Influence of Diplomatic Political Relations on International Trade from the Perspective of Cultural Distance

Xiaodong Shu(✉)

School of Music and Performing Arts, Mianyang Teachers' College, Mianyang 621000, Sichuan, China
silent157768526@163.com

Abstract. The complex relationship between trade and politics has always existed in different stages of the development of international trade. With the increasing economic strength of various countries, bilateral political frictions have become increasingly frequent, bringing great challenges to the import and export trade of various countries. In order to promote the further development of international trade of various countries, the influence of diplomatic political relations on international trade from the perspective of cultural distance is carried out. The results show that the scale of international trade is inhibited with increasing of diplomatic political relations, and cultural distance has a significant negative moderating effect on the trade effect of diplomatic political relations. Therefore, under the development environment of cultural institutional distance, a good diplomatic political distance is a strong support for the international trade development of a country.

Keywords: diplomatic political relations · international trade · cultural distance

1 Introduction

The relationship between diplomatic political relations and international trade has always been a hot issue in the field of international political economy [1]. When the earliest scholars studied the impact of political relations on international trade, they often classified the political relations between countries as political conflicts, negative political events or wars, and came to the traditional view that political conflicts between countries would have a negative impact on economic and trade exchanges between countries, resulting in the decline or even interruption of trade [2]. However, inter-state political conflicts are only a manifestation of the deterioration of inter-state political relations. Especially in the 21st century where we are now living, peace and development are the general world situation, the global economy is highly integrated, and the inter-state political relations rarely lead to direct military conflicts or wars. Moreover, inter-state political relations are still improving. The previous studies on this issue are not comprehensive enough [3].

After World War II, peace and development became the theme of the Times. Although local tensions, conflicts and turbulence existed side by side, the overall international political situation was characterized by relaxation and stability. The peaceful and stable

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international political situation has provided good opportunities and broad background for the development of the world economy. With the development of national economy, the political relations between countries are getting closer and closer. Friendly and cooperative political relations can enhance communication, deepen international trade cooperation and avoid conflicts. According to the research results of the existing literature, the influence of political relations on international trade is not consistent in the positive and negative aspects and the intensity of influence. Some studies believe that the deterioration of political relations will lead to the reduction of bilateral trade volume, and some studies have found that there is a phenomenon of "political cold and economic hot". However, the theory of "institutional proximity" and the theory of "institutional bias" believe that political institutional distance, economic institutional distance, legal institutional distance and cultural institutional distance all have an impact on international trade. Through actual trade activities, we can find that, Institutional distance has an increasing influence on the formation of international trade comparative advantage, the development of trade scale, the change of trade structure and the distribution of trade gains [4]. Therefore, it is very important to systematically study the path, mechanism and driving force of institutional distance affecting international trade, rationally formulate international trade policies and measures, and adapt to the current trade development environment.

In present study, it discusses the influence of diplomatic political relations on international trade from the perspective of cultural institutions [5]. Taking China as the research object, it investigates the influence of the political relations between China and representative countries in the world on bilateral international trade, which provides theoretical support and new enlightenment for the formulation of China's political policies and the orientation of trade, and further promotes the development of economic globalization.

2 Research Design

2.1 Research Model

The trade gravity model adopted in this paper was first introduced into the category of international trade by Tinbergen (1962) and Poyhonen (1963). According to the specific research purpose, the traditional gravity model is expanded and the external political relations are introduced into the model by Zhang (2021). On the basis of existing studies, this paper further expands "cultural distance" into the trade gravity model (Eq. 1), and examines whether the influence of diplomatic political relations on international trade varies with the size of cultural distance. The specific model is shown in Eq. (2):

$$\ln Trade_{it} = \alpha_0 + \alpha_1 Politic_{it} + \alpha_2 \ln Y_{ct} + \alpha_3 \ln Y_{it} + \alpha_4 \ln Exrate_{it} + \alpha_5 \ln Tro_{it} + \varepsilon_{it} \tag{1}$$

$$\ln Trade_{it} = \beta_0 + \beta_1 Politic_{it} + \beta_2 CD_{it} + \beta_3 \ln Y_{ct} + \beta_4 \ln Y_{it} + \beta_5 \ln Exrate_{it} + \beta_6 \ln Tro_{it} + \varepsilon_{it} \tag{2}$$

where, i represents the country and t represents the quarter. It uses the quarterly data which is shorter than the annual data to study the impact of foreign political relations on international trade.

