

Analysis of the Process of RMB Internationalization with Special Emphasis on the Offshore Bond Markets

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ABSTRACT

With rapid economic growth in recent years, China has become the world's second largest economy. In the context of economic globalization, the process of RMB internationalization is gradually accelerating, and remarkable achievements have been made in cross-border settlement and offshore market. This paper first reviews the relevant theories of currency internationalization and analyzes the historical conditions of the development of RMB internationalization. It reveals the internal and external driving forces of RMB internationalization and sorts out its development context. Taking the offshore bond market as the research object, the currency structure in the international bond market is selected as an index reflecting the degree of currency internationalization, and the determining model of international bond proportion is established. Using the data of 28 countries from 2005 to 2019, the regression analysis shows that a country's economic size and domestic macroeconomic stability are positively correlated with the level of currency internationalization, while foreign exchange reserves are negatively correlated. According to the model, the difference between the theoretical demand and the actual issuance of RMB international bonds is nearly 10 times. Therefore, it can be inferred that the offshore RMB bond market has great development potential.

KEYWORDS

Currency internationalization; RMB internationalization strategy; Offshore RMB market

1. INTRODUCTION

From the beginning of the 21st century, China has continuously expanded its export trade and actively participated in international economic cooperation and division of labor. In the process of this development, the internationalization of the renminbi has also been promoted. Over the past decade, the international use of the renminbi has grown thousands of times.

In early 2004, Hong Kong banks began to pilot individual RMB business, which was the first time for China to open the construction of RMB offshore market. After the 2008 financial crisis, the US launched several rounds of massive quantitative easing, which continuously raised global inflation expectations. The violent fluctuation of the international financial market has made all countries realize that there are many defects in the single international monetary system. Therefore, many countries advocate reform in the form of a diversified international monetary system.

In 2010, China officially overtook Japan to become the world's second largest economy. A growing number of scholars and governments are proposing that the Chinese yuan need play a more important role in the international community.

At the end of 2015, the RMB officially became a component currency of the International Monetary Fund (IMF) Special Drawing Rights (SDR). This is an important symbol of its becoming an international reserve currency.

As Figure 1 shows, the proportion of China's foreign exchange reserve in the central bank's balance sheet has been growing year by year. Despite the continuous appreciation of the RMB against the US dollar, China's foreign exchange market remains basically stable with a balance between supply and demand.

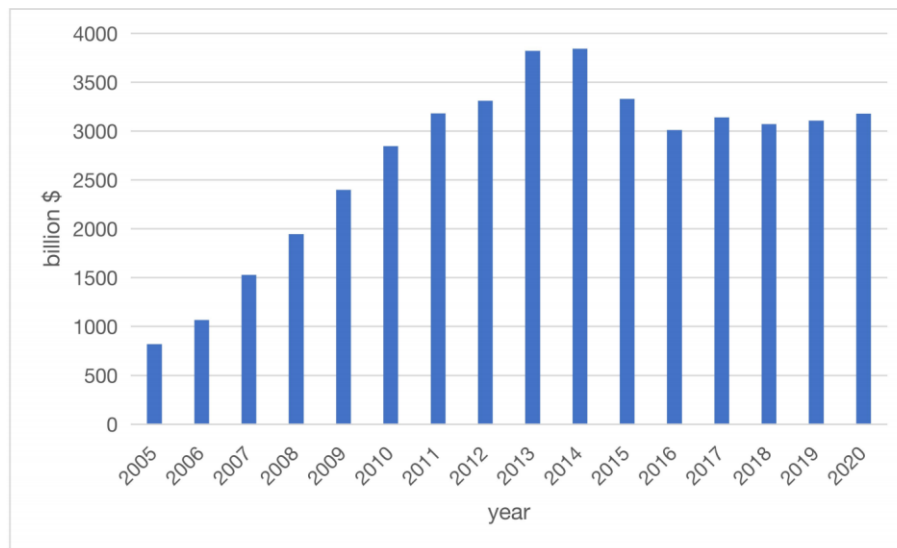


Figure 1. The bar chart of China's foreign exchange reserves

Source: Collated according to the data published by the People's Bank of China

As the RMB continues to strengthen its function of international trade valuation and settlement, and its function of international financial valuation and transaction continues to deepen, its status as an international reserve currency is steadily improving. By the end of 2020, THE RMB Internationalization Index (RII) was 5.02, up 54.20% year on year, hitting a new record high, see Figure 2. The RMB has overtaken the British pound for the first time to become the fourth most widely used international currency.

