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Abstract: Both the recent debt ceiling crisis of the U.S. and the downgrade of its credit rating have served to refocus attention on the stability of the current bipolar international monetary system. Given China's increasing influence on the world economy, we argue in this paper that the internationalization of the Renminbi would strengthen the international monetary system by transforming the current regime into a tripolar one. Using a panel regression model, we first investigate empirically the determinants of the international use of a currency and simulate the share of the Renminbi in the international reserve holdings. By assuming free convertibility of the Renminbi, our results indicate that its potential as a reserve currency would be comparable to that of the Euro by 2020. We further show that the international reserve holdings composed of the U.S. dollar, the Euro and the Renminbi would be more stable than that under the bipolar international monetary system. **Keywords:** RMB internationalization; International monetary system; Stability

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I. Introduction

The recent debt ceiling crisis of the U.S. has brought attention on the stability of the current bipolar international monetary system. Although the statutory debt ceiling of the U.S. has eventually been raised, the prolonged controversy over the legislation and related fiscal policy debate have triggered a downgrade of its credit rating and revealed the inherent weaknesses of the current bipolar international monetary system dominated by the U.S. dollar and the Euro. In general, the international monetary system is a set of mechanisms which determines the rate at which one currency is exchanged for another. Not only does it provide a standardized unit of account for international transactions, but also a set of regulations for governing the exchange rate systems of different countries. Hence, it is crucial for promoting exchange rate stability and thereby facilitating the development and stability of the world economy. The implementation and operation of the international monetary system entail management by a credible and influential organization. The major responsibility of such organization is to oversee and monitor the monetary and financial affairs of different countries so as to promote global financial stability and an open system of international payments. Given the interdependence between different economies and the increasing complexity of the global financial market, a major challenge of nowadays global financial management is to seek international coordination and cooperation so as to ensure an effective operation of the international monetary system.

Since the end of World War II, the U.S. dollar has become the dominant currency for international transactions. The currency status of the U.S. dollar was not challenged until the advent of the Euro in 1999. Yet, there is no evidence that the Euro has replaced the U.S. dollar as the leading international currency over the last decade as its role in international transactions comes mostly from the European countries. Despite the emergence of the Euro, the U.S. dollar remains its preeminent role in international trading and financial activities. In particular, the U.S. dollar currently accounts for 60% of the global foreign exchange reserves. The currency hegemony of the U.S. dollar contributed significantly to the post-war economic growth and the prosperity of the financial market of the U.S. While such international monetary system helps foster the economic development of the U.S., it increases the instability of the system and neglects the economic

benefits of other nations. Firstly, with the U.S. dollar being the leading international currency, the economic development of all other countries partly hinges on the economic and financial policy of the U.S. For instance, while the U.S. mitigated the damage of the Global Financial Crisis in 2008 on its own economy by taking advantage of the currency status of the dollar through increasing the supply of its currency, the rest of the world suffered from the spillovers of the global shock caused by the failure of the current international monetary system with deterioration in economic performance and devaluation in their own currencies. Secondly, under the current international monetary system, most of the assets are denominated in the U.S. dollar. Such risk concentration will lead to an increase in the systemic risk of the global financial system. In other words, any shocks to the U.S. economy will ripple through the global economy and thus amplify the instability of the international monetary system dominated by a single sovereign currency.

Given the increasing role of the emerging countries in the world economy, there have been lively discussions on reforming the current bipolar international monetary system in which the U.S. dollar and the Euro are the dominant and auxiliary currency, respectively. Such reform is necessary for enhancing the stability of the system. One proposal from the governor of the People's Bank of China, Zhou Xiaochuan, is to replace the role of the U.S. dollar in international transactions with special drawing right (SDR), which is a super-sovereign currency with the advantage of not being affected by the monetary policy, economic cycle and financial crisis of a particular country (Zhou, 2009). For instance, the 2008 Global Financial Crisis originated from the U.S. subprime mortgage crisis highlighted the problem of having a sovereign currency as an international currency. The crisis, together with the successive quantitative easing by the Federal Reserve, triggered a loss of confidence in dollar-denominated assets. The resulted devaluation of the dollar caused not only an upward pressure on the inflation rate of other countries, but also a sharp decline in the real value of their foreign exchange reserves.

