiency in China. In the field of trade research, Li Shijie and Deng Maojie (2017) [28] empirically analyze the core factors and paths affecting the export of Chinese cultural products based on the theory of embeddedness and trade gravity model. In addition, Wang Jichuan and Xie Haiyi (2007) [29] also pointed out that the multi-layer statistical model is suitable for multi-layer data analysis with nested structure, which can effectively deal with non-independent observation data in multi-layer data and intra-group homogeneity or inter-group heterogeneity in data, thus ensuring the accuracy of statistical inference of estimated parameters.

In summary, based on the perspective of multi-level statistics, this paper divides the classical trade gravity model into several levels, and establishes a multi-level trade gravity model. The improved model is set as follows :

Level 1:

$$\ln T_{ij} = \beta_{0j} + \beta_{1j} \ln G_i + \beta_{2j} \ln G_j + \beta_{3j} \ln Dis \tan ce_{ij} + u_{ij} \dots\dots\dots(1)$$

Level 2:

$$\beta_{0j} = \gamma_{00} + \gamma_{01} PED_j + u_{0j} \dots\dots\dots(2)$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11} PED_j + u_{1j} \dots\dots\dots(3)$$

$$\beta_{2j} = \gamma_{20} + \gamma_{21} PED_j + u_{2j} \dots\dots\dots(4)$$

$$\beta_{3j} = \gamma_{30} + \gamma_{31} PED_j + u_{3j} \dots\dots\dots(5)$$

In the multi-level statistical model, the explanatory variable of level one belongs to the explanatory variable of

trade gravity level, and the explanatory variable of level two IE_j belongs to the explanatory variable of political Embeddedness scene level, so it has a hierarchical structure.

3.2. Variable selection

3.2.1. Selection of explanatory variables

This paper takes China ' s export volume of goods with 15 RCEP trading partners as the dependent variable, and the time span is 2003-2015. Although trade activities include import and export flows, the price composition of import and export is different. If we consider both export and import, it will lead to complex problems and difficult to analyze the specific impact mechanism. In order to avoid the problems caused by simply selecting export as the research object, this paper takes the total import and export of goods as the research object for empirical calculation in the subsequent robustness test.

3.2.2. Selection of tier one explanatory variables

This paper selects GDP to represent the size of the national economy. Select the distance between the two capitals (km) as the representation of geographical distance. There are countries bordering China in the RCEP partner countries, and there are also countries using the same official language as China. Therefore, this paper designs two dummy variables to measure the boundary effect and play the role of control variables, namely, whether China and its trading partner countries use the common language and whether China and its trading partner countries border. At the same time, considering that the objective conditions such as economic consumption capacity, trade and shipping infrastructure between China and RCEP trading partners are quite different, and these factors also have a significant impact on the export of goods trade. In order to overcome the potential missing variables, reduce the potential systematic bias, and reduce the impact of this potential bias on the results, this paper continues to select the per capita national income gap between China and RCEP trading partners and the quality of port infrastructure as control variables.

3.2.3. Selection of tier 2 explanatory variables

How to measure the political embeddedness scenarios of different RCEP trading partners? The scenario of political embeddedness is essentially a manifestation of formal institutions. At present, there are many ways to measure the level of formal institutions in academia, especially the establishment of specific measures of political institutions, such as the World Bank ' s Global Governance Indicators (WGI), The Fraser Index, 《Wall Street Journal》 and the annual reports of the American Traditional Foundation - Index of Economic Freedom and International Country Risk Guide. Among them, the global governance indicators (WGI) issued by the World Bank is the most authoritative measure of the political system.

