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How Far Can Renminbi Internationalization Go?

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Abstract

Since the formal launch of the renminbi trade settlement scheme in 2009, renminbi internationalization has made impressive inroads. The progress in renminbi trade settlement is especially impressive. However, Hong Kong, China's offshore renminbi deposits failed to make significant progress as expected. The question of how far renminbi internationalization can go has become a common concern in the international financial community. This paper argues that while a contributing factor is the sheer size of the People's Republic of China's (PRC) trade and the convenience of using the renminbi for transaction settlements, exchange rate arbitrage and interest rate arbitrage matter also. Profits from arbitrages are the major driving forces of, but do not constitute a sustainable basis for, internationalization.

A fundamental constraint for renminbi internationalization is the PRC's capital controls. Before fully opening up its capital account and making the renminbi freely convertible, however, the PRC needs first to put its own house in order. Macroeconomic stability has to be achieved; the high ratio of financial leverage should be reduced; a rational and flexible interest rate structure must be created; and risk management capacity across industries should be established. Most importantly, the PRC must make the renminbi exchange rate flexible to reflect demand for and supply of foreign exchange in the market.

The renminbi can and will become a major international currency eventually, but the road to internationalization is bound to be long and bumpy.

JEL Classification: F31, F33

Contents

1. INTRODUCTION

Over the past 4 years since the launch of the renminbi trade settlement scheme, renminbi internationalization has made impressive inroads. In Hong Kong, China, a renminbi offshore market has been established. International investors have benefited greatly from the renminbi business in Hong Kong, China. Coveting the gains, many economies are trying to follow suit. Renminbi offshore markets in Singapore, Taipei,China, and some European countries have begun to take shape. However, all is not well with renminbi internationalization. While the progress in renminbi trade settlement has more or less met market expectations, the use of the renminbi as a store of value has been lackluster in recent years, after the initial dramatic increase in the renminbi deposits held by nonresidents in Hong Kong, China. The question of how far renminbi internationalization can go has become a common concern in the international financial community.

This paper attempts to identify the factors that are behind the evolution of renminbi internationalization and explain why a certain pattern in renminbi internationalization has emerged during the evolution. It argues that despite the impressive progress in renminbi internationalization, due to the changes in the domestic conditions in the People’s Republic of China (PRC) and the international environment, the speed of the internationalization is likely to slow in the near future.

An important point the paper makes is that the PRC should maintain its gradualist approach toward capital account liberalization, even though the acceleration of capital account liberalization may give renminbi internationalization a great boost.

The next section discusses the evolution of the motivations of the PRC monetary authority for promoting renminbi internationalization. The third section discusses the problems of and progress in renminbi internationalization made with the road map. The fourth section deals with the relationship between capital account liberalization and renminbi internationalization. The fifth section explores different prospects for renminbi internationalization according to different road maps. And the final section presents concluding remarks.

2. WHY AND HOW RENMINBI INTERNATIONALIZATION WAS BROUGHT INTO THE POLICY AGENDA

2.1 The Global Financial Crisis and Decision to Internationalize the Renminbi

There is no other country except the PRC that has ever made the internationalization of their own national currency a national policy. Taking into consideration the fact that the Government of Japan initially launched the internationalization of the yen only reluctantly, yielding to the pressure from the United States (Takagi 2009), the PRC is the only country that has tried to internationalize its own currency on its own initiative. It begs the question as to why the PRC decided to push renminbi internationalization rather suddenly in the beginning of the second quarter of 2009.

In the 1990s, the Government of the PRC made the integration of the country’s economy with the global economy a national policy. The integration has two important dimensions. The first is to participate fully in the international division of labor. The entry into the World Trade Organization (WTO) is a landmark for this dimension. The second is to participate fully in the global financial system. In 1994, the renminbi was devalued and a managed floating system was introduced. The PRC liberalized its current account by accepting Article VIII of the International Monetary Fund (IMF) in 1996 and set a road map for capital account liberalization at roughly the same time. It was expected that, in a few years' time, the capital account would be fully liberalized and the renminbi fully convertible. However, the Asian financial crisis brought the process of capital account liberalization to an abrupt stop. During the crisis, the renminbi was repegged to the United States (US) dollar and capital control was tightened. The peg to the US dollar and capital control helped the PRC weather the storm of the Asian financial crisis. In 2001, the PRC came out of the crisis unscathed.

In the 2000s, the maintenance of an annual growth rate higher than 8% became the single most important policy objective for the PRC government. This growth rate was regarded as indispensable for the creation of 8 million–10 million jobs each year needed to absorb the newly increased working-age population. To maintain a competitive exchange rate for promoting exports was a key monetary policy objective. Faced with strong appreciation pressure on the renminbi, which in turn was created by large current and capital account surpluses, the PRC monetary authority adopted a policy of tight controls over capital inflows but loose controls over capital outflows. However, because of the strong renminbi appreciation expectations, hot money flowed in unabatedly and made the renminbi appreciation pressure even stronger. In response, the People's Bank of China (PBOC) intervened in the foreign exchange market extensively, which in turn led to rapid accumulation of foreign exchange reserves. The PRC's foreign exchange reserves skyrocketed from about US$500 billion in 2003 to more than US$2 trillion before the onset of the global financial crisis.

The global financial crisis hit the global economy badly and the PRC was not an exception. Despite PRC financial institutions' exposure to the financial derivatives originating in the US and direct losses caused by the fall in the prices of assets such as mortgage-backed securities (MBS) and collateralized debt obligations (CDO) being limited, the PRC was on the brink of massive capital losses on its foreign exchange reserves, especially on its US government-sponsored enterprise (GSE) bonds.

The fact that the PRC had fallen into a dollar trap meant that the PRC had to satisfy with low returns on its foreign exchange reserves and bear large capital losses. In 2008–2009, the PRC's bigger worry was capital losses because of default, dollar devaluation, and inflation. When the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) were on the brink of bankruptcy, some officials within the PRC government were extremely concerned. At the time, the PRC held more than $400 billion in GSE bonds. Only when the two GSEs were placed into conservatorship on 6 September 2008 were those officials able to a breathe a sigh of relief.

The Federal Reserve's quantitative easing accompanied by the Treasury's intervention succeeded in stabilizing the US financial market. The PRC became less concerned about a default on the US GSE bonds. With rapid expansion of the Federal Reserve's balance sheet, however, the PRC had to worry about the devaluation of the US dollar and inflation in the future, all of which inevitably would lead to significant capital losses on the PRC's foreign exchange reserves.

On 13 March 2009, at a news conference for the annual meeting of the National People's Congress, very unusually, then Premier Wen Jiabao for the first time expressed publicly his worries about the safety of PRC assets in the US. He said, "We lent such [a] huge fund to the United States and of course we're concerned ... to speak truthfully, I am a little bit worried" (*Xinhua* 2009).

What was the PRC supposed to do? The most obvious answer was to diversify away from US government securities. Certainly, the PRC has done something on it. However, as pointed out by Krugman (2009), "[The People's Republic of] China now owns so many dollars that it can't sell them off without driving the dollar down and triggering the very capital loss its leaders fear." That is to say nothing of the fact that the PRC has continuously added new foreign exchanges to its reserves at a dazzling speed.