In addition to the proposal of Zhou Xiaochuan, another way of reforming the international monetary system is to transform it into a tripolar one by introducing a third major international currency into the system so as to strengthen its stability. In order to

compare between the stability of the two systems, we first need to identify the meaning of stability. In this paper, we define stability in terms of the stability of a country's foreign exchange reserve. A national foreign exchange reserve is analogous to an investor's portfolio of foreign currency investment. The risk of investing in a single currency is high, but whether diversification through investing in an additional currency can enhance the stability of the portfolio depends on the correlation between the two currencies in the portfolio and the volatility of the newly introduced currency. For instance, if the additional currency is positively or not correlated with the existing currencies and its volatility is higher than that of the existing currencies, the new investment portfolio will be more volatile than the original one. Hence, in order to stabilize the value of the investment portfolio, the newly introduced currency must be negatively correlated with and less volatile than the existing currencies. In general, the objective of this paper is to provide an analysis of whether the tripolar international monetary system is more stable than a bipolar one.

II. Literature Review

Existing studies to have considered the impact of the emergence of the Euro on the stability of the international monetary system dominated by the U.S. dollar was started since the introduction of the Euro in 1999 (for example, Mundell, 1998; Mundell 2000). Under the system dominated by a single sovereign currency, no alternative can rival the status of the U.S. dollar. Given that the supply of the dollar is not required to be backed by any physical commodities, the U.S. can maximize its benefits of being the issuing country of the international currency by excessively supplying the dollar to the world. Consequently, the stability of the international monetary system will be deteriorated. Song (2004) applied a theoretical model and found that the emergence of the Euro would increase the competition among international currencies and thereby restrict the supply of the U.S. dollar. As a result, the stability of the international monetary system would be enhanced. By assuming the same currency status of the dollar and the Euro and that there is no conspiracy between the two issuing countries, the result of the theoretical model of Xiong and Huang (2010) was similar to that of Song (2004). Specifically, Xiong and Huang (2010) emphasized that there would be no excess supply of international currencies

under the above two assumptions. In contrast, if the Euro had a lower currency status than the U.S. dollar, their model suggested that the supply of the dollar would be excessive. Nonetheless, such bipolar international monetary system would still be more stable than the system dominated by a single sovereign currency. Notwithstanding the conclusion of Song (2004) and Xiong and Huang (2010), the question of whether a tripolar international monetary system is more stable than a bipolar one remains unanswered.

In general, the level of international use of a currency depends on a number of economic determinants. Quantitative research that concerns with the factors determining the level of international use of a currency and the relative importance of those factors was started since the advent of the Euro. The most influential paper in this field was conducted by Chinn and Frankel (2008). By summarizing the existing literature, Chinn and Frankel (2008) concluded four main factors determining the level of international use of a currency, including the size of the economy in terms of output and trading activities, the size and development of the financial market, the volatility of the currency and network Furthermore, Chinn and Frankel (2008) quantified the impact of the externalities. determinants on the degree of international use of the currency by adopting a panel regression model with official foreign exchange reserves data covering the period of 1973 to 1998. According to their results, the size of the economy measured by its GDP affected the level of international use of a currency positively. In contrast, the impact of the volatility of the currency measured by the inflation rate of the corresponding country on its level of international use appeared to be negative. They also found no significant impact of the financial market development measured by foreign exchange turnover on the international use of a currency. In order to the measure the impact of network externalities, Chinn and Frankel (2008) included a lagged dependent variable in their model and showed that the currency shares of foreign reserve holdings appeared to be highly persistent. This implied that small changes in those economic determinants would not produce corresponding changes in the level of international use of a currency in the short run.

