

Chen, Xiaoli; Cheung, Yin-Wong

Working Paper

Renminbi going global

Working Paper, No. 677

Provided in Cooperation with:

University of California Santa Cruz, Economics Department

Suggested Citation: Chen, Xiaoli; Cheung, Yin-Wong (2011) : Renminbi going global, Working Paper, No. 677, University of California, Economics Department, Santa Cruz, CA

This Version is available at:

<https://hdl.handle.net/10419/64541>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Renminbi Going Global*

Xiaoli Chen

Shandong University, Jinan, China

Yin-Wong Cheung

University of California, Santa Cruz, USA

This Version: February 2011

ABSTRACT

The paper assesses the international status of the Chinese currency renminbi (RMB) by recounting and reviewing the recent policies China instituted to promote the use of the RMB in the global market. The evidence suggests that the RMB is gaining acceptance overseas. However, compared with the size of the Chinese economy, the current scale of the use of the RMB is quite small. The path to a fully fledged international RMB will be a distant goal.

JEL Classification: F02, F31, F33

Key words: RMB Internationalization, Off-Shore RMB Market, Cross-Border Trade Settlement, Panda Bonds

We thank Jakob de Haan, Haihong Gao, Risto Herrala, Iikka Korhonen, Bob McCauley, Andy Rose, and participants of “The Fourth Annual Methods in International Finance Network Workshop” for their comments and suggestions on an earlier version of the paper.

Xiaoli Chen, professor, Shandong University, Jinan, China. Email: xiaolichen@sdu.edu.cn; Yin-Wong Cheung, professor, University of California, Santa Cruz, USA. Email: cheung@ucsc.edu.

1. Introduction

Soon after its accession to the World Trade Organization in December 2001, China has established itself as a major hub of the world production chain, as the second largest trading country, and as a substantial net external creditor. At the same time, China is increasingly integrated with the world economy. The integration, however, is mainly taken place via the international trade channel and not in the financial area. Indeed, China has some strict capital controls and its financial system is quite isolated. Even in the absence of strong financial linkages, the integration of China's trade into the global system has altered the world economic landscape significantly. What will be the implications for the global economy when China opens up its financial markets?

China's impressive strides in economic growth make its financial system reform an imminent and critical issue. China has repeatedly affirmed that liberalizing its capital accounts is its ongoing official policy. The liberalization process is carried out in a gradual and guarded manner such that it is not disruptive to economic development. The general sequencing policy appears to be strengthening domestic financial institutions, opening capital accounts, and managing the currency. In practice, China has adopted its typical gradualism approach in implementing its financial market reforms. For instance, while there were some changes in its exchange rate policy in the last few years, China has in general instituted a stable foreign exchange policy by maintaining substantial controls on its currency renminbi (RMB) and restricting the use of the RMB overseas. For some people, it is not that nothing has been done, but that the policy changes are just too small and too slow.

In 2004, China started its experiment with convertibility and financial liberalization by establishing an offshore RMB market in Hong Kong. Since then, the offshore market has been growing steadily. The acute US dollar shortage effect on trade experienced in the recent global financial crisis has triggered some Chinese responses. Soon after the governor of the People's Bank of China commented on the super-sovereign reserve currency and implicitly challenged the dominance of the US dollar in the global economy in the midst of the recent global financial crisis (Zhou, 2009), China has initiated the scheme to settle cross-border trade in RMB. By June 2010, RMB could be used to settle trade with all countries.

The RMB trade settlement policy is perceived to complement the bilateral currency swap agreements China signed with other economies since 2008. These swap agreements allow other economies to offer local importers RMB trade financing to buy Chinese goods. Both policy measures offer a buffer against the trade contraction effect of dollar shortage and help stabilize China's export sector.

Witnessing the profound effects of integrating China's exports and imports, the world is anxiously awaiting China's financial market transformation. Undoubtedly, the integration of China's financial markets represents both challenges and opportunities to the rest of the world. China's recent policies of developing the offshore market and promoting the use of RMB in trade settlement have not gone unnoticed. Analysts and commentators are scrambled to assess China's underlying intention and the implications of an international or global Chinese currency.