With regard to political embeddedness, many specific dimension indicators can be derived. In order to avoid the collinearity caused by the inclusion of too many dimension variables of political embeddedness, considering that the Worldwide Governance Indicators (WGI) is more authoritative and its dimension for the measurement of political embeddedness is more comprehensive, this paper uses the calculation method of Kogut and Singh (1988) [30] to measure the difference in political embeddedness between China and the RCEP trading partner based on the six dimensions of the global governance index (legal system index, regulatory quality, political stability, government efficiency, corruption control, discourse power and accountability). The specific calculation method is as follows :

$$PED_j = \sum_{i=1}^n \left\{ (PE_{ij} - PE_{ic})^2 / V_i \right\} / n$$

where, represents the difference in the political embeddedness scene between the jth RCEP trading partner and China, represents the index of the jth RCEP trading partner in the ith political embeddedness dimension, represents the index of China in the ith political embeddedness dimension, and n represents the total number of political embeddedness dimension.

3.3. Data sources

Specific variable settings and data sources are described in table 1 below :

Table 1: Variable indicators and data sources

Variable Type	Variable name	Variable meaning	Data sources
Dependent variable	LNEXS	Logarithm of China ' s exports to j countries (US \$)	<i>China Statistical Yearbook</i>
Layer 1 Explanatory variables	LNCGDP	Logarithm of GDP in China (US dollars)	<i>World Bank Global Development Indicators Database</i>
	LNFGDP	GDP of trading target countries (US dollars)	<i>World Bank Global Development Indicators Database</i>
	LnDistcap	Distance between China and capitals of trading target countries (km)	CEPII Database
	Contig	Whether China borders with the trading target country (dummy variable)	CEPII Database
	comlang	Does China and Trade Object Countries Have Common Language (dummy variable)	CEPII Database
	ABSPERGNI	Absolute value of per capita national income gap between China and trading target countries (US \$ 2010 unchanged)	<i>World Bank Global Development Indicators Database</i>
	QPI	Port infrastructure quality in trading target countries	World Bank
Layer 2 explanatory variables	PED	Differences in Political Embeddedness Scenarios between China and Trade Object Countries (Details of Indicators as explained earlier)	<i>World Bank Global Specific Database</i>

IV. Empirical Analysis

4.1. Decomposition of trade export flow variation (variance)

This paper first establishes an empty model to analyze the necessity of establishing a multi-level statistical model:

$$LNEX_{ij} = \beta_{0j} + r_{ij} \dots\dots\dots (6)$$

$$\beta_{0j} = \gamma_{00} + u_{0j} \dots\dots\dots (7)$$

The calculation results are shown in the following table :

Table 2: Variance decomposition results of trade export flow

Stochastic effect	Variance component	Standard error	Wald-Z	P Vaule
Layer 2	3.1039	1.1927	2.60	0.0046
Layer 1	0.6696	0.07059	9.49	<.0001

This study uses the software SAS 9.4 as an empirical measurement tool, and estimates the random intercept variance and residual variance of level 1 in Table 2 above. The results show that China ' s export flow of goods to RCEP trading partners has significant differences among different trading countries, that is, there is a significant heterogeneity in the political embeddedness scenario of trade activities among countries. The intra-group correlation coefficient is ICC = 0.82, indicating that about 82 % of the total variation in China ' s export volume to RCEP trading partners is caused by the differences in political Embeddedness scenarios of different trading partners, and only 18 % of the variation can be explained by trade gravity. This shows that the factors affecting China ' s export trade flows to RCEP trading partners are complex, and it is not enough to only consider trade and economic factors, so political embeddedness must be introduced in the study. Because a small ICC can produce large type I errors, ICC = 0.82 indicates that there is strong intra-group homogeneity in the data, and intra-group homogeneity means inter-group heterogeneity. In this study, the statistical significance of heterogeneity between groups indicates that ICC is statistically significant. Therefore, this study must be analyzed by multi-layer model.