Based on the economic size of China, its currency tends to be the most obvious candidate for a new international currency. Hence, there have recently been a number of studies focusing on extrapolating the level of international use of the Renminbi. For instance, based on the panel regression model of Chinn and Frankel (2005), Li and Liu (2008) investigated the factors influencing the internationalization of a currency by using currency shares of foreign reserve holdings, international trade settlement and international bond denomination over the period of 1967 to 2004 as indicators of the degree of international use of a currency. According to their results, the five variables, which significantly affected the currency shares of foreign reserve holdings, included GDP of the issuing country, real domestic interest rate, trade surplus, volatility and appreciation of the exchange rate. In particular, GDP of the issuing country appeared to be the most important determinant among all the significant factors. Li and Liu (2008) also included a dummy variable in their model and found no evidence suggesting that the advent of the Euro had induced any significant changes on the impact of the economic determinants on the internationalization of a currency. With the assumption of free convertibility of the Renminbi and a well-developed financial market, they further simulated the share of the Renminbi in international reserve holdings on the basis of their model. The share of the Renminbi in international reserve holdings in 2020 was predicted to be above 15% in all the three different growth scenarios for China. This suggested that the Renminbi would become the third largest international currency. In a similar vein of methodology, Chen, Peng and Shu (2009) found similar results to Chinn and Frankel (2005) and Li and Liu (2008) by using official foreign exchange reserves data over the period of 1999 to 2006 and market capitalization as a measure for financial market development. They further claimed that the Renminbi's share in the international reserve holdings would have been comparable to that of the British Pound and the Japanese Yen if the Renminbi were to become freely convertible today. By using a longer sampling period than Chen, Peng and Shu (2009), Lee (2010) incorporated a measure of the degree of a country's openness to global financial markets in his model and suggested that the internationalization of the Renminbi was mainly obstructed by China's restrictions on their capital account. In two different growth scenarios for China, Lee (2010) showed that the share of the Renminbi in the international reserve holdings would both exceed that of the Japanese Yen and the British Pound by 2035. Although there would be a sharp rise in the output share of China, he claimed that the Renminbi's reserve holdings share would not increase correspondingly in the short run due to the strong influence of network externalities. A similar study was also conducted by Song (2010), who estimated the panel regression model with the use of system GMM. Under the most conservative assumption, she predicted that the Renminbi's reserve holdings share would be approximately 15% in 2030.

In general, the theoretical models in extant studies tend to suggest that the stability of the international monetary system could be enhanced through the introduction of a new international currency with currency status comparable to that of the U.S. dollar. Nonetheless, not only do these studies lack any quantitative analyses, but they also fail to provide a conclusion of whether a tripolar structure is more stable than a bipolar one. Other studies to have concerned with the factors determining the degree of internationalization of a currency generally show that the Renminbi would be the third international currency if it becomes freely convertible. Yet, these studies provide no evidence that the Renminbi would improve the stability of the international monetary system. This paper contributes to the existing literature by providing a quantitative analysis on whether the tripolar monetary system formed by the U.S. dollar, the Euro and the Renminbi would be more stable than the current bipolar system. By adopting a panel regression model, this paper will first study the factors affecting the level of international use of a currency. The results obtained from the model will then be used for simulating the currency shares in the international reserve holdings under different scenarios. Finally, we can compare the standard deviations of the international reserve holdings with different currency combination so as to infer which international monetary system is more stable.

III Data and Empirical Estimate

a. The main determinants of the international use of a currency

Given China's restrictions on its capital account, the international use of the Renminbi still remains at a low level. This paper adopts a panel regression model for analyzing the main determinants of the international use of a currency so as to study the impact of the financial reform in China on the internationalization of the Renminbi. As mentioned in the introduction section, this paper measures the degree of international use of a currency by using the currency shares in international reserve holdings (*SHARE*). Regarding the independent variables, share of world GDP (*GDP*) and share of total value of world trade

(*TRADE*) are chosen to represent the size of output and trade, respectively. While share of stock market capitalization in the total of the five sampling countries (*STOCKCAP*) is used as an indicator for the development of the financial market, the interest rate differential (*IR*) computed as the difference between the nominal interest rate of a country and the average of the five sampling countries is used to represent the financial market condition of the issuing country. With respect to the stability in the value of the currency, the volatility of the exchange rate of the currency (*EXVOL*) and the inflation differential (*INF*) computed as the difference between the inflation rate of a country and the average of the five sampling countries are used as the two indicators.