Even though most of these Chinese policies were introduced in the last few years and academic study on the topic is scant, there is no shortage of discussions from the media, investment community, and policy circles. Most discussions acknowledge the RMB's potential and, at the same time, point out obstacles including the lack of convertibility and capital controls that deter its acceptance in the global market. Some are more optimistic than others and predict that the Chinese currency RMB could challenge the US dollar and become an alternative reserve currency in a not so distant future.¹

In this paper, we focus on the international status of the RMB, which is an important aspect of China's role in the global financial market. To what extent the RMB is an international currency? We will recount and assess the recent efforts of promoting the use of RMB in trade financing and in the global financial market. In the next section, we describe a few concepts on the international uses of a currency. Section 3 assesses the roles of the RMB in terms of the different functionalities of a global currency. Section 4 discusses some policies China implemented in the recent years. The final session offers some thoughts and comments on the prospect of the RMB to become an international currency.

¹ See, for example, Chen and Peng (2007), Cheung *et al.* (2011), Cui *et al.* (2009), Deloitte China Research and Insight Centre (2009), Dobson and Masson (2009), Eichengreen (2005), Hu (2008), Huang (2010), Jaeger (2010), Lee (2010), McCauley (2011), Murphy and Yuan (2009), Stier *et al.* (2010), Strategy, Policy and Review Department, IMF (2010), and Wu *et al.* (2010).

2. International Currency

2.1 Some Concepts

The basic functions of money are medium of exchange, unit of account, and store of value and purchasing power. These functions are inter-related. In the global economy, currencies are not only used in the countries in which they are issued. However, not all domestic currencies perform these functions to the same extent in the world market. The desirability and acceptability of a currency in both the issuing country and the rest of the world depend on the perceived stability of the currency's value and the public's trust of the issuer's credibility.

Literally, an international currency is a currency that is used internationally – within and outside its issuing country. It is, however, quite an imprecise description. Most currencies could to some extent be used outside their own countries under certain circumstances. Alternatively, an international currency is referred to as a currency that is willingly, readily, and commonly used to conduct international transactions.

The international roles of a currency are closely related to the three basic functions of money. For instance, the public and private functions including the uses of the currency to intervene in foreign exchange markets, to peg a local currency, to hold international reserves, to transact international trade and investment, to invoice international transactions, and to store private wealth (Cohen, 1971; Chinn and Frankel, 2005; Genberg, 2009; Kenan, 1983; Krugman, 1984). Some globally traded commodities, including gold and oil, are conventionally denominated in a prominent international currency such as the US dollar.

If we assign the degree of internationalization on a continuous scale of 0 to 1, with “0” means a non-international currency and “1” a perfectly full-fledged international currency, most currencies will fall within the 0-1 continuum. For instance, the US dollar is closer to “1” than, say, the Japanese yen, which in turn is more international than the HK dollar and the RMB.

There are a few terminologies describing different facets of the functionality of an international currency. A substantial amount of international trade transactions is conducted using a vehicle currency, which is a currency not issued by the trading partners themselves. Typically, the vehicle currency plays the combined roles of invoicing (denominating) currency and settlement currency. Note that invoicing currency and settlement currency could be a

currency of one of the trading countries and not that of a third country. Arguably, the US dollar is the most commonly used vehicle currency.

International reserves offer central banks the ammunition to defend their currencies and fend off speculative attacks. An international reserve currency is one that is held by governments as part of their international reserves. Since World War II and the Bretton Woods system, the US dollar has been a staple of many countries' international reserve holdings. Currently, the euro is another main international reserve currency.

The term "international cash currency" focuses on the use of a currency in its physical form outside its issuing country. A dollarized country such as Panama is an extreme case in which the US dollar banknotes are used as the country's official currency. Indeed, it is estimated that over 60% of US banknotes are being held abroad (US Treasury Department, 2006). In the case of the euro, it is estimated that around 14% of the currency in circulation are in use outside the euro area (European Central Bank, 2010). In countries with unstable economic and political conditions, the US dollar and the euro offer a relatively stable and reliable store of value. Besides facilitating normal economic transactions, it is believed that the US dollar and euro banknotes are held to finance criminal and underground activities.