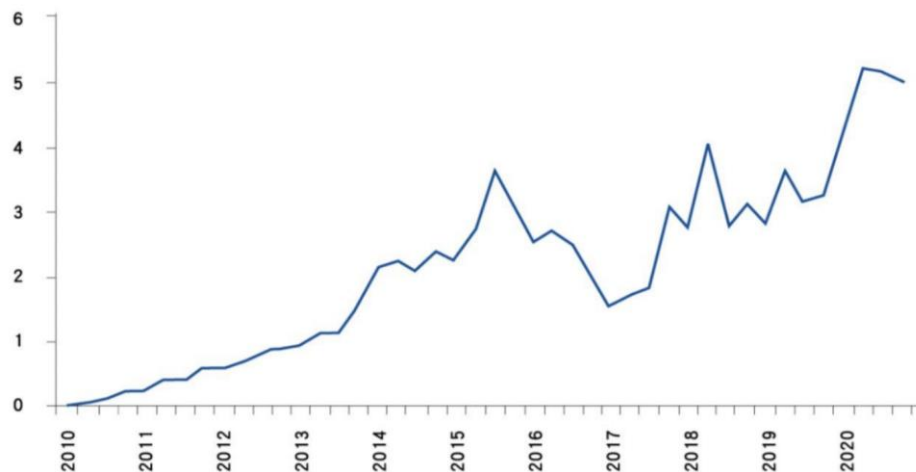


Figure 2. RMB Internationalization Index (RII)

Source: Collated according to data published by School of Finance, Renmin University

Historical experience shows that the economic rise of a great power is often accompanied by the internationalization of its currency. An international currency can bring huge benefits, but its issuing country must also bear more obligations and risks. RMB internationalization has become an extremely hot issue in the current economic field of China and even the world.

Based on the offshore bond market, this paper reveals the macro international background and internal policies of RMB internationalization. Combined with the international RMB cross-border business

and the latest situation of offshore market construction, the influencing factors of RMB internationalization are studied. And discuss the significance and challenges of RMB internationalization.

2. LITERATURE SURVEY

2.1. Overview of Research on Currency Internationalization

In 1944, the International Conference confirmed the dollar as a reserve currency. National currencies are pegged to the US dollar at a fixed exchange rate, and the US dollar is backed by gold. Later, with the decline of the US gold reserves, the application of currencies such as the Japanese yen and the mark, and the birth of the euro, there was more and more discussion about currency internationalization.

2.1.1. Definition of currency internationalization

Hartmann (1998) made a detailed classification of international currencies according to various functions, that is, an international currency can provide residents or non-residents of different countries with the functions of medium of exchange, unit of account and reserve of value [1].

Therefore, currency internationalization can be defined as: Based on the function of a currency, through the channels of the current account, the capital account and freely convertible foreign currency, it gradually enhances overseas circulation method, payment method, unit of valuation and store of value by a sovereign currency. As the credit of the currency increased, which gradually evolves into a regional currency, eventually become a widely accepted international currency throughout the world.

2.1.2. Conditions and determinants of currency internationalization

According to the literature, scholars agree that the main factors supporting a country's currency to be an international currency are: large economy in aggregate, developed financial system, high credit of national currency, political stability, and network externalities.

Tavals (1997) linked the factors affecting the international use of currencies with the criteria for the optimal currency area, and proposed important conditions for currency internationalization: international recognition of the political stability of the issuing country, deeply open financial markets, and accounts for a large share of the world's import and export trade [2].

Mundell as the founder of the optimal currency area theory, believes that the decisive factor for the evolution of a sovereign currency into an international currency lies in the international community's confidence and expectation in the stability of the currency value [3, 4]. The scope of the currency circulation area, the scale of international transactions, the stability of the central bank's monetary policy, the openness of the capital account, the GDP level of the issuing country and other factors are all important factors affecting the international community's confidence in the currency.

Chinn and Frankel (2008) also came to a similar conclusion in their empirical analysis. They found that the economic aggregate and inflation rate of the currency issuing country, the variance of exchange rate fluctuations and the size of the issuing country's financial market are all significant factors affecting the degree of currency internationalization [5].

Fred (1975) believes that the development of international currency is phased. First, as the currency becomes more widely used in international trade, it will gradually develop a historical trend of inertia. Secondly, if a currency accounts for a large proportion of international trade, it will have a greater advantage. Finally, a mature and free financial markets is also essential to establish the international status of a country's currency in the international market [6].

Krugman (1980) also pays attention to the influence of historical inertia on the status of international currency. From the perspective of transaction cost and choice theory, he found that with the increase of transaction volume, the average transaction cost of a currency will decrease, and the currency with the lowest transaction cost will gradually become the generally accepted medium of exchange [7].