On 23 March 2009, 10 days after Premier Wen's comments, PBOC Governor Zhou Xiaochuan published an essay, in which he raised the question of "what kind of international reserve currency do we need to secure global financial stability and facilitate world economic growth" (Zhou 2009). He pointed out that the goal of the reform of the international monetary system was "to create an international reserve currency that is disconnected from individual nations and is able to remain stable in the long run, thus removing the inherent deficiencies caused by using credit-based national currencies." Zhou expressed the wish to create such a supranational currency on the basis of special drawing rights (SDR). According to Zhou, "the role of the SDR has not been put into full play due to limitations on its allocation and the scope of its uses." He suggested that the IMF and countries concerned should "actively promote the use of the SDR in international trade, commodities pricing, investment and corporate book-keeping" and "(c)reate financial assets denominated in the SDR to increase its appeal." Zhou's proposal is an attempt to deprive the US dollar of its "exorbitant privilege," which is a desire shared by many countries in the world. As a first step, Zhou hoped that a wider use of the SDR as a unit of account, means of exchange, and store of value will help the PRC reduce the risks its US dollar-denominated foreign exchange reserves are facing.

However, the call for the reform of the international monetary system went nowhere. On 24 March 2009, US President Barack Obama dismissed Governor Zhou's proposal by saying that there was no need for a world currency and the US dollar was very strong at the current time. Surprisingly, even the PRC government failed to treat the idea of the reform of the international monetary system seriously. A few days after Governor Zhou's essay was published, a spokesman of the Ministry of Foreign Affairs distanced the government from his proposal by saying that the proposal for a supranational reserve currency was no more than a personal idea.

What about the strengthening of the regional financial cooperation? By pooling together individual countries' foreign exchange reserves, the Chiang Mai Initiative (CMI), a network of multilateral currency swap agreements, should enable countries in East Asia to reduce the amount of foreign exchange reserves they had to hold individually for the defense of their own currencies. Though the CMI has given the PRC an outlet to diversify its foreign exchange reserves, the CMI could not help the PRC very much to diversify its foreign exchange reserves. Despite all the efforts, the CMI rescue mechanism was never triggered during the subprime crisis. Ideally, on the basis of the CMI, East Asian countries could move toward the creation of a regional monetary union and a regional currency. However, the conflicts of interests among East Asian countries make this idea look unrealistic. After the euro crisis, the idea of a regional currency is all but forgotten. There has not been much talk about regional financial cooperation in the PRC during and after the global financial crisis.

Before 2009, there were only some sporadic discussions on renminbi internationalization. On 9 March 2008, then Senior Deputy Governor of the PBOC, Wu

Xiaoling, said that conditions for renminbi internationalization were not mature and it was not on the agenda yet, though she thought that the issue of creating an offshore financial center in Hong Kong, China should be studied.[1] On 17 September 2008, Wu pointed out that to make the renminbi international, two conditions must be met: first, full convertibility of the renminbi; and second, the width and depth of the renminbi financial market has been made comparable with those of the US dollar financial market.[2] In December 2008, some economists discussed the possibility of issuance of Panda bonds (bonds denominated in renminbi) by nonresidents (Yu 2008). The liquidity shortage caused by the failure of Lehman Brothers gave the renminbi an opportunity to play a role in alleviating the global liquidity shortage. In fact, after the collapse of Lehman Brothers, the Republic of Korea suffered an acute liquidity shortage. It sought help from the PRC, which sitting on a huge pile of foreign exchange reserves certainly could. However, there were worries in the PRC about possible dollar devaluation, which would cause losses to the PRC on its dollar-denominated loans. Nevertheless, the PRC could lend renminbi to the Republic of Korea by purchasing Panda bonds issued by Koreans, who in turn could use the borrowed renminbi to buy dollars from the PRC. By doing so, while the Republic of Korean could obtain the dollars it needed, the PRC could promote renminbi internationalization as well as reduce its holding of dollar-denominated government securities. However, neither government showed interest in exploring such a possibility. With the Federal Reserve's swap arrangements with the Republic of Korea, the liquidity problems were solved rather quickly. The PRC lost an opportunity to promote renminbi internationalization by lending to a foreign country in renminbi.

Interest in renminbi internationalization surged rather suddenly in 2009. The causes of the rising interest in renminbi internationalization can be summarized as follows. First, the reform of the international monetary system was very difficult without the support of the US government. Few industrialized countries were really serious about replacing the US dollar with the SDR. At the same time, the PRC leadership had no stomach to challenge the supremacy of the US dollar. This perhaps is the reason why Governor Zhou's proposal for a "supranational currency" was dismissed as "personal" by other Chinese officials. At the time, the mantra of the PRC leadership was not "rocking the boat." Furthermore, the reform of the international monetary system is not only an important political and economic issue but also a technically complicated one. PRC technocrats were not sophisticated enough to handle all the complications of this issue yet. Hence, after having caused a stir, the PRC disengaged quickly and left countries such as the Russian Federation and France to talk about the reform of the international monetary system. In the PRC, people started asking the question: If the regional financial cooperation is going nowhere and the international community has not yet made up its mind on the use of the SDR as a unit of account, means of exchange, and store of value in place of the US dollar, why can the PRC not use its own currency to fulfill these functions? Compared with the reform of the international monetary system and the promotion of the use of the SDR, renminbi internationalization would allow the PRC to pursue its policy objectives on its own initiative without waiting for outsiders' consent.

Second, as a result of the liquidity shortage and credit crunch caused by the collapse of the MBS and CDO markets, the renminbi's international acceptability increased significantly. On 12 December 2008, the PBOC and the Bank of Korea signed a currency swap agreement of 200 billion yuan. In the following 3 months, the PBOC

[1] Reported by Network of Global Foreign Exchanges (Huan Qiu Wai Hui Wang), 10 March 2008.

[2] Reported by Shanghai Securities Daily, 17 September 2008.

signed similar agreements with the Hong Kong Monetary Authority (HKMA), the Central Bank of Malaysia, the Bank of Russia, Bank Indonesia, and the Central Bank of Argentina, respectively. The strong position of the renminbi in the wake of the subprime crisis led the PRC to believe that the renminbi can be made an international currency.

Third, national pride could be also a contributing factor. This is similar to when the Japanese government claimed that the use of the yen in international transactions was not "commensurate with the share of the Japanese economy in the world and Japan's status as the world's largest net creditor nation" (Takagi 2009, 75). This argument means nothing to economists, but it may mean a lot to politicians in decision-making positions.

The consensus view is that the internationalization of a national currency brings important benefits to the issuance country because the internationalization of a national currency would (i) reduce exchange rate risks for the country's enterprises, (ii) reduce the need for holding more foreign exchange reserves, (iii) promote trade by reducing transaction costs, and (iv) improve the competitiveness of the currency issuance country's finance sectors. These benefits should be obvious enough to encourage the PRC to pursue renminbi internationalization.

However, something puzzling still remains. First, renminbi internationalization is a long-term process and will take years, if not decades, to realize. Hence, it is difficult to imagine how renminbi internationalization can help the PRC reduce exchange risks and preserve the value of its foreign exchange reserves, as well as other objectives in the wake of the subprime crisis.

Second, by the second half of 2009, the US financial market had stabilized, and there was no longer an immediate threat to the safety of the PRC's foreign exchange reserves by default, dollar devaluation, and fall in prices of US government securities.

Third, currency internationalization requires capital account liberalization. Each step in renminbi internationalization is more or less conditional on certain steps in capital account liberalization. However, because the PRC's financial system is still fragile and many domestic financial reforms are still incomplete, the liberalization of the capital account may cause serious financial instability to the country's economy. The PRC monetary authority knows well the costs and benefits of renminbi internationalization as well as the risks that capital account liberalization will bring about.