The explained variable $Trade_{it}$ represents the logarithm of the actual total volume of imports and exports between country i and China in period t.

The explanatory variable $Politic_{it}$ represents the political relation index between China and country i in period t; CD_{it} represents the cultural distance between China and country i in period t; Y_{ct} represents the logarithm of China's actual gross domestic product in period t; Y_{it} represents the logarithm of country's real divided gross foreign product in period t; $Exrate_{it}$ represents the inverse value of the real exchange rate level of country i in period t, Tro_{it} represents the trade dependence between China and country i in period t, and ε_{it} is a random indeterminate term.

2.2 Data Source

The explained variable $Trade_{it}$ is obtained by the monthly nominal data of the annual import and export amount of each country and China in the Wind database, and then calculates the quarterly nominal data of the import and export amount of China and 11 countries. The US quarterly price index based on 2016 is obtained from IMF Data. Then the quarterly nominal import and export amount of China and other countries denominated in US dollars is deducted from the price index change of US dollar, and the actual import and export amount of China's trade with other countries is obtained.

The explanatory variable $Politic_{it}$ is expressed using the Political Relations Index, which is derived from the database of China's relations with major Powers by the Institute of International Relations of Tsinghua University. The quarterly data is obtained by summing the monthly data.

The control variable cultural distance CD_{it} is calculated according to the theoretical model of Hofstede's six-dimension cultural distance (power distance, individualism/collectivism, masculinity/feminism, uncertainty avoidance, long-term orientation/short-term orientation, self-indulgence/self-restraint) and the KSI model with the introduction of time trend item.the greater the value, the greater the cultural distance between a country and China. The other way around is smaller. China's quarterly GDP conversion index is derived from IMF Data, the real GDP of foreign countries, the nominal GDP of countries from the Wind database, and the change of the price index excluding US dollar. The real exchange rate of each country is calculated by multiplying the ratio of the nominal exchange rate of each country with the US dollar by the price index of each country and the price index of the US. The quarterly nominal GDP and price index of each country are all from IMF Data. Trade dependence reflects from one side the degree of dependence of a country's economic development on international trade, or the degree of connection between a country's economy and foreign economies. The traditional calculation method is: foreign trade dependence = total foreign trade/gross domestic product. The higher the degree of dependence on foreign trade reflects the higher the degree of economic development of a country, and the greater the volume of foreign trade. Therefore, this paper obtains according to the definition and calculation method of trade dependence.

Table 1. Descriptive statistics

Variables	Mean	Standard deviation	Maximum	Minimum
$Trade_{it}$	1.051×10^{11}	6.421×10^{12}	2.458×10^{15}	4.176×10^{8}
$Politic_{it}$	5.478	2.649	8.156	−4.975
CD_{it}	2.917	1.650	5.943	0.397
Y_{ct}	3.527×10^{12}	6.485×10^{12}	1.320×10^{14}	1.364×10^{11}
Y_{it}	5.163×10^{9}	6.175×10^{10}	3.456×10^{15}	8.489×10^{8}
$Exrate_{it}$	4.697	2.163	8.169	0.316
Tro_{it}	0.648	1.457	1.245	0.227

3 Results

3.1 Descriptive Analysis

All variables were described and analyzed statistically, and the results were shown in Table 1. As can be seen from Table 1, the average economic scale of China is higher than that of its trading partners, and the variance of China's economic scale is large, which reflects the actual situation of relatively fast economic growth to some extent. At the same time, it can be seen from the maximum, minimum, mean and variance of foreign trade that there are a wide range of countries selected in the sample, including developing countries and developed countries, and there is a large gap in the level of trade between countries. It can be seen that the selected sample covers a wide range of economies and the sample has a sufficient degree of diversity.