McKinnon (2004) demonstrated the historical inertia of international money from the perspective of network externalities. He believes that due to the existence of network externalities, international currency as a medium of exchange has a natural monopoly trend, so international currency has a positive tendency to concentrate on a certain currency [8].

2.2. Overview of Research on RMB Internationalization

In 2009, China officially announced the Implementation Rules of RMB Cross-border Trade Settlement, which marked the starting point of RMB internationalization. Scholars' research on RMB internationalization mainly focuses on analyzing the challenges encountered in the practice of RMB internationalization, summarizes the existing experience, and puts forward the strategic conception, strategy and realization path of RMB internationalization.

RMB internationalization is defined as the process in which RMB, through the development of cross-border business and offshore market, gradually becomes the settlement currency for international trade in products and services, the denomination currency for international financial transactions, and finally becomes the reserve currency held by major investment institutions and central banks.

2.2.1. Necessity and feasibility of RMB internationalization

He, Li and Guan (2004) first combined the cross-border circulation of RMB to analyze the potential benefits of RMB internationalization, mainly focusing on the impact on China's economy. These include: enhancing China's international influence and voice, reducing double mismatch, increasing seigniorage revenue, deepening China's financial system reform, etc. The paper holds that the benefits of promoting RMB internationalization are greater than the costs, but still need to be cautious [9].

Zhou (2009) proposed that with the significant improvement of China's comprehensive national strength, the demand for RMB as the currency for bilateral trade settlement gradually increased. China should seize this opportunity to promote the circulation of RMB in surrounding and Asian region and steadily promote the strategy of RMB internationalization [10].

After studying the costs and benefits of RMB internationalization, Gao He Yu (2010) proposed that the internationalization of currency is the result of natural selection in the international market. Therefore, RMB internationalization should not be regarded as a government's active policy goal, but also a condition for China's development to some extent [11].

2.2.2. Ways to implement RMB internationalization

Eichengreen (2011) pointed out that after the international financial crisis, RMB swap agreements and cross-border trade settlement have achieved positive results, which does not mean that RMB will become an international reserve currency in the short term, because RMB has not been freely convertible [12].

Prasad and Ye (2012) point out that the development of RMB internationalization is significantly affected by China's imperfect financial system and relatively backward development of financial market [13].

Chinn (2014) pointed out that the liberalization of RMB capital account is very important for the internationalization of RMB. At the same time, a deep and dynamic domestic financial market and predictable micro and macro policies are also important conditions for the internationalization of RMB [14].

Shi (2013) proposed a dual-track system: one is to carry out financial reform in China while promoting the opening of capital account; the other is to establish an offshore RMB foreign exchange market in Hong Kong [15].

2.3. Review of Research Status

At the theoretical level, the traditional theory of currency internationalization mainly analyzes the functions of the unit of account and the reserve of value, and lacks the discussion of the economic system and the financial system. In the empirical aspect, international scholars' researches on currency internationalization mainly focus on the challenge of the dominance of euro against dollar, especially from the perspective of international reserves. There are few quantitative studies and predictions on RMB internationalization. Most of the existing research results can be used as a basic theoretical framework for understanding RMB internationalization and a reference for empirical analysis.

After the 2008 financial crisis, the evolution of the international monetary system has many new features and trends. The existing literature does not carry out in-depth research on the relationship between the reform of the international monetary system and the internationalization of RMB, and lacks analysis on the impact of the incomplete opening of China's capital account. Therefore, this paper will actively discuss the history and related factors, current progress and challenges of RMB internationalization under the standard of the new international monetary system and the existing international bond market. And try to discuss the future of the internationalization of currency. It is hoped that through a new perspective and data analysis, the current development trend and potential of RMB internationalization can be better described.

3. INTERNATIONAL SITUATION AND POLICY

3.1. International Situation

3.1.1. International Monetary system

For more than 100 years, the international monetary system has undergone three main stages of evolution. The international gold standard is a sovereign currency freely convertible into gold, and the exchange rate of various currencies is determined by the corresponding proportion of gold. Under the Bretton Woods system, currencies were indirectly linked to gold through a fixed exchange rate system with the US dollar. The Jamaican system places more emphasis on floating exchange rates [16]. In 2016, the Chinese Yuan was recognized as a currency freely usable in international markets, and became the fifth currency in the IMF's Special Drawing Rights (SDR) basket. Its proportion is second only to the US dollar and euro. The development of RMB internationalization is inseparable from the reform of the international monetary system, so they are mutually reinforcing. For the international community, RMB's inclusion in SDR will enhance the stability of the international currency market. As far as RMB is concerned, the reform of the international monetary system has given external impetus to the development of RMB internationalization and promoted the process positively.