Then why did the PRC suddenly become so interested in promoting renminbi internationalization? According to Wu (2011), "the ideal sequencing for renminbi internationalization is to reform the exchange rate regime ('formation mechanisms') first, and then to promote the convertibility of the renminbi under capital account and make the renminbi a settlement currency." However, as Wu pointed out, "it is too difficult to reach consensus among all parties concerned on how to reform the exchanger rate (regime). Hence, the PBOC looks one way and rows another. The promotion of the use of the renminbi for international trade settlement… will force us to speed up capital account liberalization with a 'fight or die' attitude. Because so many renminbis have flown out of [the People's Republic of] China via renminbi import settlement, you have to create channels to allow these renminbis to flow back. Without channels for recycling, no one will be interested in using renminbis for trade settlement. Thus, pressures will be built up to force open [the People's Republic of] China's capital account." In Wu's view, "within 5 years, [the People's Republic of] China should be able to realize the convertibility of renminbis under capital account" (Wu 2011). Here, capital account liberalization was treated as the objective per se rather than a condition for renminbi internationalization. In June 2011, a Wall Street Journal report (2011) made a wild guess that Governor Zhou "used the language of economic nationalism to push an agenda that ultimately would loosen state control of the economy by making the yuan, also known as the renminbi, or RMB, more dependent on market forces than government orders. …… Make the policy arguments so attractive that decision makers will approve the ideas without realizing the implications." In fact, the PBOC's intention to use renminbi internationalization to promote capital account liberalization has become increasingly clear following the passage of time.

It is fair to say that the PBOC indeed wishes, via renminbi internationalization, to reduce exchange rate risks and the holding of foreign exchange reserves, promote trade, and improve the competitiveness of the PRC's finance sectors. However, besides and beyond these commonly understood objectives, to promote capital account liberalization perhaps is a more immediate and important objective for the PBOC.

3. HOW RENMINBI INTERNATIONALIZATION HAS BEEN PURSUED

3.1 Road Map of Renminbi Internationalization

To promote renminbi internationalization, different routes can be taken. The PBOC has adopted what I call a "functional approach"; that is, to promote the use of the renminbi as a settlement currency and investment currency, and finally somehow to make renminbi foreign exchange reserves for central banks of foreign countries. It is worth noting that this approach is exactly the same as what was proposed by Zhou regarding the use of the SDR as a supranational currency in place of the US dollar.

In line with the "functional approach," there are still different routes that can be pursued to internationalize the renminbi. It can begin with either running a trade deficit or a capital account deficit. The US is running a current account deficit and hence it can provide dollars to the rest of the world via its current account. Normally, if a country is running a current account surplus, it will be able to provide liquidity to the rest of the world by running a capital account deficit. Japan is a case in point. The PRC's international balance of payments structure is abnormal in that it runs both a current account surplus and a capital account surplus at the same time. How to provide renminbi liquidity to the rest of the world is a big challenge to the PRC's monetary authority.

As a country with "twin surpluses," to promote the use of the renminbi, the PRC can begin with using the renminbi either as an import settlement currency or as an investment currency for outbound foreign direct investment (FDI) or foreign lending. The PRC's monetary authority chose the former route. Then, in order to encourage nonresidents to accept renminbi payments and create a renminbi fund pool by holding renminbi, channels have to be created for nonresidents to invest their renminbi proceeds in renminbi assets—so-called "renminbi recycling mechanisms." Residents in Hong Kong, China are encouraged to hold renminbi deposits, renminbi corporate bonds, and renminbi government bonds. They are also allowed to invest in the PRC's A-share markets (renminbi share markets) with some limits. It is assumed that following the increase in the holding of renminbi-denominated assets, nonresidents will use more and more renminbi in trade and financial transactions. As a result of extensive use of renminbi in trade and financial transactions and investment, according to officials with the PBOC, the renminbi will in some way be used increasingly as foreign exchange reserves by foreign central banks and eventually become a key international currency. To supplement this basic approach that begins with using the renminbi as an import settlement currency, the PRC government and the PBOC also promote renminbi internationalization via channels such as signing currency swap agreements with foreign central banks, mutually holding government bonds by the ministries of finance, and reducing the use of the dollar as a vehicle currency in bilateral trade via official agreements with relevant foreign governments.

The fundamental problem with the PRC's road map for renminbi internationalization is that because it is running a current account surplus, it cannot provide liquidity to the rest of the world without increasing its foreign liabilities correspondingly. On the one hand, if the gap between renminbi import and export settlements fails to increase, the use of the renminbi as a store of value will fail to increase. On the other hand, the increase in the gap between renminbi import and export settlements means that, corresponding to the increase in the PRC's renminbi liabilities, it has to hold increasingly more dollar-denominated assets, which is just what the PBOC has been trying to avoid by promoting renminbi internationalization. Hence, for a country with a current account surplus, relying on renminbi trade settlement to provide offshore markets renminbi liquidity is a way to defeat the very objective of renminbi internationalization (Yu 2012).

3.2 Progress in Renminbi Internationalization

3.2.1 Renminbi as Unit of Account

To use the renminbi as a unit of account in trade and financial transactions should be the foundation of renminbi internationalization in the PRC's chosen road map. However, how to promote the use of the renminbi as an invoice currency for trade transactions and as a denomination currency for financial transactions has not been discussed in the road map. For most foreign observers, the use of the renminbi as a trade settlement currency means that the renminbi is also used as an invoice currency. However, to use the renminbi as a settlement currency does not necessarily mean that the renminbi has been used as an invoice currency. For foreign exporters, to use the renminbi as an invoice currency is beneficial, because the renminbi is a currency in appreciation. For importers in the PRC, however, this is irrational, because it means that they will forfeit the possible gains from the appreciation. Similarly, PRC exporters should be happy to use the renminbi as an invoice currency, but their foreign counterparts should be reluctant to do so. After 5 years of promoting renminbi internationalization, there are still no official or nonofficial statistics on the use of the renminbi as an invoice or denomination currency available. However, anecdotal evidence shows that most PRC enterprises that use the renminbi for trade settlement do not use the renminbi to invoice trade.

3.2.2 Renminbi as Settlement Currency

It is fair to say that the progress in using the renminbi as a settlement currency is impressive. Since the third quarter of 2010, the amount of renminbi trade settlement increased dramatically. According to the HKMA, the volume of renminbi used in cross-border trade settlement between the mainland of the PRC and Hong Kong, China reached 2.6 trillion yuan by the end of 2012. The share of renminbi trade settlement in the PRC's total trade has increased from 3% in 2010 and 8.4% in 2011 to 11% in May 2013.[3]

[3] From the White Paper on Cross-border RMB Business issued by the Bank of China, as reported by Li Jingxia, China Business News, 15 July 2013.

According to the HKMA, total renminbi trade settlement handled by banks in Hong Kong, China in 2012 surpassed 2.6 trillion yuan (US$413 billion), a year-on-year increase of 37% and representing over 90% of the cross-border trade in the mainland of the PRC settled in renminbi .[4]

3.2.3 Renminbi as Store of Value

Based on the renminbi pool created via renminbi import settlement, a renminbi offshore market has been growing rapidly in Hong Kong, China. Renminbi offshore markets in London, Singapore, and Taipei,China are also beginning to take shape.

3.2.3.1 Renminbi Deposits

One of the most important measurements for the progress in renminbi internationalization is the increase in renminbi deposits held by residents of Hong Kong, China, which serve as the basis for the use of the renminbi as a store of value. From the middle of 2010 to the third quarter of 2011, renminbi deposits held by Hong Kong, China residents skyrocketed. It was widely expected that the total amount of renminbi deposits will surpass 1 trillion yuan by the end of 2012.[5]

However, the momentum of demand for renminbi deposits in Hong Kong, China suddenly lost ground in the fourth quarter of 2011. According to the HKMA, total renminbi deposits and outstanding renminbi certificates of deposit stood at 720 billion yuan at the end of 2012 (*China Daily* 2013). This slowdown could be attributed to the weakening of renminbi appreciation expectations, which in turn was attributable to the weakening of the PRC's international balance of payments.