3.2 Stationary Analysis

In this paper, LLC and ADF methods were used respectively to test the stationarity of all the variables used in the empirical analysis. The results are shown in Table 2. It can be seen from the test results that all variables are stable, and except the variables of total import and export volume and gross domestic product, which have trend term or intercept term, all other variables do not contain trend term or intercept term. To some extent, this shows that although all countries are committed to expanding the size of their economies and developing foreign trade. It can be concluded that if the empirical model is regression, there will be no "false regression" problem.

3.3 Empirical Analysis

The constructed model is used for regression to obtain the results shown in Table 3. From model (1) in the Table 3, it can be seen that diplomatic political relations have a significant impact on international trade, and the regression coefficient is negative, indicating that diplomatic political relations have an inverse relationship with international trade, that is, the worse the diplomatic political relations, the smaller the scale of international

Table 2. Stationary test

Variables	LLC		ADF		Stationary
	Form	P	Form	P	
$Trade_{it}$	(0,0,1)	0.0000	(d,0,1)	0.0001	Y
$Politic_{it}$	(0,0,1)	0.0000	(0,0,1)	0.0000	Y
CD_{it}	(0,0,1)	0.0000	(0,0,1)	0.0000	Y
Y_{ct}	(0,t,1)	0.0000	(d,0,3)	0.0005	Y
Y_{it}	(0,t,1)	0.0000	(d,0,1)	0.0019	Y
$Exrate_{it}$	(0,0,1)	0.0000	(0,0,1)	0.0000	Y
Tro_{it}	(0,0,1)	0.0000	(0,0,1)	0.0000	Y

trade. In order to explore the influence of cultural distance, the cultural distance is introduced into model (1) to obtain the regression (2) result. As can be seen from the Table, the regression coefficient of external political relations becomes -0.620, indicating that under the influence of cultural distance, cultural distance will promote the influence of diplomatic political relations on international trade, and the coefficient of cultural distance is -0.863. This suggests that the closer the cultural distance, the greater the scale of trade.

Considering the potential endogenous problems between political relations and trade, the fixed effect model is used for regression estimation. In present study, it controls for the state fixation effect, which can effectively address the estimation bias caused by certain factors related to national characteristics that are not observed but which also affect diplomatic political relations and economic and trade exchanges. In addition, time

Table 3. Empirical results of trade gravity model

	(1)	(2)	(3)	(4)
$Politic_{it}$	-0.316***	-0.620***	-0.623***	-0.634***
CD_{it}	—	-0.863***	-0.894***	-0.908***
Y_{ct}	0.156	0.0339	0.0345	0.0338
Y_{it}	0.209	0.0247	0.0226	0.0245
$Exrate_{it}$	-0.0648***	-0.840***	-0.829***	-0.863***
Tro_{it}	18.93**	19.47**	18.46**	19.04**
Constant	8.169***	16.342***	10.641***	9.158***
Country	—	—	Yes	—
Time	—	—	—	Yes
N	480	480	480	480
R^2	0.9214	0.9423	0.9285	0.9218

fixed effect is also introduced in this paper to solve the problem of missing variables that do not vary with countries but vary with time, so as to ensure that the results are unbiased estimates. The regression results are respectively shown in Model (3) and Model (4) in Table 3. It can be seen from the Table that the regression coefficient of diplomatic political relations and cultural distance has little change, and the significance has no change. It can be seen that diplomatic political relations play a role in promoting international trade, and the smaller the cultural distance, the greater the influence.

4 Conclusion

The complex relationship between trade and politics has always existed in different stages of the development of international trade. With the increasing economic strength of various countries, bilateral political frictions have become increasingly frequent, bringing great challenges to the import and export trade of various countries. In order to promote the further development of international trade of various countries, this paper starts from the perspective of cultural distance, selects panel data from 2016 to 2022 for empirical analysis, and discusses the influence of cultural distance on foreign political relations and international trade relations. The results show that the increase of diplomatic political relations should inhibit the scale of international trade. Meanwhile, the cultural distance has a significant negative moderating effect on the trade effect of foreign political relations. Therefore, under the development environment of cultural institutional distance, a good diplomatic political distance is a strong support for the international trade.

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