Another international use of a currency is to serve as a safe haven currency. During a crisis or turmoil period, people are inclined to hold a currency that is perceived to be liquid and widely accepted. For instance, during the recent global financial crisis, we observed a drastic increase in the demand for the US dollar.

2.2 *International Currencies – A Brief Recent History*

The global roles of a currency evolve over time. The current international financial system has an informal multipolar arrangement that has the US dollar being the dominant international currency and the euro, Japanese yen, and British pound the minor international currencies.

The prominent international status of the US dollar has its root in the early 20th century. After World War II, the world was moving away from the gold standard. The growing US economic, military, and political influences gradually propelled the US dollar to the global center-stage. The fate of the US dollar to replace the British pound as the international currency

was sealed with the Bretton Woods arrangement, which effectively assigned the dollar the role of a reserve currency.² Since then, the growing international trade in US dollar and the enhancing depth and breadth of the US financial markets have cemented the supremacy of the US dollar. Despite being replaced by the US dollar as the most prominent international currency, the British pound is still quite an internationalized currency.

The international role of the US dollar was challenged a few times in the last few decades. In the 1970s, the dollar confidence crisis accompanying the collapse of the Bretton Woods system offered other countries an opportunity to project their currencies into the global monetary architecture. Benefiting from the increasing strength of the German economy, the German mark became a viable alternative to the US dollar (Tavlas, 1991). Steadily, the German mark established its position as the second most popular international currency after the US dollar – until it was replaced by the euro in 1999.

When Japan recovered from the war and asserted its economic influences, it began its efforts to internationalize its currency in the 1980s. In essence, Japan's policies were to reduce capital controls and promote the use of the yen in international trade and financial transactions. The policy push was essentially terminated in the early 21st century (Ministry of Finance, Japan, 2003; Takagi, 2011). While some observers doubt the effectiveness of the internationalization effects, the Japanese yen is arguably the number three international currency.

The introduction of the common currency, euro, for European Union countries is a historical international finance event. Among other things, it creates an economic entity that could meaningfully challenge the US economy. Soon after its introduction, ample discussions took place on the (potential) international role of euro and the possibility that it will over-take the US dollar as the prominent international currency.³ At one point, the euro is a promising contender that could dethrone the US dollar; especially when the US experiences anemic economic performance and incurs huge deficits.

² Before the global dominance of the British pound, the Dutch guilder was widely used in the 17th and 18th centuries for international transactions. Eichengreen (2005), however, noted that the Dutch currency then was mainly an invoicing currency and not a reserve currency.

³ See, for example, Chinn and Frankel (2005). The latest results from the annual review of the international role of the euro were reported in European Central Bank (2010).

The unexpected surge in the demand for the US dollar in the midst of the 2008-9 global financial crisis forces the world as a whole to re-assess the balance of different currencies in the international monetary architecture (United Nations, 2009). The episode essentially asserts the unrivaled international role of the US dollar in the current international monetary system. With the subsequent sovereign crises among the European Union member countries, the idea of replacing the US dollar with the euro as the lead international currency becomes quite far-fetched.

What are the determinants or what are the defining characteristics of an international currency? Some studies focus on the determinants of a reserve currency while others are on the choice of an invoicing currency (Chinn and Frankel, 2005; Goldberg and Tille, 2008). In general, it is perceived that the international role of a currency depends on following attributes of its issuing country: a) the size of the economy and the trade sector, b) the size of the financial market, c) capital account openness, and d) the stability of the economic and political conditions. These attributes are necessary, but not sufficient conditions for an international currency. Some non-economic factors could affect the currency choice for certain international transactions. For instance, the choice of a vehicle currency has displayed some inertia and is affected by political factors.

3. International Functionalities of the RMB

Technically speaking, the Special Drawing Right (SDR) created by the IMF in 1969 is only a quasi-currency and not a currency. While the SDR serves as a reserve asset and a unit of account, its value depends on a basket of currencies and the basket composition is reviewed every five years by the IMF Executive Board. The inclusion in the SDR basket is an official recognition of a currency's role in the international economy.