3.2.3.2 Renminbi Bonds

The most popular category of renminbi bonds is called "dim sum" bonds, which are denominated in renminbi and issued in Hong Kong, China.

The PRC's Ministry of Finance issued 20 billion yuan in government bonds in Hong Kong, China on 23 August 2011. This particular issuance was regarded as a major boost to renminbi internationalization and a "big gift" to the people in Hong Kong, China.

According to the HKMA, total issuance of dim sum bonds in 2012 amounted to 112.2 billion yuan and the outstanding amount of dim sum bonds reached 237.2 billion yuan, representing a 62% increase compared to the amount at the end of 2011 (HKMA 2013). However, in 2013, dim sum bond issuance failed to make important headway.

3.2.3.3 Renminbi Loans

In 2010, while the total amount of renminbi customer deposits in banks in Hong Kong, China was 315 billion yuan, renminbi loans extended by them totaled only 2 billion yuan. The loan/deposit ratio was less than 1%. The asymmetry between renminbi deposits and renminbi loans was striking and attributable to the fact that the interest rate on renminbi loans was relatively high and renminbi appreciation expectations were still strong. The asymmetry has been reduced since the fourth quarter of 2011. The improvement in the asymmetry between deposits and loans can be attributed to the

[4] According to a more recent report, renminbi trade settlement in 2010 accounted for only 2.5% of the PRC's total trade. In 2011, the corresponding figure rose dramatically to 9% of total trade *(China Daily* 2013).

[5] As of the end of September 2011, renminbi deposits in Hong Kong, China reached 622.2 billion yuan.

increase in cross-border trade finance and syndicated loans. However, compared with Hong Kong, China's overall loan/deposit ratio, the asymmetry is still very serious. Early in 2013, the Qianhai[6] cross-border lending pilot scheme was launched, enabling companies incorporated in Qianhai to borrow renminbi loans from banks in Hong Kong, China for the development of Qianhai.

3.2.3.4 Renminbi Trade Credit

According to a note released by SWIFT in May 2012,[7] although the share of renminbi trade payment by value in global payments is still negligible, accounting for 0.34% of total trade payment, the share of renminbi in trade finance has been increasing rapidly. Up to the time of the release of the note, the renminbi had a market share of 4% in the global issuance of letters of credit by value. This makes the renminbi the third largest currency in the global issuance of letters of credit by value, after the US dollar and the euro.

3.2.3.5 Renminbi Direct Investment

Since January 2011, PRC enterprises have been allowed to invest offshore in renminbi. Enterprises can raise renminbi funds onshore and remit the funds offshore via onshore banks. Onshore banks' offshore branches can raise renminbi funds onshore and extend loans to enterprises for offshore investment.

3.2.3.6 Renminbi Qualified Foreign Institutional Investors

The most important development in renminbi internationalization is the introduction of renminbi qualified foreign institutional investors (RQFII). The China Banking Regulatory Committee, the PBOC, and the State Administration of Foreign Exchange jointly initiated the RQFII scheme on 16 December 2011. According to this scheme, qualified foreign institutional investors are allowed to invest in the PRC's A-share market in renminbi. At the beginning, the RQFII quota was 20 billion yuan. In April 2012, the quota was raised to 50 billion yuan. In November 2012, it was increased to 200 billion yuan.

3.2.4 Renminbi as Reserve Currency

Initially, the PBOC's swap agreements with other central banks were mainly aimed at providing liquidity support to its counterparts. Renminbi funds obtained by foreign central banks are deposited in the accounts held with the PBOC as PBOC liabilities. At a later stage, the swap agreements are mainly aimed at encouraging foreign central banks to hold renminbi as foreign exchange reserves. Correspondingly, foreign central banks conduct swaps with the PBOC for the purpose of diversification and other benefits.

Besides currency swaps, foreign central banks also buy renminbi bonds as foreign currency reserves. Since September 2010, when Malaysia became the first country to do this, many countries have jumped on the renminbi reserves bandwagon.

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[6] A small area in Shenzhen bordering Hong Kong, China.

[7] A bronze medal for RMB in Trade Finance, SWIFT RMB tracker, May 2012. http://www.swift.com/resources/documents/SWIFT_RMB_Tracker_May_2012.pdf

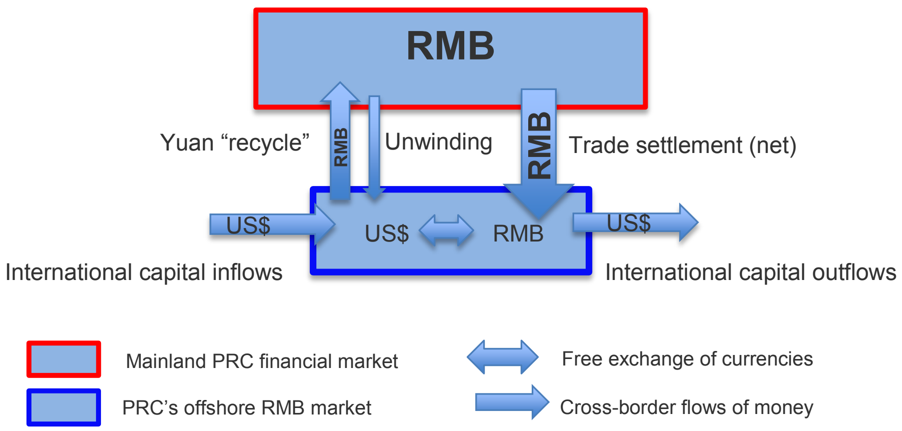
4. RENMINBI INTERNATIONALIZATION AND CAPITAL ACCOUNT LIBERALIZATION

4.1 The Impact of Renminbi Internationalization on Capital Controls

What is at issue is not whether the PRC should eventually open its capital account, though it is a debatable issue; what is at issue is whether the PRC should dismantle the remaining controls with accelerating speed according to a timetable. Before renminbi internationalization was launched in 2009, the bulk of the PRC's capital account had been liberalized. However, in some key areas, capital flows are still subject to tight controls and the renminbi is not convertible in some transactions or convertibility is limited in others. First, in principle, households are not allowed to invest abroad. They can do so only via the so-called qualified domestic institutional investors (QDII). By the end of 2012, 106 financial institutions had obtained QDII status and the total quota for QDII investment was US$86.6 billion. More importantly, each resident's annual purchase of foreign exchanges is capped at US$50,000. Second, overseas borrowing by domestic financial and nonfinancial corporations is subject to strict restrictions. Third, foreign investment in the PRC's equity market is also subject to strict restrictions. Foreign investors can invest in the PRC's B-share market (shares denominated in foreign currencies). They are not allowed to invest in the A-share market (shares denominated in renminbi), unless they invest via the qualified foreign institutional investors (QFII) scheme. Currently, the quota for QFII is US$160 billion. Fourth, nonresidents' investment in the PRC's real estate market is also subject to various restrictions (Chao 2013). It can be seen that the PRC's remaining capital control is mainly aimed at short-term cross-border capital flows.

Before the launch of renminbi internationalization, there were two main channels of short-term cross-border capital flows. First, *over-invoicing imports and under-invoicing exports* or *under-invoicing imports and over-invoicing exports, depending on the changes in renminbi appreciation expectations.* Second, carrying physical notes across the borders or exchanging money through underground money dealers. The situation has changed significantly since the launch of renminbi internationalization. Large amounts of renminbi now can legally move across the borders via the renminbi offshore market in Hong Kong, China with ease (Figure 1).

Figure 1: The Renminbi Offshore Market and Cross-Border Capital Flows



PRC = People's Republic of China, RMB = renminbi.

Source: Drawn by the author.