3.1.2. International trade

In November 2020, ASEAN countries signed the Regional Comprehensive Economic Partnership (RCEP) agreement with four countries, including China. It is the largest free trade agreement with the largest population, the largest potential and the largest scale in the world, covering almost one third of the global economy and establishing an integrated market. China's central bank has signed currency swap agreements with more than two dozen central banks around the world, and 29 countries, including Russia and Turkey, now use renminbi as a settlement method.

3.2. RMB Internationalization Process

3.2.1. Policy

The essence of RMB internationalization is the process of RMB going to the world, and also the process of RMB gradually assuming the function of international currency [17]. These include: the medium of exchange function refers to the international settlement currency; The measure of value function is to become an international denomination currency; The store of value function refers to being an international reserve currency. The following is a summary of influential Chinese policies over the years, see Table 1.

Table 1. Policy summary of promoting RMB internationalization

Year	policy
2004	Hong Kong banks opened individual RMB deposit accounts.
2007	China issued yuan-denominated bonds in the Hong Kong market.
2008	China's central bank has reached currency swap agreements with 21 foreign central banks.
2009	China opened RMB trade settlement services in five cities.
2010	Trials for renminbi trade settlement were extended to 20 provinces.
2011	Chinese yuan could be used for foreign investment, and offshore RMB could be invested in the mainland.
2012	All Chinese companies were able to settle all current account transactions in renminbi.
2013	The RMB offshore market pilot increased in Singapore and London.
2014	The Shanghai and Hong Kong stock markets were connected.
2015	A RMB cross-border payment system could be established.
2016	RMB was added to the SDR currency basket.
2017	China focuses on building CIPS and RMB payment platforms.
2018	China has promoted capital account convertibility.
2019	China has issued bonds under the Belt and Road Initiative.
2020	Hainan province was planned as a China's new free trade port.

3.2.2. Open form

According to literature review, the development of currency internationalization largely depends on the opening of domestic capital account. QDII allows qualified domestic institutional investors to invest in overseas markets if the capital account is not fully opened. RQFII foreign institutional investors can invest foreign exchange settlement in the domestic securities market. These policies have effectively increased capital liquidity and accelerated the internationalization of the RMB.

On the other hand, China is also constantly exploring new models of RMB internationalization. It includes giving play to the role of RMB in investment and financing, strengthening the RMB pricing of commodities, gradually opening up the onshore financial market, and promoting the regionalization and internationalization of RMB through the construction of the "Belt and Road" [18]. The function of RMB as a world currency has gradually expanded from a pricing currency to a settlement currency, and even a reserve currency.

4. METHODOLOGY

4.1. Variables

4.1.1. Dependent variables

In terms of currency internationalization, the extent of development depends on its status as a trade settlement, financial transaction and reserve currency. Among them, the amount of trade settlement and financial transactions directly determines the degree of currency internationalization, while the amount and proportion of reserve currency is usually considered to be the result of currency internationalization. Therefore, compared with the currency proportion in trade settlement and international reserves, the currency proportion in the international bond market is considered to be the most comprehensive indicator to reflect the internationalization degree of a currency. On the one hand, the currency structure of international bond market directly reflects the distribution of different currencies in financial transactions and valuation, and represents the function of international currency as a "unit of valuation". This can be thought of as a condition and basis for the general trading of the market, which is easier to recognize and use when the valuation function of the currency is prominent. This is the nature of international currencies. On the other hand, international bonds are also the main investment products of the central banks of various countries, reflecting the "value reserve" function of the international currency. This is the international community's optimism and confidence for the stability and credibility of the value of money. Such a currency would serve as a store of reserves, perhaps bring the increase of the asset, and have hard circulation in international markets. Therefore, as an important indicator that can reflect the degree of internationalization of a country's currency, the empirical study of this paper chooses the bond share of international bonds issued by a country in the global total international bonds as the dependent variable.

Figure 3 shows the change trend of major currencies in international bonds from 2005 to 2019. Among them, the status of Japanese yen, Swiss franc and RMB has not changed significantly, but since 2005, the total amount of international bonds issued in euro has surpassed that of US dollar, accounting for about 45% of all international bonds. From the outbreak of the financial crisis in 2007 to 2014, the US economy suffered obvious shocks and the status of the US dollar was greatly challenged. In international bonds, the advantage of euro against the US dollar was constantly expanding. After 2015, with the recovery of the US economy and the deterioration of the European debt crisis, the US dollar became the first currency again. Therefore, the currency structure of international bonds well reflects the dynamic competitive trend of major international Currencies.