In the latest November 2010 review, the IMF Executive Board determined that the basket comprises four currencies; namely, the U.S. dollar, euro, pound sterling, and Japanese yen and their weights are, respectively, 41.9, 37.4, 11.3, and 9.4.⁴ These currencies are selected based on

⁴ In the previous review, the basket included the same four currencies with weights 44, 34, 11, and 11.

the size of the exports sector and whether the currency is freely usable, meaning that it is in fact widely used and traded in the global market (International Monetary Fund, 2010).

China is the second largest trading country behind the US with 2.2 trillion of imports and exports in 2009.⁵ Thus, the obvious reason for RMB not being included in the latest SDR basket is not the trade criterion but the currency usability criterion. Currently, there is only a meager amount of international transactions conducted via RMB. Until China has achieved substantial progress in making its currency “freely usable,” RMB has a very small chance to be a SDR component currency. Further, the weight in the SDR basket depends on the value of the exports sector and the amount of the currency being held as international reserves by other IMF members. At the time of writing, the international reserve role of RMB is virtually non-existent.

Nevertheless, there are discussions that the RMB should be (or soon) will be included in the SDR basket. For instance, Guo Shuqing, chairman of China Construction Bank Corporation said that the IMF should “immediately” include the RMB as a component of its Special Drawing Rights basket of currencies (McMahon, 2010). French President Nicolas Sarkozy was quoted that he would ask the IMF to study to possibility of including the RMB in the SDR basket (Gauthier-Villars, 2011).

3.1 Global Foreign Exchange Market

Let us consider the global foreign exchange market. According to the Bank for International Settlements (2010) triennial central bank survey, the Chinese currency is among the emerging market currencies that experienced significant increases in their trading volumes. Its share of global foreign exchange trading increased to 0.9% in 2010 from 0.5% in 2007 and 0.1% in 2004. Note that because two currencies are involved in each foreign exchange transaction, the sum of the percentage shares of individual currencies totals 200% instead of 100%. The average daily turnover surged from 1.7 billion in the 2004 survey and 14.6 billion in the 2007 survey to reach 29.2 billion in the 2010 survey.

While its growth is quite respectable, the RMB trading turnover is quite small compared with the size of the Chinese economy. For instance, the US dollar, euro, Japanese yen, and British pound account for, respectively, 84.9%, 39.1%, 19.0% and 12.9% of the global foreign

⁵ Base on the World Development Indicators database.

exchange trading turnover in the 2010 survey. The Hong Kong dollar – the currency of China’s special administrative region – accounts for 2.4% of the global turnover.

Further, the RMB turnover volume is relatively small compared with its import and export activities. For instance, when the size of the 2009 trade sector is used to normalize the currency trading volume, the annualized foreign exchange turnover to international trade (exports plus imports) ratios are 3.0 for the RMB, 30.9 for the Hong Kong dollar, and 270.0 for the US dollar.⁶ Taking its huge trade sector into consideration, China still has a long way to go in promoting the use of the RMB in the global economy. Despite the rapid turnover growth in the last few years, the use of RMB in the global foreign exchange market is still quite limited.

3.2 *Invoicing/Settlement Currency*

A common indicator of the international role of a currency is the extent to which it is used as an invoicing currency. Even though detailed information on invoicing behaviour is scarce, anecdotal evidence and some recent studies on trade invoicing suggest that the US dollar is the most widely used invoicing currency, followed by the euro, and the Japanese yen (Goldberg and Tille, 2008; European Central Bank, 2010; and Ito, *et al.*, 2010). The widespread use of these currencies in invoicing trade is seen as a backstop of their leading transaction roles in the global foreign exchange market.

The Chinese currency has been used in international trade, albeit in a limited manner, for a long time. In 2003, China’s State Administration of Foreign Exchange formalized the procedure and issued rules for domestic institutions on the use of the RMB as the invoicing currency in signing imports and exports contracts.⁷ At that time, RMB is mainly used in trade taking place near the border areas with neighbouring countries such as Cambodia, Mongolia, Russia, and Vietnam. Unfortunately, we do not have data on the volume of trade invoiced in RMB. As an alternative, we consider China’s recent policy on trade settlement.

⁶ The total amounts of goods imports and exports in billions of US dollar are 2,158 (China), 670.5 (Hong Kong), and 2,649.4 (US). A factor of 225 was used to obtain the annualized turnover data. The 2009 data (from the World Development Indicators database) were the latest annual trade data available at the time of writing.