First, via import settlement, renminbi flow into Hong Kong, China. This can be done via the transactions between mainland firms and their subsidiaries in Hong Kong, China in the name of renminbi import settlement. Second, the "recycling mechanisms" allow the renminbi in Hong Kong, China to be invested in renminbi-denominated assets in the mainland of the PRC. In this way, international investors are able to bypass the PRC's capital controls to invest in renminbi assets that are still forbidden or restricted under the current capital control regime. It is worth emphasizing that although the renminbi trade settlement scheme and recycling mechanisms have partially dismantled the control over short-term cross-border capital flows, restrictions remain. Renminbi that move between the mainland of the PRC and Hong Kong, China have to do so through a settlement system operated by the Bank of China and the quarterly net flows are capped. Furthermore, investment of the "recycled" renminbi in the mainland of the PRC is, as shown, subject to restrictions both in quantity and market destinations.

4.2 A New Stage of Capital Account Liberalization

In February 2012, the PBOC released a policy research report, in which there are four arguments deserving noticing. First, the PRC is in a period of "strategic opportunity" for capital account liberalization and hence its capital account liberalization should be accelerated (Sheng 2012a). Second, there will be no large risks, if the PRC opens its capital account. Third, the traditional view on the sequencing of capital account liberalization does not apply to the PRC. The liberalization of the interest rate, the exchange rate, and the capital account can be implemented at the same time "in a coordinated way." Fourth, there should be a timetable for the liberalization of the capital account.

Recently, some officials from the PBOC went as far as saying that without the liberalization of the capital account, there will be no liberalization of the interest rate and exchange rate. In other words, the liberalization of the capital account is now regarded as a prerequisite for interest rate and exchange rate liberalization, not the other way around. For example, in those officials' view, if the capital account, including short-term cross-border capital flows, is not fully liberalized, the exchange rate decided by the current account balance and long-term capital flows is not a truly market-determined exchange rate.[8]

At this moment in time, 5 years into the global financial crisis, for the majority of PRC economists, "the more important and more immediate benefit from renminbi internationalization is that …(it) will add momentum to reforms," which "include the opening of the capital account, increasing exchange rate flexibility, liberalizing the interest rates, opening the capital markets and reducing entry barriers to the financial industry" (Ma 2012: 9).

It is worth noting that in the PBOC document, renminbi internationalization and the relationship between renminbi internationalization and capital account liberalization were barely mentioned. It can be seen that capital account liberalization is no longer confined as just a condition for renminbi internationalization. Instead, it is regarded as a powerful external force to be released to push through domestic reforms and restructuring. While renminbi internationalization is still a policy goal and being

[8] Internal Conference on Renminbi internationalization, Boyuan Foundation, Beijing, 30 June 2013.

pursued, the scraping of the remaining capital controls has come to dominate the PRC's policy agenda.[9]

4.3 A Digression: Literature on Capital Account Liberalization

In the literature, the main arguments for free movement of capital include the following:

- free flows of capital lead to optimal allocation of resources, and
- capital controls do not work and lead to more market distortions.

Theoretically speaking, it is indisputable that in a perfect world the free flow of capital across the globe improves welfare. The world, however, is not perfect. With regard to an imperfect world, there is no consensus on whether free movement of cross-border capital flows is optimal. It is not difficult to show that with information imperfection and market distortion, a free flow of capital can lead to misallocation of resources (Ocampo, Spiegel, and Stiglitz 2008).

Before the Asian financial crisis, capital controls were universally regarded as "bad." After the crisis, however, the mood of economists as well as government officials has changed. The IMF gradually shifted its stance on the liberalization of capital accounts, admitting that it is necessary to carefully manage and sequence the liberalization process in order to minimize concomitant risks (Ostry et al. 2010, 2011, 2012).

After the 2008–2009 global financial crisis, more countries were resorting to capital controls in one way or another to deal with capital flow volatility. The IMF has recently done a lot to destigmatize the use of capital controls alongside macroeconomic and prudential policies (Ostry et al. 2011).

Perhaps the only exception in this tide of new trend in capital controls is the PRC, whose central bank declared that the country is in "a strategic period of window of opportunities to accelerate capital account liberalization" (Sheng 2012b).

There are few PRC economists who oppose the eventual total liberalization of the capital account and full convertibility of the renminbi. The key difference among them lies in the issue of sequencing. There are different views on the importance of sequencing in the literature. The conventional view emphasizes the importance of achieving macroeconomic stability and developing domestic financial institutions, markets, and instruments before liberalizing the capital account (Johnston 1998). This approach can be called the "gradualist approach." An alternative view stresses constraints on reforms and the limited capacity of countries to reform themselves in the absence of external pressures for reform. This view favors the "big-bang approach."[10] A middle view is that capital account liberalization should be part of a concurrent, integrated, and comprehensive approach to macroeconomic and structural reform (Galbis 1994). The middle way is labeled the "integrated approach" (Kawai and Takagi 2010).

It seems that because of the frustration in pushing further reforms along the gradualist approach that the PRC has adopted since the late-1970s, the PBOC has become more sympathetic toward the big-bang approach.

[9] It seems that the government has adjusted its policy on capital account liberalization again. The tone has become more cautious recently.

[10] See paper by Galbis (1994), which is a survey of the early literature on the sequencing of capital account liberalization.

The PRC's capital account liberalization has kept roughly to the following sequence: liberalizing current account before liberalizing capital account, liberalizing FDI before liberalizing indirect investment, liberalizing long-term capital before liberalizing short-term capital, liberalizing portfolio before liberalizing borrowing, liberalizing capital inflows before liberalizing capital outflows, and so on. However, the issue of sequencing capital account liberalization is not just about the sequencing of items in the capital account for liberalization. More importantly, it is a question of how to build up institutional capacity to manage the risks and minimize the distortions generated in the process of capital account liberalization.

According to a report by the International Bank for Reconstruction and Development (World Bank) and IMF (2005, 317):

> Sequencing is the setting of priorities among financial sector measures, and the appropriate sequencing and coordination of reforms is important for the following reasons:
>
> - Inappropriate sequencing of reforms could cause excessive risk taking and financial instability.
> - Limited institutional capacity necessarily requires some prioritization of reform elements.
> - Given the numerous policy and operational reforms in each area of financial policy, setting priorities could facilitate and encourage the adoption of reforms; hence, this aspect of financial sector assessments is important.

Hence, according to an IMF report (Ishii and Habermeier 2002), because financial liberalization will trigger financial and macroeconomic risks, risk management capacity and its infrastructure should be built up in individual financial markets In the report, in order of complexity and riskiness, markets are divided into money and exchange markets, government bond markets, banking and financial services to target groups, corporate debt and equity markets, and derivatives and asset-backed securities. The following are categories of measures for building up risk management capacity (Ishii and Habermeier 2002):

- Market and product development
- Risk mitigation
- Financial system infrastructure
- Financial institutions restructuring and recapitalization.

Obviously, the building up of risk management capacity in each financial market in a concerted way should precede the full liberalization of the capital account. For example, the development of government bond markets and the establishment of a risk-free yield curve provide the benchmark for pricing corporate bonds and other more risky securities and derivative products. Hence, the formation of the risk-free yield curve in the government bond market should precede the liberalization of capital's access to and exit from the government bond market and other more sophisticated financial markets. Otherwise, the risks created by free movements of capital into and out of these markets are impossible to manage. In contrast, it is difficult to see how the free access to and exit from the government bond market by foreign investors can automatically lead to the buildup of risk management capacity in the market, and why it is a better strategy than the one in which the buildup of risk management capacity takes precedent to the opening up of the market to foreign investors.

4.4 Prerequisites for Full Capital Account Liberalization

The PRC has now entered the stage of liberalizing short-term cross-border capital flows or, more or less equivalently, the full convertibility of the renminbi. If it is accepted to fully liberalize the country's capital account, some prerequisites must be met and a key question is whether it is realistic and affordable for the PRC to set a timetable to complete capital account liberalization "basically" before 2015 and fully before 2020.