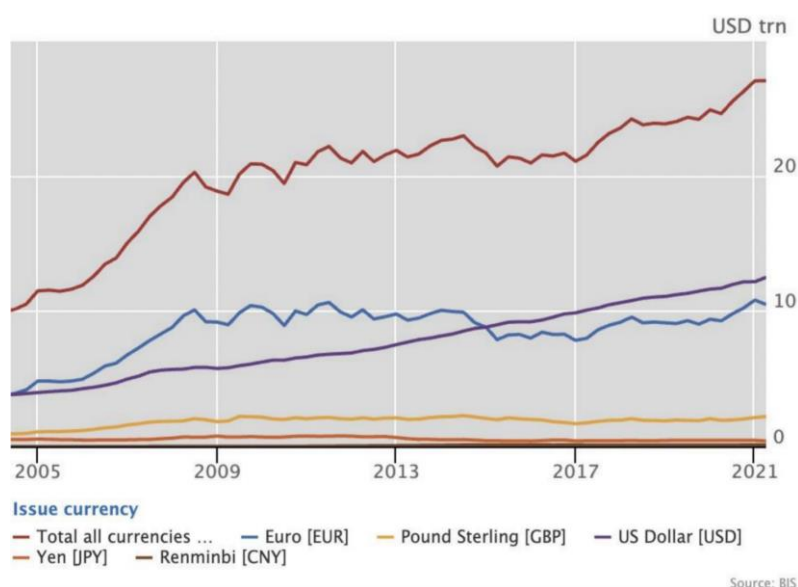


Figure 3. Change trend of currency structure of international bonds

4.1.2. Independent variables

As network externalities belong to the concept of the new economy, they cannot be measured and reflected by specific indicators, but can only explain some phenomena in the process of currency internationalization [19]. Therefore, this paper mainly considers the level of economic development, social stability, trade level and international foreign exchange market four factors.

The inflation rate can reflect the macroeconomic environment of a country to a certain extent. When an economy has high inflation for an extended period of time, it raises concerns about future growth and stability [20]. Therefore, theoretically, the inflation rate of the international bond issuing country should be negatively correlated with the proportion of its international bonds. This paper selects the inflation rate measured by the consumer price index as the independent variable.

Foreign exchange reserves can adjust the international balance of payments and ensure external payments. Xie (2015) used VAR model to conduct an empirical study on the relationship between Japan's foreign exchange reserve scale and yen internationalization from 1976 to 2013. The study finds that Japan's large foreign exchange reserve inhibits the process of yen internationalization after it officially starts [21]. This paper selects total reserves including foreign exchange and gold as independent variables to explore the relationship between foreign exchange scale and currency internationalization.

Currency has the function of circulation, and the level of import and export trade of a country is positively correlated with its economic level and international status. The promotion of a country's international status is conducive to the internationalization of its currency, so the export of trade and service should be positively correlated with the internationalization of currency.

4.2. Method and Model

4.2.1. Method

In terms of quantitative research on currency internationalization, Chinn and Frankel (2008) built a theoretical model of the proportion of reserve currencies. Using data from 1973 to 1998, they analysed the currency structure of international reserves and, using data from 1999 to 2004, predicted that the euro would become the number one reserve currency over the next 20 years, assuming a scenario of eurozone expansion and a gradual depreciation of the dollar [5].

4.2.2. Model

Based on the above analysis, this paper improves the theoretical model of reserve currency ratio to some extent. The proportion of the international bonds issued by a country in the global total international bonds is selected as the dependent variable. It should be noted that the dependent variable "bondshare" varies between 0 and 1. Therefore, Logistic transformation was made for the dependent variable first, and the changes are shown in Figure 4. This change extends the scope of the dependent variable to $(-\infty, +\infty)$, defined as $\log\text{bondshare}$. At the same time, we choose the share of global GDP of the issuing country (GDP share), the inflation rate of the issuing country (inflation), the global share of the issuing country's total foreign exchange reserves (reserves), and the share of the issuing country's trade and services exports in global foreign trade (trade) as explanatory variables.