4.2.2. Analysis of the Effect of Layer - One Variable

First, we construct an extended trade gravity model:

Layer one model :

$$\begin{aligned} LnExs_{ij} = & \beta_{0j} + \beta_{1j}LnCGDP_{ij} + \beta_{2j}LnFGDP_{ij} + \beta_{3j}LnDistcap_{ij} + \beta_{4j}contig_{ij} + \\ & \beta_{5j}comlang_{ij} + \beta_{6j}ABSGNID_{ij} + \beta_{7j}QPI_{ij} + u_{ij} \end{aligned} \quad \text{.....(8)}$$

Layer two model :

$$\begin{aligned} \beta_{0j} = \gamma_{00} + u_{0j}, \beta_{1j} = \gamma_{10} + u_{1j}, \beta_{2j} = \gamma_{20} + u_{2j}, \beta_{3j} = \gamma_{30} + u_{3j}, \dots \dots \dots (9) \quad \beta_{4j} = \gamma_{40} + u_{4j} \\ , \beta_{5j} = \gamma_{50} + u_{5j}, \beta_{6j} = \gamma_{60} + u_{6j}, \beta_{7j} = \gamma_{70} + u_{7j} \dots \dots \dots (10) \end{aligned}$$

Table 3: Regression Results of Layer 1 Variable

LnExs				
Explanatory variables	(1)	(2)	(3)	(4)
Intercept 1, β_{0j}				
Intercept 2, γ_{00}	-15.0496**	-13.3494**	-31.4548**	-28.5841**
LNCGDP , β_{1j}				
Intercept 2, γ_{10}	1.8123***	1.8185***	1.5705***	1.5555***
LNFGDP , β_{2j}				
Intercept 2, γ_{20}	0.4415***	0.4291***	1.3607***	1.4072***
lnDistcap , β_{3j}				
Intercept 2, γ_{30}	-0.6964	-0.8852	0.2956	-0.02975
Contig , β_{4j}				
Intercept 2, γ_{40}		-0.7220		-2.1798
Comlang, β_{5j}				
Intercept 2, γ_{50}		0.8626		0.3173
ABSGNID , β_{6j}				
Intercept 2, γ_{60}				

			-0.00011***	-0.00012***
QPI, β_{7j}				
Intercept 2, γ_{70}			-0.00999	-0.02569
Sample size	195	195	195	195

p<0. 05, *p<0. 01

Based on the empirical calculation results in columns (1) to (4) above, this paper finds that the economic scale (GDP) of the trading country and the trading object country has a significant positive impact on the export of the trading country, and the positive impact of the economic scale of the trading country is large. This may be because in terms of the export flow of the trading country, the economic scale of the trading country is more representative of a supply capacity. The larger the economic scale of the trading country is, the higher the GDP is, and the stronger the trade infrastructure, production scale and supply capacity of the trading country are. The economic scale of trade partner countries is more representative of a kind of demand capacity. In this study, the economic scale of trade partner countries (China ' s RCEP trade partner countries) is generally smaller than China ' s economic scale, so its demand capacity is also weaker than China ' s supply capacity. At the same time, the absolute value of the per capita national income gap between China and the trading target countries has a significant negative impact, and income tends to affect the demand structure, and the greater the income gap will lead to greater differences in demand structure, which also confirms the Theory of Overlapping Demand and provides new empirical evidence that : “the greater the difference in demand structure between the two countries, the smaller the trade volume between the two countries.”

At the same time, from the empirical calculation results of columns (1) to (4), the coefficient of geographical distance on the export flow of trading countries is negative but not significant, the coefficient of common boundary variable is negative but not significant, the coefficient of common language variable is positive but not significant, and the coefficient of port infrastructure is negative but not significant.

This paper further tests the randomness of the coefficients of the basic variables (economic scale, geographical distance) of the gravity model, and does not introduce explanatory variables in the layer two equation :

Table 4: Random Test Results of Basic Variable Coefficients of Gravity Model

Explanatory variables	Variance component (u_{1j})	Standard error	Wald-Z Value	P Vaule
Intercept 1, β_{0j}	205.77	82.8392	2.48	0.0065
LNCGDP, β_{1j}	0.4300	0.1736	2.48	0.0066
LNFGDP, β_{2j}	0.7864	0.3466	2.27	0.0116
LnDistcap, β_{3j}	3.6723	1.4575	2.52	0.0059

Through the random test, the Wald-Z value test of the variance u_{1j} of the basic explanatory variables LNCGDP, LNFGDP and LnDistcap of the trade gravity model shows that the corresponding P value is significant, that is, the horizontal variance of the two groups is significant, indicating that the coefficients (influence degree) of the basic explanatory variables LNCGDP, LNFGDP and LnDistcap of the trade gravity model are different among different countries. It is necessary to introduce the political Embeddedness scenario difference (PED)to further explain.