Before liberalizing the capital account fully and making the renminbi fully convertible, the government needs to deal with many more problems. Without having solved these problems, a hasty liberalization of short-term cross-border capital flows is dangerous.

First, macroeconomic stability has to be achieved. If the economy suffers from high inflation and serious asset bubbles, the liberalization of short-term capital flows will create large volatility in capital flows, which in turn will further destabilize the economy. Currently, the PRC's inflation is moderate, but, despite the government crackdown, house prices have been increasing continuously. At least in some first-tier cities, the real estate bubbles are serious. Furthermore, because of prevalent overcapacity, profitability is low and falling across industries. The PRC's growth is under serious downward pressure. Hence, the confidence of investors in the economy has reached a record low since the global financial crisis.

Second, financial institutions should be strengthened. With high leverage and a high nonperforming loan ratio, the financial system will become very vulnerable to changes in capital flows, which in turn will make capital flows more volatile. At the moment, the PRC's local government debt and corporate debt are very high. The nonperforming loan rate is not high at the moment but may soon rise rapidly. Since the global financial crisis and the PRC's 4 trillion yuan stimulus package, with enterprise debt estimated to exceed 120% of gross domestic product (GDP) and broad money supply (M2) amounting to more than 180% of GDP, the country's financial vulnerability has risen significantly.

Third, the PRC's financial markets should be further liberalized and a rational interest structure must be created. The benchmark PRC interest rate is commercial banks' interest rate on 1-year deposits set by the PBOC. There is no short-term interest rate in the interbank money market that can be used as a benchmark interest rate. At the same time, there is no well-functioning risk-free yield curve in the government bond market. Hence, there is no well-functioning interest rate system. As a result, it is difficult to price financial assets in different financial markets rationally. This, on top of a high corporate leverage ratio, means that the PRC's risk management capacity is weak. Hence, the financial system in the mainland of the PRC is vulnerable to cross-border speculative attacks.

Fourth, the PRC's exchange rate is still subject to frequent intervention by the PBOC. With an inflexible exchange rate and open capital account, the PRC is bound to lose its monetary independence. Though the sterilization policy by the PBOC was successful in retaining the independence of monetary policy in the past at a considerable cost, with an entirely open capital account, whether the PBOC can maintain monetary independence is doubtful. Furthermore, the lack of flexibility in interest and exchange rates has already created conditions for persistent interest rate and exchange rate arbitrage at the expense of the country's national welfare.

Fifth, emerging economies are under the shadow of the Federal Reserve's quantitative easing tapering. Historical experience has shown that whenever interest rates in the US rise, there will be massive capital outflows from developing countries. If the tapering coincides with the PRC's dismantling of its control over short-term cross border capital flows, the consequences could be disastrous.

Last but not least, the PRC's economic reforms remain incomplete, with property rights not yet clearly defined. Amid ambiguity over ownership and pervasive corruption, the free flow of capital across borders could be used to facilitate money laundering and asset stripping, which in turn would incite social tension. Therefore, the completion of "economic system reform" is of utmost importance as a precondition for full capital account liberalization.

In short, because of the PRC's current economic and financial instability and the volatility of global financial uncertainty, an unforeseen shock could trigger large-scale capital flight, leading to significant currency devaluation, skyrocketing interest rates, bursting asset bubbles, bankruptcy and default for financial and nonfinancial enterprises, and, ultimately, the collapse of the country's financial system. Though the probability for this worst-case scenario to happen is very low, its consequences would be devastating. Hence, the PRC cannot take this risk. In my view, the full liberalization of the capital account should be the last step of economic reforms. The PRC should stick to its gradualist approach. Before full liberalization, the liberalization of the interest rate and exchange rate should be completed, adequate risk management capacity should be built up, and the major points of vulnerability in the economy should be eliminated.

Then what are the implications of the above discussion on capital account liberalization for renminbi internationalization? Renminbi internationalization is closely related with capital account liberalization, and many important steps of renminbi internationalization are conditional on the corresponding development in capital account liberalization. If the PRC does not accelerate capital account liberalization to give nonresidents free access to its financial markets, the incentive for nonresidents to hold the renminbi would be limited. Hence, after the initial euphoria, the pace of renminbi internationalization is likely to slow down, at least in the area of using the renminbi as investment currency.

Despite the enthusiasm shown by the PBOC for speeding up the liberalization of capital control in the recent past, pragmatism prevailed eventually. In fact, in the first quarter of 2013, when PRC enterprises again were using letters of credit enabled by the renminbi trade settlement scheme to engage in interest rate arbitrage and caused very large capital inflows, instead of liberalizing short-term cross-border capital movement to facilitate the arbitrage, the PBOC jointly with the customs authority clamped down on the activities in a prompt manner. As a result, short-term capital inflows have fallen significantly since April 2013.

5. THE PROSPECTS OF RENMINBI INTERNATIONALIZATION

5.1 Different Routes to Renminbi Internationalization

According to an upbeat forecast by the Bank of China, the total amount of renminbi trade settlement will reach 6.4 trillion yuan, and renminbi deposits and loans in Hong Kong, China will be 5.1 trillion yuan and 1.3 trillion yuan, respectively, in 2015. At the same time, the issuance of renminbi bonds will reach 1% of the PRC's GDP, surpassing 640 billion yuan, and renminbi FDI will account for 35% of total FDI, surpassing 500 billion yuan (Chen 2013). Whether this upbeat prediction on renminbi internationalization will come true, only time can tell.

There are three possible options to further promote renminbi internationalization. First, to continue the implementation of the original road map: renminbi import settlement–recycling mechanisms–renminbi pool in Hong Kong, China–export settlement, etc. Second, to make a major adjustment to the original road map: to provide renminbi liquidity to the rest of the world via the capital account instead of the current account. Third, to liberalize the capital account fully and let market forces have full play in realizing renminbi internationalization.

5.2 The Prospect for Use of Renminbi as a Trade Settlement Currency

The experience so far shows that exchange rate and interest rate arbitrages are two key drivers for the progress in renminbi internationalization. Since late 2011, due to the shrinkage of the PRC's current account surplus and the precariousness of capital flows, renminbi appreciation expectations have weakened significantly and the offshore–onshore renminbi market spread has become variable. In the foreseeable future, efforts in rebalancing the country's current account are likely to be intensified and the renminbi exchange rate more flexible. As a result, exchange rate arbitrage is likely to become a less important factor influencing the use of renminbi in trade settlement.[11]

However, because the PRC's trade partners are likely to continue to maintain loose monetary policy, while the PRC is likely to maintain a relatively tight monetary policy in the foreseeable future, the interest rate spread between the PRC and its major trade partners will persist. Although renminbi appreciation expectations have become less strong and the exchange rate variation larger, as long as the PRC continues to run twin surpluses and the PBOC continues to intervene in the foreign exchange market to contain the appreciation of the renminbi, the interest rate arbitrage will be not only profitable, but also basically risk-free. In recent years, especially in 2013, risk-free interest rate arbitrage by PRC enterprises has become the most important contributing factor to the increase in renminbi trade settlement

In the long run, the increase in renminbi trade settlement in the future will be decided mainly by two factors. The first is the PRC's growth. If the economy can maintain its growth momentum and stability in the future, naturally, the PRC's trade partners will be increasingly interested in using the renminbi as a settlement currency. The greatest attraction for the PRC and its trade partners to use the renminbi for trade settlement should be the reduction in transaction costs. The second factor is the dollar's future position. The weakening of the dollar certainly will increase the renminbi's appeal, which in turn will increase the chance for the renminbi to be used not only as a trade settlement currency but also as a vehicle currency.