Existing literature tends to include only the economic determinants of the international use of a currency. Nevertheless, history suggests that the degree of international use of a currency tends to move with the political and military preeminence of the issuing country. For instance, the British Pound and the U.S. dollar were not only the key currency during the Gold Standard period and the Bretton Woods period respectively, but their issuing countries were also a political and military superpower. According to Mundell (1998), the stability of the value of a currency under the current Jamaica System depends crucially on the confidence in the political stability of the issuing country and its military power as the supply of fiat currency is not backed by any physical commodities. In order to study the impact of political condition on the level of international use of a currency, this paper also includes the share of military expenditure in domestic GDP (*MIL*) and a political stability index (*POL*) in the model as indicators for the military power and political status of the issuing country.

Based on Chinn and Frankel (2008) and Li and Liu (2008), the model to be estimated can be represented by the following equation:

$$SHARE_{ii} = \beta_0 + \beta_1 GDP_{ii} + \beta_2 TRADE_{ii} + \beta_3 STOCKCAP_{ii} + \beta_4 IR_{ii} + \beta_5 EXVOL_{ii} + \beta_6 INF_{ii} + \beta_7 MIL_{ii} + \beta_8 POL_{ii} + \varepsilon_{ii}$$
(1),

where i refers to the five international currencies, including the U.S. dollar, Euro, British Pound, Japanese Yen and Swiss Franc and t represents time period. In light of the emergence of the Euro in 1999, this paper uses annual data covering the period of 1999 to

2009. While the official foreign reserves data is obtained from the Currency Composition of Official Foreign Exchange Reserves Database (COFER) of the International Monetary Fund (IMF), data on a country's GDP, inflation rate, stock market capitalization and share of military expenditure in domestic GDP are all available from the World Development Indicators Database of the World Bank. In particular, data on a country's GDP is in constant 2000 U.S. dollar. The sources of the data on a country's nominal interest rate, total value of trade and political stability index are OECD database, UNCTAD database and Euromoney Magazine, respectively. Regarding the exchange rate volatility of a currency, the figures are computed as the 12-month standard deviation of the log first difference of the SDR exchange rate obtained from the International Financial Statistics of the IMF.¹ According to Chinn and Frankel (2005), the functional form of Equation (1) tends to be nonlinear as the shares of the currency in international reserve holdings are bounded between 0 and 1. Hence, we follow Chinn and Frankel (2005) in using a logistic transformation of the dependent variable to extend its boundary to $(-\infty, +\infty)$.² With logistic transformation, Equation (1) can be written as:

 $logistic(SHARE_{ii}) = \beta_0 + \beta_1 GDP_{ii} + \beta_2 TRADE_{ii} + \beta_3 STOCKCAP_{ii} + \beta_4 IR_{ii} + \beta_5 EXVOL_{ii}$ (2) $+ \beta_6 INF_{it} + \beta_7 MIL_{it} + \beta_8 POL_{it} + \varepsilon_{it}$

Table 1 presents the regression results obtained by estimating the model shown in Equation (2). The results show that all the independent variables included in the model have significant impact on the currency shares in international reserve holdings, except STOCKCAP and EXVOL. Specifically, the positive impact of the share of world GDP and share of total value of world trade on the dependent variable implies that the size of the economy in terms of output and trading activities is a crucial determinant of the international use of a currency. While the currency share in international reserve holdings tends to increase with the nominal interest rate differential, it declines with the inflation differential. The latter suggests that the degree of international use of a currency depends on its exchange rate volatility. The military expenditure of a country appears to have a positive impact on the currency share, which indicates that strong national defense would