4.3. Results and Discussion on the Effect of Layer 2 Variables

On the basis of the above, this study continues to introduce β_{0j} 、 β_{1j} 、 β_{2j} 、 β_{3j} and measure the variable “political embeddedness difference ” (PED) at the level of political embeddedness :

Layer 1 Model:

$$\begin{aligned} LnExs_{ij} = & \beta_{0j} + \beta_{1j}LnCGDP_{ij} + \beta_{2j}LnFGDP_{ij} + \beta_{3j}LnDistcap_{ij} + \beta_{4j}contig_{ij} \\ & + \beta_{5j}comlang_{ij} + \beta_{6j}ABSGNID_{ij} + \beta_{7j}QPI_{ij} + u_{ij} \end{aligned} \quad \text{.....(11)}$$

Layer 2 Model:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}PED_j + u_{0j}, \quad \beta_{1j} = \gamma_{10} + \gamma_{11}PED_j + u_{1j} \dots\dots\dots(12)$$

$$\beta_{2j} = \gamma_{20} + \gamma_{21}PED_j + u_{2j}, \quad \beta_{3j} = \gamma_{30} + \gamma_{31}PED_j + u_{3j} \dots\dots\dots(13)$$

$$\beta_{4j} = \gamma_{40} + u_{4j}, \quad \beta_{5j} = \gamma_{50} + u_{5j}, \quad \beta_{6j} = \gamma_{60} + u_{6j}, \quad \beta_{7j} = \gamma_{70} + u_{7j} \dots\dots\dots(14)$$

Table 5: Regression results of effect of two variables

Variable	Regression coefficient	Standard error	t-test	P Vaule
Dependent variable Lnexs				
Intercept 1, β_{0j} Intercept 2, γ_{00}	-19.1426	14.9403	-1.28	0.2264
PED , γ_{01}	-0.5084	1.0685	-0.48	0.6348
LNCGDP , β_{1j}				
Intercept 2, γ_{10}	2.3404***	0.1276	18.35	<.0001
PED , γ_{11}	-0.05304***	0.009426	-5.63	<.0001
LNFGDP , β_{2j}				
Intercept 2, γ_{20}	0.1744	0.1854	0.94	0.3482
PED , γ_{21}	0.08521***	0.02363	3.61	0.0004
lnDistcap , β_{3j}				
Intercept 2, γ_{31}	-0.9108	1.8089	-0.50	0.6246
PED , γ_{31}	0.02622	0.1127	0.23	0.8163
Contig , β_{4j}				
Intercept 2, γ_{41}	-0.8818	0.9955	-0.89	0.3947
Comlang , β_{5j}				
Intercept 2, γ_{51}	1.734	1.3100	1.32	0.2125
ABSGNID , β_{6j}				
Intercept 2, γ_{61}	-0.0001***	0.000016	-6.39	<.0001
QPI , β_{7j}				
Intercept 2, γ_{71}	0.003934	0.1098	0.04	0.9715

p<0. 05, *p<0. 01

The empirical results show that the direct impact angle : the impact coefficient of political embeddedness scenario difference (PED) on China 's export flows to RCEP partners is negative, which means that the greater the political embeddedness scenario difference between China and RCEP partners, the smaller export flows, but this effect is not statistically significant.

From the perspective of indirect influence, the political embeddedness scenario difference (PED) can inhibit the positive effect of the economic scale of the trading country on its export flow, that is, the greater the political embeddedness scenario difference between China and RCEP trading partners is, the greater the positive effect of China ' s economic scale on its export flow will be inhibited. The Political Embeddedness Scenario Difference (PED)can strengthen the positive impact of the economic size of the trading target country on its import flow (the export of the trading country is the import of the trading target country). Political Embeddedness scenario difference (PED) can weaken the resistance of geographical distance to trade export flow, which also means that political Embeddedness scenario difference (PED) and geographical distance have an alternative effect, but this cross-layer interaction is not statistically significant.