In recent years, especially after the fourth quarter of 2011, the use of the renminbi as a trade settlement currency has shown two trends. First, the use of the renminbi for trade settlement has maintained a strong growth momentum, due to arbitrage activities as well as the PRC's steady growth.

Second, the renminbi import settlement–to–renminbi export settlement ratio has become more balanced. Experience studies show that the renminbi import settlement-

[11] For a more detailed description of exchange rate arbitrage activities since the introduction of the renminbi trade settlement scheme, see Yu (2012).

to renminbi export settlement ratio is highly correlated with the offshore–onshore renminbi market spread (Zhang and Xu 2011). When the trade settlement scheme was just introduced, the volume of renminbi import settlement was considerably larger than that of renminbi export settlement.[12] This situation changed rather dramatically in the fourth quarter of 2011. Due to capital flight from Hong Kong, China to the developed world because of the eurozone financial crisis, the offshore renminbi became cheaper than the onshore renminbi. As a result, instead of selling the renminbi for the dollar in Hong Kong, China via renminbi import settlement, PRC enterprises sold the dollar for the renminbi in Hong Kong, China via renminbi export settlement.

A more balanced renminbi settlement ratio is also related negatively with the use of the renminbi as a store of value, especially as an investment currency. Because of the narrowing exchange rate spread and the remaining restriction on using the renminbi to invest in renminbi-denominated financial assets, renminbi assets have become less attractive for nonresidents. As a result, the renminbi that had been injected into offshore markets via renminbi import settlement in the offshore market found their way back to the mainland via renminbi export settlement. This explains partially why a more balanced renminbi import settlement–to–renminbi export settlement ratio coincides with the stagnation of renminbi deposits in Hong Kong, China.

It can be expected that, in the longer run, in order to rebalance the economy, the PBOC will reduce its intervention in the foreign exchange market. The chance for the renminbi exchange rate to fluctuate in two directions will increase significantly. As a result, the arbitrage will no longer be risk-free, which in turn will reduce the use of the renminbi as settlement currency. If some day in the future, the share of renminbi settlement in the PRC's total trade settlement stops increasing or even falling, it will not be surprising at all.

With macroeconomic factors playing a less important role, the use of the renminbi for trade settlement will be decided by factors at the enterprise and industrial levels, which is a topic to which we will return later.

5.3 The Prospect for Use of Renminbi as a Store of Value

The scale of the renminbi used as a store of value—for investing in renminbi-denominated assets both within and outside the PRC—depends on the supply of renminbi onto offshore markets, which in turn is decided mainly by net injection of renminbi that flow into renminbi offshore markets via renminbi trade settlement according to the PBOC's current road map for renminbi internationalization.

Because the PRC is a trade surplus country, if both its imports and exports are all settled in renminbi, the net injection of renminbi into offshore markets has to be negative. Under this circumstance, to promote the use of renminbi as a store of value (investment currency and foreign exchange reserves) via the trade settlement channel is impossible. To inject renminbi liquidity to the rest of the world, the amount of renminbi import settlement must be larger than that of renminbi export settlement, and the difference between these two amounts equals the new liquidity, which in turn will translate into the increase in the holdings of renminbi assets by nonresidents, if demand exists. From the PRC's point of view, corresponding to the increase in its renminbi liabilities, there must be an equal increase in the PRC's foreign assets, the bulk of which would be most likely US government securities. The PRC's foreign liabilities are denominated mostly by the renminbi and its foreign assets are almost

[12] The author has discussed this issue extensively in other writings. See, for example, Yu (2012).

exclusively denominated in foreign currencies, and in the US dollar in particular. The further increase in its renminbi liabilities and dollar assets means that the currency structure of the PRC's foreign liabilities and assets has worsened further. This is a fundamental problem with the PBOC's road map for renminbi internationalization.

Furthermore, if renminbi appreciation expectations fade as a result of the PRC's rebalancing, nonresidents' desire to hold renminbi assets will fade correspondingly. In early 2011, many leading investment banks predicted that by the end of 2012, renminbi deposits in Hong Kong, China would surpass 1 trillion–2 trillion yuan. Now, well into 2013, the customer renminbi deposits in Hong Kong, China are still lingering between 600 billion yuan and 700 billion yuan.[13]

The renminbi lending and borrowing activities in offshore markets can lead to an increase in the renminbi pool via renminbi monetary multipliers in Hong Kong, China or other renminbi offshore markets. The amount of liquidity, however, is constrained ultimately by the net injection of renminbi. If the net injection to an offshore market fails to increase, which means that the "renminbi monetary base" in the offshore market is given, the scope for the renminbi pool to increase will be very limited.

Here the route of injecting renminbi via the capital account seems more promising. That is, if the PRC cannot provide renminbi liquidity by running a current account deficit, it can do so by running a capital account deficit. In fact, before 1981, the US provided dollar liquidity to the rest of the world mainly via an "official account deficit"—capital account deficit rather than current account deficit.

For a normal current account surplus country, it runs a capital account deficit. When it injects its own currency into the rest of the world by running a capital account deficit, normally, borrowers will use the currency to buy products exported by the country. As a result, not only the country's foreign assets will be denominated in its own currency, but also part of its exports will be settled in its own currency.

The PRC is a twin surplus (current account and capital account) country. To inject liquidity into the rest of the world can lead to more complicated changes in the currency structure of the country's foreign assets and liabilities. However, a very important advantage of using the capital account to inject renminbi liquidity to the rest of the world is that it will increase renminbi-denominated assets and lead to the improvement in the PRC's currency structure of assets and liabilities. At the same time, it will promote the use of the renminbi as an export settlement currency. Certainly, while using the capital account to inject renminbi liquidity, the renminbi import settlement channel can be maintained, but its impact on the currency structure of the PRC's foreign assets and liabilities should not be ignored.

The PRC can promote renminbi internationalization by lending renminbi to foreign borrowers. The Panda bonds and renminbi outbound direct investment (RODI) are good vehicles for such an endeavor. Recently, officials from the PBOC emphasized that the thrust of the PRC's capital account liberalization at the current stage is to facilitate PRC enterprises' outbound direct investment (ODI). The Ministry of Commerce is taking actions to change the rules and regulations to support ODI. The PRC can also buy more Panda bonds and make more contributions to the IMF and other keystone international organizations.

[13] Other factors may also contribute to the stagnation of renminbi deposits in Hong Kong, China. Among them is the development of other offshore centers, among others in London, Singapore, and Taipei,China. More financial instruments for renminbi investment may also be a contributing factor.

The reform of the international monetary system has been shelved for a while, but the idea is still alive and can become fashionable again. The PRC should continue the effort to promote the reform of the international monetary system by injecting renminbi-denominated funds to keystone international organizations and create conditions for making the renminbi a component of the SDR.

Certainly, this route of injecting renminbi liquidity to the rest of the world via the capital account has its own problems. First, because of path dependence, after 4 years of using import settlement to inject renminbi liquidity to offshore markets, the decision makers may be reluctant to change course, because of the cost of the change. Second, as mentioned, the PRC may not be able to continue to run a current account surplus, which is equivalent to saying that it may not be able to continue to provide net renminbi liquidity to the rest of the world via its capital account, because its ability to run a capital account deficit will be limited. Last but not least, the bulk of the PRC's ODI is destined to the Middle East and North Africa, where civil war and political conflict may erupt at any time. In short, the path of injecting renminbi into the rest of the world and encouraging foreign investors to hold more renminbi assets via the route of exporting capital is also bound to be bumpy.