Specific data sources are as follows: Data on international bonds was gotten from the Bank for International Settlements (BIS) database. National and global GDP, inflation rates, total reserves and trade and services exports data come from the World Development Indicators Database of the World Bank. The GDP data of 2010 is USD Constant price. Based on this, the international bond proportion determination model is established as follows:

$$\log\text{bondshare}_{i,t} = \alpha_{i,t} + \beta_1\text{gdps}_{i,t} + \beta_2\text{inflation}_{i,t} + \beta_3\text{reserves}_{i,t} + \beta_4\text{trade}_{i,t} + \theta_{i,t} \quad (1)$$

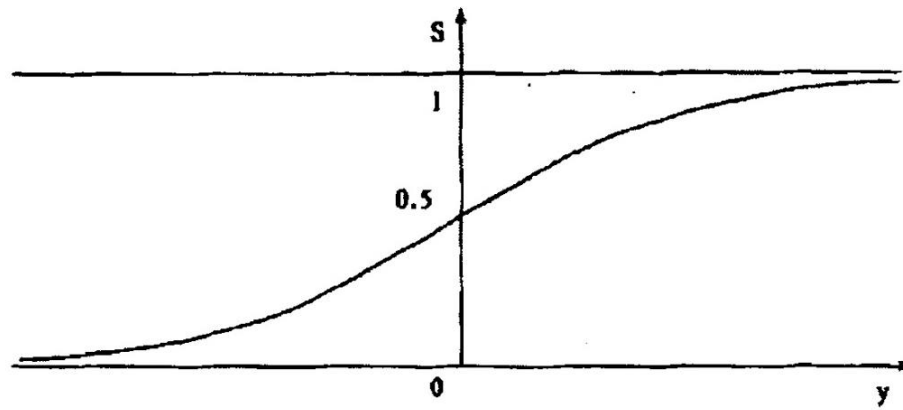


Figure 4. Logistic changes

5. FINDING

5.1. Stationarity Test

Due to the use of panel data for empirical analysis, pseudo-regression phenomenon often occurs among non-stationary variables with random trend, resulting in distortion of statistical conclusions. Therefore, unit root test should be carried out first before the analysis. In order to ensure the robustness of the statistical results, stat A was used to perform ADF unit root test on each variable in the model. The test results were shown in Table 2:

Table 2. Proportion of international bonds determines the results of stationarity test of model data

Variable (level)	ADF test	Conclusion	Variable (First-order difference)	ADF test	Conclusion
logbondshare	37.4535 (0.9732)	Not smooth	logbondshare	159.1278*** (0.0000)	smooth
gdpshare	166.0394*** (0.0000)	smooth	gdpshare	107.9055*** (0.0000)	smooth
inflation	169.7140*** (0.0000)	smooth	inflation	250.6658*** (0.0000)	smooth
reserves	174.9145*** (0.0000)	smooth	reserves	193.0112*** (0.0000)	smooth
trade	24.6390 (0.9999)	Not smooth	trade	385.1506*** (0.0000)	smooth
“*”, “**”, “***” means significant at the level of 10%, 5% and 1%, respectively					

The results of ADF test show that the horizontal values of the two variables fail to pass the stationarity test, but the first-order difference is stationary within the significance level of 1%. Therefore, the original series is a first-order stationary series, which meets the requirements of cointegration test for the integration of time series of the same order and can avoid the phenomenon of pseudo regression.

5.2. Multicollinearity Test

The multicollinearity problem of independent variables refers to the fact that explanatory variables are not independent of each other. In a linear model, if there is a strong linear relationship between the independent variables and the independent variables affect each other, the true relationship between the independent variables and the dependent variables cannot be found. So we need to solve the multicollinearity problem.

For multicollinearity in multiple linear regression model, variance inflation factor (VIF) can measure its severity. VIF refers to the ratio of the variance of the estimator of regression coefficient to that of the assumed independent variables that are not linearly correlated. The experimental results are shown in Table 3. The VIF values of all independent variables are less than 10, so all variables in the model are independent and do not affect each other. There is no complete multicollinearity, and the selection of these variables is reasonable.

Table 3. Variance inflation factor

Variable	VIF	1/VIF
reserves	1.29	0.772749
gdpshare	1.28	0.783981
trade	1.14	0.878836
inflation	1.12	0.889642
Mean VIF	1.21	

5.3. Descriptive Statistics

Descriptive statistics, also known as narrative statistics, can describe or summarize the basic situation of observed quantities, as shown in Table 4.

Table 4. Statistics of variable data

Variable	Obs	Mean	Std. Dev.	Min	Max
logbondshare	420	-4.307816	1.359862	-7.83182	-1.636682
gdpshare	420	.0257592	.0443785	.0007773	.274252
inflation	420	.0260365	.026873	-.0448	.1633246
reserves	420	.0149291	.0221316	.0000269	.1727719
trade	420	.0696463	.1883087	.0028852	1.188869

5.4. Correlation Test

Correlation test is to test the significance of the calculated correlation coefficient. The null hypothesis is that the variables are not correlated, that is, the correlation coefficient of the population is 0. Stata is used to test the correlation coefficients of single logbondshare, gdpshare, inflation, underbelly and trade. The smaller the P value of the test result is, the greater the correlation between the two variables is. 0 means significant correlation, <0.05 means great correlation, <0.1 means certain correlation, and 1 means basically no correlation. The test results are shown in Table 5. There is a certain correlation between reserves and logbondshare, and the value is significantly less than 1. Therefore, it is believed that there is a certain correlation between variables and regression simulation can be conducted.