In the other control variables, the absolute value of per capita income gap has a significant direct negative impact on trade flows. The coefficient of common boundary is negative but not significant, the coefficient of common language is positive but not significant, and the coefficient of port infrastructure is positive but not significant.

V. Robustness Test

Since the above emphasizes that the dependent variable only selects the export flow so as not to complicate the problem and facilitate the analysis of theory and results, the use of export flow has little effect on the results. In order to test the robustness of the conclusion, this study replaces the dependent variable ' China ' s export flow to RCEP trading partner countries ' with ' China ' s import and export flow to RCEP trading partner countries ' to test whether the above analysis is reasonable. China ' s total import and export data to RCEP trading partners are

derived from "《China Statistical Yearbook》". As before, the model simply replaces the dependent variable LNEXS with LNAT, which represents 'China's import and export flows to RCEP trading partners', and establishes the following model.

Layer 1 Model:

$$\begin{aligned} \text{LnAT}_{ij} = & \beta_{0j} + \beta_{1j}\text{LnCGDP}_{ij} + \beta_{2j}\text{LnFGDP}_{ij} + \beta_{3j}\text{LnDistcap}_{ij} + \beta_{4j}\text{contig}_{ij} \\ & + \beta_{5j}\text{comlang}_{ij} + \beta_{6j}\text{ABSGNID}_{ij} + \beta_{7j}\text{QPI}_{ij} + u_{ij} \end{aligned} \quad \text{.....(15)}$$

Layer 2 Model:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}\text{PED}_j + u_{0j}, \quad \beta_{1j} = \gamma_{10} + \gamma_{11}\text{PED}_j + u_{1j} \quad \text{.....(16)}$$

$$\beta_{2j} = \gamma_{20} + \gamma_{21}\text{PED}_j + u_{2j}, \quad \beta_{3j} = \gamma_{30} + \gamma_{31}\text{PED}_j + u_{3j} \quad \text{.....(17)}$$

$$\beta_{4j} = \gamma_{40} + u_{4j}, \quad \beta_{5j} = \gamma_{50} + u_{5j}, \quad \beta_{6j} = \gamma_{60} + u_{6j}, \quad \beta_{7j} = \gamma_{70} + u_{7j} \quad \text{.....(18)}$$

Table 6: Robustness test results

Variable	Regression coefficient	Standard error	T test	P value
Dependent variable LnAT				
Intercept 1, β_{0j}				
Intercept 2, γ_{00}	-19.1426	61.5794	-0.12	0.9068
PED , γ_{01}	-0.5084	3.9571	-0.46	0.6459
LNCGDP , β_{1j}				
Intercept 2, γ_{10}	2.3404***	0.2179	2.74	0.0068
PED , γ_{11}	-0.05304***	0.01335	2.73	0.0069
LNFGDP , β_{2j}				
Intercept 2, γ_{20}	0.1744	0.3693	7.06	<.0001
PED , γ_{21}	0.08521***	0.03434	-2.28	0.0238
lnDistcap , β_{3j} Intercept 2,				
γ_{31}	-0.9108	7.5181	-0.46	0.6565
PED , γ_{31}	0.02622	0.4536	0.58	0.5627
Contig , β_{4j}				
Intercept 2, γ_{41}	-0.8818	4.0901	-0.94	0.3692
Comlang , β_{5j}				
Intercept 2, γ_{51}	1.7340	5.3132	0.06	0.9494
ABSGNID , β_{6j}				
Intercept 2, γ_{61}	-0.00010***	0.000022	-2.84	0.0051
QPI , β_{7j}				

Intercept 2, γ_{71}	0.003934	0.1156	-1.11	0.2665
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p<0.05, *p<0.01

By observing the results of the above robustness tests, this paper finds that after the export flow is replaced by the total import and export flow, the empirical results of the model are basically consistent with the above, so the results of this paper are robust.