⁷ State Administration of Foreign Exchange (2003).

In April 2009, China's State Council approved a pilot scheme for cross-border trade settlement in RMB. The scheme initially involved Shanghai and four other Chinese cities in Guangdong Province, on the one hand, and Hong Kong on the other. Since the implementation of the scheme in July the same year, the RMB trade settlement activity has steadily progressed. The scheme got a substantial boost in June 2010 when the program eligibility was expanded to cover twenty of the 31 mainland Chinese provinces and to companies that are domiciled in and outside Hong Kong. The expansion of geographic coverage was followed by a discernable increase in the volume of cross-border trade settled in RMB.

The cumulative volume of trade settled in RMB has increased from less than RMB 4 billion at the end of 2009, to almost RMB 45 billion by May 2010, and RMB 290 billion by November 2010. Nonetheless, the values of RMB trade settlement in November and in the first eleven months of 2010 are less than 2% of China's total trade in the two corresponding periods.⁸ The percentage is far less than the prediction that one-third of China's exports could be invoiced in the RMB (Chen *et al.*, 2009). Of course, whether the one-third stipulation is achievable or not depends on economic and political developments in both China and the global economy.

The RMB trade settlement scheme is complementary to the bilateral currency swap agreements China arranged with other economies in the midst of the recent global financial crisis. These swaps were first seen as policy measures introduced to alleviate the trade contraction effect of dollar shortage experienced during the crisis.

So far, China has signed bilateral currency swap agreements with eight economies; namely Argentina, Hong Kong, Iceland, Indonesia, Korea, Malaysia, Russia, and Singapore that have a combined value of more than RMB 800 billion (Table 1). These arrangements have a three-year duration and are renewable. They allow the economies to offer RMB trade financing to the local importers to buy Chinese goods. Indeed, when its quota on RMB trade settlement was exhausted in October 2010, the Hong Kong Monetary Authority activated the swap line facility. In passing, it is noted that under the Chiang Mai Initiative, China also has signed bilateral swap arrangements with some Asian countries.

⁸ China's imports and exports totaled US\$283.76 billion in November and US\$2677.28 billion from January to November of 2010.

3.3 *The Offshore RMB Market in HK*

Hong Kong is a special administrative region of China. Under the stipulation of “The Basic Law of the Hong Kong Special Administrative Region,” which essentially is a mini-constitution, Hong Kong is allowed to maintain its own legal and financial systems. Specifically, Hong Kong has its own currency, the Hong Kong dollar, and imposes no capital controls. Given its unique economic and political history, Hong Kong is chosen to be a testing ground for assessing the impact of RMB convertibility and capital account liberalization. While China has sovereignty over Hong Kong, it considers Hong Kong as an offshore market in terms of currency trading.⁹ Indeed, China has instituted specific rules and procedures on RMB transactions between China and Hong Kong.

The drastic increase of RMB trade settlement in the second half of 2010 is associated with a change in China’s policy on the experimental offshore RMB market in Hong Kong. Specifically, on July 19, the Chinese central bank signed with Hong Kong the “Memorandum of Cooperation on Renminbi Business,” which substantially expands Hong Kong’s capacity to conduct RMB transactions outside China.

The role of Hong Kong as a laboratory for offshore RMB transactions started in 2004. It began with an arrangement that allows Hong Kong to develop an offshore RMB deposit market. Some specific measures are a) individuals are allowed to convert up to RMB 20,000 daily in Hong Kong, and b) selected industries are allowed to conduct selected corresponding services.

A milestone of the offshore market experiment is the issuance of the so-called “Dim Sum” bonds – bonds denominated in RMB and issued in Hong Kong - in 2007. The first “Dim Sum” bond was issued by the China Development Bank, a policy bank under the direct jurisdiction of China’s State Council in July 2007. Hopewell Highway Infrastructure Ltd. was the first non-financial company issuing Dim Sum bond. There are 24 issuances as of January 2011 with a total of more than RMB 60 billion (Table 2).

One half of the 24 issues were sold by China’s policy banks (China Development Bank and Export-Import Bank of China) and stated-own banks (Bank of China and China Construction Bank). China’s Ministry of Finance offered the two largest issuances. The second sovereign

⁹ Market practitioners coined the RMB traded in Hong Kong as CNH instead of the usual trading symbol CNY.