¹ Taking into account the emergence of the Euro in 1999, the exchange rate volatility of all the five currencies in 1999 are computed as the 11-month standard deviation of the log first difference of their corresponding SDR exchange rates. ² Logistic(share) = log(share/(1-share))

facilitate the internationalization of the currency. Given the negative sign of the coefficient of *POL*, our results show that the currency share would decline as the political stability of the issuing country increases. Although this result is not in line with the theory, it tends to be supported by the fact. For instance, the Euro's share in international reserve holdings is higher than that of the Swiss Franc even though the Euro area has a lower political stability index than Switzerland. In general, the coefficients of the independent variables in Table 1 suggest that the military expenditure has the largest impact on the currency share, followed by the GDP of the issuing country. In other words, it is necessary for a country to have strong national defense and economic power in order to have its currency to become an international currency.

	Equation 2		
Constant (β_0)	0.9021		
	(1.1806)		
GDP_{it}	3.7780***		
	(1.3237)		
$TRADE_{it}$	2.5250***		
	(0.5468)		
STOCKCAP _{it}	1.4431		
	(0.8766)		
IR _{it}	0.0954***		
	(0.0262)		
EXVOL _{it}	-0.9498		
	(3.7380)		
INF _{it}	-0.1456***		
	(0.0503)		
MIL _{it}	32.6285***		
	(6.0779)		
POL _{it}	-0.1543***		
	(0.0468)		
No. of observations	55		
Adjusted R ²	0.9745		

Table 1 Regression results of the main determinants of a currency's international use

Note: * significant at 10%, ** significant at 5%, *** significant at 1%.

b. Simulation of the currency shares in international reserve holdings

China's restrictions on the convertibility of the Renminbi and its financial market hinder the internationalization of the Renminbi. Nonetheless, the degree of international use of the Renminbi would increase gradually given China's financial reform and its rapid economic development. In order to project the currency shares in 2020 under the two scenarios: (1) the convertibility of the Renminbi remains unchanged; (2) the Renminbi is freely convertible and become one of the international currencies, we first make the following assumptions regarding the independent variables in Table 1: i) China's real GDP growth rate remains unchanged at the level in 2009 before it drops to 7% in 2012 and maintains through 2020; the annual real GDP growth rates of other countries for the period of 2010 to 2020 equal to the corresponding average growth rates over the period of 2005 to 2009; the stock market capitalization of every country grows at the same rate as its real GDP growth rate;

ii) the nominal interest rate and inflation rate of each country maintain at their average rates over the past 5 years throughout the projection period;

iii) the share of total value of world trade, exchange rate volatility, share of military expenditure in domestic GDP and political stability index of each country stay the same as their respective levels in 2009.

Under the above assumptions, the U.S. and the Euro area will continue to be the two largest economies in the world, but their shares of world GDP will drop to 25.06% and 14.81% in 2020, respectively. On the contrary, China's share of world GDP is expected to rise sharply from 7.39% in 2009 to a level comparable to that of the Euro area in 2020, which is 12.69%. With respect to the size of the financial market, the U.S. will still be able to maintain its leading role with the largest stock capitalization. Meanwhile, China's stock market capitalization is expected to surpass the Euro area and account for 17.66% of the total of the six countries by 2020.

On the basis of the results presented in Table 1 and the above assumptions, we construct the projected currency shares under the two aforementioned scenarios. In Scenario 1, where the Renminbi is not freely convertible over the projection period, it can be observed from Figure 1 and Table 2 that the U.S. dollar will continue to be the leading international currency with currency share reaching 66.85% by 2020. The Euro, which is expected to account for 26.96% of the international reserve holdings by 2020, will also remain its currency status as the second major international currency. In other words, without free convertibility of the Renminbi, the international monetary system will continue to be a bipolar one. On the other hand, if China removes its restrictions on the convertibility of the Renminbi, the projection results of Scenario 2 presented in Figure 2 show that the Renminbi will become the third major international currency with currency

share comparable to that of the Euro. Given the introduction of a third international currency, the currency share of the U.S. dollar is expected to decline to 53.32% by 2020. Yet, its leading role in the international monetary system will remain unchanged. According to our projection results shown in Table 2, the internationalization of the Renminbi would facilitate the reform of the current bipolar monetary system even though it cannot rival the currency status of the dollar by 2020.