VI. Conclusions and Suggestions

6.1. Economic development

Through empirical research, it can be found that under the premise of other conditions unchanged, the higher the GDP, the higher the trade flows between countries and China. GDP reflects the growth of economic aggregate. Countries with higher GDP produce more products and create more wealth, so it is easy to understand that the trade volume of two countries with higher GDP is naturally high. Therefore, this paper concludes that China's trade in goods under the RCEP framework will be affected by the economic development of various countries. At present, China's economy has entered a medium-to-high-speed development mode under the "new normal". If the decline in China's GDP growth rate is not controllable, it may be not conducive to the development of China's trade in goods. In addition, as the central region of RCEP, ASEAN's internal economic development varies greatly among countries, resulting in less common interests, different economic objectives and limited internal tightness. Therefore, it is difficult to lead RCEP under the condition of low internal integration. At the same time, the economic development of ASEAN is not fully competent for the responsibility of the central country. If only relying on ASEAN to maintain the follow-up development after the completion of RCEP may be slightly insufficient, which will also have a certain degree of impact on the development of China's goods trade after the completion of RCEP. Therefore, China should seize the opportunity to strive for leadership and weaken the role of ASEAN.

6.2. Maintaining stable economic growth

In the current situation, although China's economy has bid farewell to the high-speed growth after entering the "new normal," if China can adjust its economic structure, stimulate internal demand and promote the diversification of growth momentum on the premise of maintaining stable economic growth, it can not only prevent heavy blows when the crisis occurs due to excessive dependence on external demand to a large extent, but also timely increase its voice and become a functional center, leading the construction of RCEP to a certain extent.

6.3. Actively promote the construction of the Belt and Road Initiative

At present, the Belt and Road route also covers RCEP member countries. Today's trade in goods mainly depends on shipping, followed by railway transportation. Therefore, it is necessary to accelerate the establishment of the new Silk Road, create connectivity between Asia, Europe, the African continent and the adjacent seas, and further trade in the case of navigation and access will inevitably play a great role in promoting China's trade in goods. Therefore, the construction of the Belt and Road Initiative will promote the development of new routes, reduce trade barriers, and accelerate the inspection of customs clearance procedures, which will all resolve the trade resistance caused by distance. It is also possible to take advantage of 'the Belt and Road' to further develop the advantages of China's land transport through the advanced technology of high-speed rail and the advantages of widely compatible national railway networks.

6.4. Improving intra-regional industrial division of labor

From the perspective of per capita disposable income level, RCEP member countries outside China can be divided into two categories. The first category is the positive-difference country, that is, China's per capita income level

is higher than that of the country. The characteristic of this kind of country is that it has little difference with China's per capita income level, but the gap shows an increasing trend year by year. The other is the negative countries, where the per capita income level is higher than that of China, which is characterized by a large gap in per capita income levels but a decreasing trend year by year. Faced with this situation, China should actively carry out industrial transfer, China has entered the recession industry transfer to other relatively backward member countries, make full use of resources, do a good job in the adjustment and upgrading of their industrial structure. At the same time, the developed countries can undertake industries with technological content, and then export to them.

6.5. Steadily promote the construction of "AIIB"

After the completion of "AIIB", it can help countries to strengthen traffic infrastructure construction, and focus on the construction of important channels and key areas. In terms of shipping, AIIB can promote port infrastructure construction, provide good waterway connection channels, increase ports and routes, flights, thereby improving port throughput. In addition, cross-border railway construction and air transport facilities can be built to develop land and air transport. As the initiator of the AIIB, China should actively help countries with poor infrastructure to improve transport facilities such as ports and railways and improve the efficiency of goods trade.

6.6. Grasping the policy force to avoid institutional risks

The political Embeddedness factor under the RECP framework will cause trade resistance, so we should establish a unified transparent and fair international trade system in view of the institutional defects under the current RECP framework, and then hedge the resistance caused by the institutional factors of countries under the RCEP framework to China's trade freedom, so as to avoid risks and ensure the freedom of trade in goods.

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