Table 5. Correlation test

	logbondshare	gdpshare	inflation	reserves	trade
logbondshare	1.0000				
gdpshare	0.4430	1.0000			
inflation	-0.4187	-0.0391	1.0000		
reserves	0.0469	0.4511	0.0675	1.0000	
trade	-0.2564	0.0880	0.3047	0.1551	1.0000

5.5. Regression Analysis

Select the top 28 countries (excluding China) in terms of international bond issuance, including: The United States, Britain, Japan, France, Germany, Italy, Spain, Australia, Canada, Sweden, Ireland, Belgium, the Netherlands, Austria, Norway, Brazil, Russia, Greece, Portugal, South Korea, Mexico,

Denmark, Finland, Luxembourg, Singapore, Malaysia, Bulgaria, India. China's data is not included in the regression, because the existing experimental data should be used to verify and predict China's RMB internationalization process. The panel data from 2005 to 2019 were substituted into the above model, and Statal2.0 was used to perform regression of the model. The results are as follows:

Table 6. Regression results of international bond proportion determination model

	OLS	F-E	R-E
	logbondshare	logbondshare	logbondshare
gdpshare	15.45*** (-11.13)	18.80** (-2.2)	18.64*** (-3.26)
inflation	-16.99*** (-10.92)	-0.719 (-0.34)	-2.026 (-1.01)
reserves	-8.008*** (-4.34)	-17.27*** (-3.77)	-16.08*** (-4.25)
trade	-1.287*** (-7.05)	1.990** (-2.68)	-0.153 (-0.60)
_cons	-4.054*** (-53.17)	-4.654*** (-22.21)	-4.484*** (-18.61)
N	420	420	420
F	92.62	15.97	
r2	0.404	0.0622	
ar2			
t statistics in parentheses, * p < 0.1, ** p < 0.05, *** p < 0.01			

Table 7. Hausman test results

	(b) fe	(B) re	(b-B) Difference	Sqrt (diag (V_b-V_B)) S.E.
gdpshare	18.79833	18.63597	.1623577	3.870495
inflation	-.718879	-2.025793	1.306914	.2536336
reserves	-17.26537	-16.08013	-1.185238	2.317211
trade	1.989545	-.153104	2.142649	.8026579
chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)=121.83 Prob>chi2 = 0.0000				

A total of five regression models have been established in this paper. The first column in Table 6 is the regression result of OLS model, which is only used as the benchmark reference for the other four models.

The data of this paper is panel data, which could analyzed with fixed effects and random effects models for estimation respectively. In Table 6, the model F-E is the estimated result of the fixed effects model, and model R-E is the estimated result of the random effects model. In order to avoid the interference of dummy variables of year on regression results, the fixed effect model (F-E _year) and random effect model (R-E_year) with a full set of year dummy variables are estimated respectively in this paper. The results are listed in column 4 and column 5 in Table 6. The regression results show that there is no significant difference between the estimates of the fixed effects and random effects models. Therefore, for the F-E model and R-E model without adding the year virtual variable, the Hausman test is used to determine, as shown in Table 7. P value of 0.0000 is less than 1%, which means that the null hypothesis is rejected and the fixed effects model is chosen.

Therefore, this paper uses the fixed effects model (F-E) as the regression model. After substituting the regression coefficient, we can get:

$$\log\text{bondshare}_{i,t} = 18.80\text{gdpshare}_{i,t} - 0.719\text{inflation}_{i,t} - 17.27\text{reserves}_{i,t} + 1.990\text{trade}_{i,t} - 4.654 \quad (2)$$

6. DISCUSSION

The model regression results show that: “gdp share”, “reserves” and “trade” have a significant impact on the “logbondshare” at the level of 1%. In addition, “inflation” is not significant, in line with theoretical expectations, and the coefficient is negative. According to the OLS model experiment, although its impact on the currency proportion of international bonds cannot be determined, this variable can be compared and referenced.

A country's economic strength, that is, its share of global GDP, is an important factor affecting the weight of a country's currency in the international bond market. Its influence coefficient is the highest, which fully shows that strong economic scale is the most powerful factor supporting the level of currency internationalization of a country. When a country has sufficient credibility and influence in the world economy, the international market will be more inclined to issue international bonds using the currency. Its stock advantage also means that this currency is widely recognized as an international currency function of “financial valuation” and “store of value.”