Figure 1 Projected currency shares in scenario 1



Figure 2 Projected currency shares in scenario 2

Table 2 Projected currency shares by 2020

	Scenario 1	Scenario 2
U.S. dollar	66.85%	53.32%
Euro	26.96%	21.50%
Renminbi	-	20.24%
British Pound	3.29%	2.63%
Japanese Yen	2.57%	2.05%
Swiss Franc	0.32%	0.26%

c. The stability of the international reserve holdings

As previously mentioned, the objective of introducing a third major international currency into the system is to enhance its stability. This paper measures stability by using the standard deviation of the international reserve holdings as an indicator. The standard deviation can be computed through the following equation:

$$\boldsymbol{\sigma}_{p} = \sqrt{\sum_{i=1}^{n} \sum_{j=1}^{n} W_{i} W_{j} \boldsymbol{\rho}_{i,j} \boldsymbol{\sigma}_{i} \boldsymbol{\sigma}_{j}}$$
(3),

where *i* and *j* refer to different international currency and *w*, ρ and σ represent currency share in international reserve holdings, correlation coefficient between any two currencies and exchange rate volatility of the currency measured by its standard deviation, respectively. The correlation coefficients between the currencies are computed as the 12-month

correlation coefficients of the log first difference of the SDR exchange rate. By assuming the exchange rate volatility of the currencies to maintain at their respective level in 2009 throughout the projection period, we can compute the standard deviations of the international reserve holdings under the following four scenarios:

i) the restrictions on the convertibility of the Renminbi has not been removed by 2020 and the currency shares in international reserve holdings will follow the projection results in Scenario 1 of Table 2; the correlation coefficients between the currencies remain unchanged at their respective levels in 2009 as shown in Table 3 Scenario 1;

ii) the Renminbi becomes freely convertible in 2010 and the currency shares in international reserve holdings will follow the projection results shown in Scenario 2 of Table 2; the correlation coefficient between the U.S. dollar and the Renminbi will decline from 0.9994 in 2009 to 0.5 in 2020 as the Renminbi will become a substitute of the U.S. dollar in the international monetary system; the correlation coefficients between all other currencies remain unchanged at their respective levels in 2009;

iii) the Renminbi becomes freely convertible in 2010 and the currency shares in international reserve holdings will follow the projection results shown in Scenario 2 of Table 2; the correlation coefficient between the U.S. dollar and the Renminbi will decline from 0.9994 in 2009 to 0 in 2020; all other correlation coefficients remain unchanged at their respective levels in 2009;

iv) the Renminbi becomes freely convertible in 2010 and the currency shares in international reserve holdings will follow the projection results shown in Scenario 2 of Table 2; the correlation coefficient between the U.S. dollar and the Renminbi will decline from 0.9994 in 2009 to -0.5 in 2020; all other correlation coefficients remain unchanged at their respective levels in 2009.

Correlation coefficients	U.S. dollar	Euro	Renminbi			British Pound	Japanese Yen	Swiss Franc	
U.S. dollar	1	-0.6639	Scenario i 0.9994	Scenario ii 0.5	Scenario iii 0	Scenario iv -0.5	-0.0342	-0.2234	-0.5391
Euro	-	1	-0.6601			0.0864	-0.4534	0.9198	
Renminbi	-	-	1			-0.0402	-0.2192	-0.5333	
British Pound	-	-	-				1	-0.5067	0.0068
Japanese Yen	-	-	-			-	1	-0.4091	
Swiss Franc	-	-	-			-	-	1	
Exchange rate volatility (standard deviations)	1.83%	2.34%	1.84%		2.33%	2.96%	2.33%		

Table 3 Correlation coefficients between the currencies and exchange rate volatility

Regardless of the scenarios, our results presented in Table 4 suggest that the internationalization of the Renminbi will enhance the stability of the international monetary system. In particular, the international reserve holdings in Scenario iv appears to be the most stable with the smallest standard deviation. In general, it can be concluded that the reform of the international monetary system facilitated by the internationalization of the Renminbi will enhance the stability of the system even if the Renminbi cannot rival the currency status of the dollar by 2020.