The PRC's financial market is already very open to FDI and other forms of long-term credit. Long-term capital does not need to use offshore markets to evade capital controls. International capital that seeks to enter the PRC via offshore markets very likely is short-term speculative capital with the aim of profiting from interest rate and exchange rate arbitrage. Ironically, as a result of the PBOC's further opening up of the PRC's financial market to international investors, the role of offshore markets will diminish correspondingly.

The PRC can surely provide renminbi liquidity via currency swaps with other central banks. The currency swaps are useful measures for reducing the dependence on the US dollar for liquidity. These swaps are short- or medium-term bilateral liquidity arrangements, however, which will become unwound sooner or later. Currency swaps will not post a challenge to the domination of the US dollar. Despite all the virtues of the currency swaps, it is difficult to imagine how via this route the PRC can continuously supply liquidity and promote renminbi internationalization in a significant way.

An unexpected development in renminbi internationalization in recent years is the significant increase in the use of the renminbi as reserve currency by foreign central banks. This is not only a reflection of the PRC's economic strength but also a result of the weakening status of traditional reserve currencies such as the US dollar and the euro. This implies that the renminbi's expansion efforts will also be influenced by the change in the international standing of the US dollar. The more current wrangles in Washington that erode the confidence, the more scope for the renminbi to make inroads into becoming an international reserve currency.

5.4 Microeconomic Foundation for Renminbi Internationalization

According to a survey based on 782 importers and exporters in the mainland of the PRC in February 2012, the motivations of the enterprises for the use of the renminbi as a settlement currency in order of importance are reduction in foreign exchange risk, renminbi appreciation expectations, financial benefits, operational convenience, counterparty requests, and others (Brewer 2012).

According to a HSBC report (2013), "the main benefits cited by our customers are: eliminating foreign exchange risks and costs (Mainland-based party); accumulating renminbi in expectation of appreciation (exporting party); faster and simpler settlement due to the elimination of FX processes."

An important question is that if renminbi appreciations and/or interest rate spread disappear, will PRC importers continue to use renminbi to purchase dollars in Hong Kong, China and hence supply enough liquidity for renminbi offshore markets and enable the renminbi to play the role of a store of value?

A similar question can be asked about the demand for renminbi in offshore markets: If the renminbi appreciation expectations and interest rate spread between the PRC's benchmark interests and international benchmark interests disappear, will foreign investors still have strong demand for renminbi in renminbi offshore markets?

Despite all the fanfare about the acceleration of capital account liberalization, it is likely that the PRC government eventually will continue to adopt the gradualist approach to capital account liberalization. At the same time, as a result of the slowdown of the country's economy and the correction of imbalances, the use of the renminbi as an invoice and settlement currency will be decided increasingly by the specific nature of PRC firms, industrial organizations, business models, types of products traded, bargaining power of PRC firms and their counterparts, and so on. Following the gradual opening of the capital account, renminbi internationalization will continue to make progress, but perhaps at a much slower pace than people have expected.

Renminbi internationalization will no longer be driven by arbitrage. Rather, it will be decided by the behavior of enterprises. In other words, only when even without channels for recycling people are still interested in using renminbi for trade settlement, can the use of renminbi as a settlement currency be sustainable.

There are a large number of theoretical and empirical studies exploring the selection of an invoice currency (Grassman 1973; Goldberg and Tille 2008; Friberg and Wilander 2008; Kawai 1996; Ito et al. 2010). According to these studies, factors on industrial and enterprise levels, such as a country's industrial structure, corporation organizations, enterprise business models and marketing strategies, types of products available, and development of relevant financial markets, may fundamentally influence an enterprise's choice of invoice currency and hence settlement currency.[14] It should be recognized that over the past few years, although a large number of papers have been produced with regard to renminbi internationalization, few studies have been conducted on the microeconomic foundation of the use of the renminbi as an invoice and settlement currency. Hopefully, studies on this issue will come out gradually.

As for the use of the renminbi as an investment and reserve currency, instead of depending on arbitrage opportunities and offshore markets, under an open capital account, demand for renminbi-denominated assets will depend on more fundamental conditions, as Eichengreen (2013, 149) has pointed out, including "[a]n international currency that is widely used in private commercial and financial transactions and held by central banks and governments as reserves has three essential attributes: scale, stability, and liquidity."

There is no doubt that to meet these conditions are time-consuming. At the moment, the PRC's most urgent tasks are readjustment of its economic structure, rebalancing of its economy, further financial reform, and liberalization of interest rates and the exchange rate. Renminbi internationalization should be put in an appropriate place. Haste does not bring success.

[14] Recently, Ito et al. (2010) have found that for most Japanese firms, the same currency is used for both invoicing and settlement.

6. CONCLUSION

The experience since the launch of renminbi trade settlement schemes in 2009 shows that renminbi appreciation and interest rate spread are the two key drivers for the progress in renminbi internationalization. Renminbi import settlement enabled renminbi to flow into Hong Kong, China and establish a renminbi pool there because of the coexistence of two exchange rates for the renminbi. Whenever the renminbi is under appreciation pressure, liquidity flows into Hong Kong, China. Owing to appreciation expectations and the opportunities for investment in renminbi-denominated assets in the mainland of the PRC which have higher returns, renminbi deposits in Hong Kong, China and renminbi bond issuance increased very rapidly.

However, since late 2011, due to the shrinkage of the PRC's current account surplus and the precariousness of capital flows, renminbi appreciation expectations weakened dramatically. As result of a narrowing or reversing of the offshore–onshore renminbi market spread, while PRC importers became less interested in purchasing US dollars in Hong Kong, China, residents in Hong Kong, China were no longer eager to hold renminbi deposits.

Despite the disappointment in the increase in the renminbi pool and the less than satisfactory increase in renminbi bond issuance in Hong Kong, China, renminbi trade settlement has continued to increase. While the sheer size of the PRC's trade and improvements in transactional convenience by using the renminbi for settlement must be a key contributing factor, interest rate arbitrage also plays an important role. The decline in the offshore–onshore renminbi market spread contributes to the emergence of a more balanced renminbi import settlement–to–renminbi export settlement ratio.

An unexpected development in renminbi internationalization in recent years is the significant increase in the use of the renminbi as reserve currency by foreign central banks. This is not only a reflection of the PRC's economic strength but also a result of the weakening status of traditional reserve currencies such as the US dollar and the euro. This implies that renminbi expansion efforts will also be influenced by the change in the preference for the US dollar.

A fundamental constraint for renminbi internationalization is the PRC's capital controls. The question facing the PRC government at the moment is whether it should abandon the remaining controls over short-run cross-border capital flows. It seems that the PBOC has lost patience with the slow progress in domestic reforms, and hence is pushing for the big-bang approach in capital account liberalization to force though much needed internal changes. Certainly, other things being equal, capital account liberalization will give an extra boost to renminbi internationalization.

However, in my view, before fully opening its capital account and making the renminbi freely convertible, the PRC should first put its own house in order. For example, macroeconomic stability has to be achieved, the high leverage ratio should be reduced, a rational and flexible interest rate structure must be created, risk management capacity across industries should be established, and intervention in the foreign exchange market minimized. All of this takes time. Without completing these tasks first, hasty capital account liberalization could lead to dire consequences.

I would postulate that due to the high risks involved, the PRC government eventually will maintain a gradualist approach with regard to capital account liberalization. Hence, renminbi internationalization will continue to enjoy steady progress, but there will be no sensational developments. After the capital account has been fully liberalized and renminbi dynamics are no longer driven by arbitrage, besides the continuous expansion of the economy, the progress of renminbi internationalization will depend increasingly on the specific nature of PRC firms, industrial organizations, business models, types of products traded, and bargaining power of PRC firms and their counterparts. There is no doubt whatsoever that the renminbi will become a major international currency, but the internationalization journey is a long one. The PRC is only just at the beginning.

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