The proportion of foreign exchange reserves to total reserves reflects the size of a country's foreign exchange reserves. The decline in this ratio can reflect confidence in the national currency and subsequent economic decisions. The country uses its national currency to conduct a large number of transactions on the international financial market to circulate money and establish credit [22]. The smooth flow of funds will reduce the demand for and purchase of foreign exchange reserves and promote the development of the internationalization of the national currency. Therefore, the proportion of total foreign exchange reserves is negatively correlated with currency internationalization.

The proportion of a country's trade and service exports is an important indicator of foreign trade, and also reflects the proportion of a country's economy in the global economy. This data directly shows the situation of the global flow economy, so it can be understood as the improvement of the level of import and export trade, which contributes to the country's international image and credit [23]. Therefore, the growth of trade and service exports can promote the further development of currency internationalization, and the two are positively correlated.

Inflation reflects the stability of the macroeconomic operation of the issuing country, and directly affects the yield level of the international bonds of the currency. If the inflation level is higher, the expected bond yield will also rise, the bond issuance cost will be greater, and the bond issuance will be correspondingly reduced. Therefore, this variable has a negative correlation with the proportion of international bonds.

The panel data model used data from 28 countries' bond markets, excluding China. This is because China has not yet fully opened its capital account, while the countries in the sample did so before the 21st century [24]. Assuming that after China opens its RMB bond market, China's international bond market also conforms to the economic law described by the above model, then the theoretical demand scale of RMB international bonds can be predicted by China's current economic data.

By substituting the relevant data of China at the end of 2019 into the above model, the logbondshare value of China in 2019 can be calculated to be -4.654. After Logistic transformation, China's international bonds should theoretically take up 5.139% of the international market share in 2019. In fact, the proportion of China's international bonds in 2019 was 0.517%, which shows that the current development level of offshore RMB bond market is about 10 times lower than the predicted value. This implies that RMB internationalization has great development space and potential for expansion.

7. CONCLUSIONS

Based on the background of global economization and China's development process, this paper argues that RMB internationalization is not only a requirement of the international community, but also a strategic choice in line with China's own economic development trend. With the multi-polarization of the world economy, especially the trend of regionalization, is becoming increasingly obvious. International monetary diversification will be the evolution direction of the international monetary system, and RMB will certainly play an important role in this process. Since 2004, RMB has made remarkable achievements in cross-border settlement business and offshore market construction. But the current progress is mainly limited to trade settlement and some bond transactions, and there is still a gap between RMB and international currencies such as US dollar and euro in third-party transactions. The main problem is that China has not fully opened its capital account. In order to realize further internationalize the RMB, China needs to have a more market-oriented exchange rate and interest rate mechanism of more mature, more open capital account, financial markets and the macroeconomic policy framework and a series of necessary conditions. With RMB joining the SDR currency basket and becoming an officially recognized reserve currency, it has increased its proportion in the new round of adjustment, and the Chinese government has also opened free trade ports and signed currency exchange agreements with many countries. It can be predicted that the internationalization process of RMB will be continuously accelerated under the joint promotion of policies and markets.

In order to more intuitive and accurately reflect the potential and prospect of the internationalisation of the renminbi, this article selects the monetary structure in the international bond market as an important index to reflect the degree of currency internationalization, and establishes the decision-making model of international bond. Through empirical analysis found that a country's economic strength is an important determinant of its currency internationalization level, At the same time, domestic economic level, foreign exchange reserves and trade scale all have a significant impact on the internationalization level of a country's currency. Based on the hypothesis of capital account opening, the paper calculates that the theoretical demand for RMB international bonds is close to 10 times of the actual issuance stock. Therefore, the huge development potential of RMB bond market is deduced. Therefore, based on the incomplete opening of the China's capital account, it needs to actively promote the construction of the offshore yuan bond market. This way can enrich the offshore investment channels, improve the mechanism of the offshore yuan backflow, making domestic and offshore yuan market and orderly circulation. And, more importantly, this can speed up from the trade settlement currency to the investment trading and reserve currency conversion.

To sum up, this paper believes that RMB has become an internationally accepted and reserved currency, and with the implementation of the economic opening and the "One Belt and One Road" policy, RMB has established cooperation with many countries in terms of free convertibility, gradually realizing the goal of international transactions. Based on the Chinese government's prudent monetary policy, the stability and strength of the RMB has made it a hot spot in the mainstream market and has begun to meet the conditions of becoming a global investment currency. Judging from the historical development law of international currency, the internationalization of RMB is likely to become an important force in the evolution of the world economic pattern.

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