Table 4 Standard deviations of the international reserve holdings

			U	
	Scenario i	Scenario ii	Scenario iii	Scenario iv
σ_p	0.89%	0.86%	0.61%	0.097%

IV Concluding Remarks

One of the purposes of implementing an international monetary system is to promote sustainable economic development of the world through standardizing the international payment system, which involves regulations on the exchange rate system, the financing system of countries with current account deficit and the payment system of the issuing countries of international currencies. In other words, it provides a set of standardized mechanisms for international transactions on trading and financial activities with a common consensus on the currencies used for transactions and regulations on the supply of those currencies. Such standardized mechanisms can mitigate the shocks to the world economy triggered by financial speculations as it helps stabilizing the exchange rates. Hence, the stability of the system is particularly crucial for facilitating the economic development of

the world given its impact on the trading activities, currency circulation, exchange rate and foreign reserves of each country.

The recent debt ceiling crisis of the U.S. and the European sovereign debt crisis have revealed the inherent weaknesses of the current bipolar international monetary system. Our quantitative analysis indicates that the Renminbi will become the third major international currency if China allows it to be freely convertible. The reform of the international monetary system facilitated by the internationalization of the Renminbi will not only improve the stability of the system and facilitate the world economic growth, but it will also benefit China by improving its political status and facilitating its foreign trade and investment. Hence, China should urge for the internationalization of the Renminbi so as to enhance its influence on the world economy and improve the stability of the international monetary system.

Note: This English version is translated from the Chinese version. In the event of any discrepancy between the Chinese and English versions, the Chinese version shall prevail.

References:

- Chen, H.Y., Peng, W.S. and Shu, C. (2009), "The Potential of the Renminbi as an International Currency." *BIS Asian Research Program Research Paper*, August.
- Chinn, M. and Frankel, J. (2005), "Will the Euro Eventually Surpass the Dollar as Leading International Reserve Currency?" *NBER Working Paper* No. 11510.
- Chinn, M. and Frankel, J. (2008), "Why the Euro will Rival the Dollar: Commentary." *International Finance* 11(1), 49-73.
- Lee, J.W. (2010), "Will the Renminbi Emerge as an International Reserve Currency?" *In:* Sachs, J.D., Kawai, M., Lee, J.W. and Woo, W.T. (ed.) *The Future Global Reserve System: An Asian Perspective.* Manila: Asian Development Bank.
- Mundell, R.A. (1998), "What the Euro Means for the Dollar and the International Monetary System." *Atlantic Economic Journal* 26(3), 227-237.
- Mundell, R.A. (2000), "The Euro and the Stability of the International Monetary System." *In:* Mundell, R.A. and Clesse, A. (ed.) *The Euro as a stabilizer in the international economic system.* Boston: Kluwer Academic.
- Zhou, X.C. (2009), "Reform the International Monetary System." Available at: http://www.pbc.gov.cn/publish/english/956/2009/20091229104425550619706/2009 1229104425550619706 .html [Accessed: 08/06/2011].
- 李稻葵和劉霖霖,2008,「人民幣國際化:計量研究及政策分析」,《金融研究》, 2008 年第 11 期,第 1-16 頁。
- 宋曉峰,2004,「國際貨幣的競爭穩定」,《世界經濟研究》,2004年第3期,29-33 頁。
- 宋曉玲,2010,「人民幣國際化:基於歷史慣性視角的實證分析」,《上海金融》, 2010年第10期,第45-49頁。
- 熊愛宗和黃梅波,2010,「國際貨幣多元化與國際貨幣體系穩定」,《國際金融研究》, 2010年第9期,第21-28頁。