RMB-bond issued by the Ministry of Finance in November 2010 is interpreted as an attempt to set up the yield curve for the offshore RMB bond market. The two notable foreign issuers are the US blue chip companies MacDonald's and Caterpillar. The most recent Dim Sum bond sale was offered by the World Bank in January, 2011.

The Memorandum signed in July 2010 is another milestone. It literally allows a rich menu of RMB trading activities – including spot and forward RMB trading – in Hong Kong. By the end of 2010, the daily trading in spot RMB has grown from almost nothing to an estimated average volume of \$400 million. The Memorandum also makes it possible for financial institutions to offer deliverable forwards, in addition to non-deliverable forwards that are already traded in the market. Banks are planning to develop RMB-linked structural products.

The market consensus is that China will stay the course of experimenting with the offshore RMB market and the nascent RMB market in Hong Kong will gain traction and grow substantially in the near future. The official stance, on the other hand, appears cautious. For instance, there is a concern that market-making, and not trade settlement related activity is the main driver behind most of the spot trading. Six months after signing the Memorandum, the Hong Kong Monetary Authority (2010) – the *de facto* central bank in Hong Kong, issued guidelines regulating RMB trading to Hong Kong institutions that are authorized to engage in RMB businesses. These guidelines are meant to rein in RMB trading and make the trading connected to import and export, rather than speculative, activities.

With these recent developments and growing opportunities in the offshore market, RMB deposits in HK gained momentum and surged strongly in 2010, especially in the second half of the year. The total amount of RMB deposits in Hong Kong at the end of November 2010 reached RMB 279.6 billion, which is RMB 189.9 billion and RMB 216.9 billion higher than the amount at, respectively, the end of June 2010 and the end of 2009.¹⁰ The number of authorized institutions engaged in RMB business is 105 as of November 2010, representing an increase of 73 (228%) from February 2004.

While the RMB deposits represent about 5% of the total deposits as of November 2010, their growth is quite stunning. The increase is around 450% in a year. If the trend continues,

¹⁰ The total RMB deposit in Hong Kong is less than one percent of China's (non-corporation) saving deposit, which is at the level of RMB 29.8 trillion as of November 2010.

RMB will soon replace the US dollar – which accounts for 30.8% of the total deposits in Hong Kong as of November 2010 – and become the most popular foreign currency in the HK market.

The experiment with the Hong Kong offshore market is expected to evolve in several directions. For instance, it is expected that, in 2011, the Chinese Gold & Silver Exchange in Hong Kong, which is a century-old bullion exchange, will launch the first international gold contract denominated in the RMB. Also, the Hong Kong Exchanges & Clearing Ltd. is preparing for the issuance of stocks denominated in RMB instead of the Hong Kong dollar. The first RMB denominated initial public offering is expected to be from a real-estate investment trust backed by a major property in Beijing. Of course, the launch of these new RMB denominated financial products will promote the use of the RMB. However, it is not sure whether and when these offerings will be approved Chinese regulators.

3.4 Other Functionalities

The other functions of an international currency include an international cash currency, a reserve asset, an anchoring currency in a pegged exchange arrangement, and a denominating currency for globally traded commodities. Not surprisingly, RMB plays quite a minor role in these capacities. Specifically, we are not aware of the use of RMB as an anchoring currency or as a denominating currency for commodities in the international market.

China has strict rules on RMB movements in and out of the country. It is hard to get statistics on the amount of RMB banknotes circulating outside China. The RMB is not a legal tender in Hong Kong and Macau, the two special administrative regions of China. They have their own legal tenders; namely Hong Kong dollar and Macanese pataca. However, the Chinese currency is accepted in some retails business.

Anecdotal evidence suggests that the Chinese currency is used in bordering countries including Russia, Mongolia, Kazakhstan, Kyrgyzstan, Tajikistan, and Vietnam. The RMB strengthen and the growing trade ties with these countries in the first decade of the 21st century are driving the foreign accumulation of RMB banknotes. Accordingly to a 2007 State Administration of Foreign Exchange study, it is estimated that there are RMB 1.4 billion and RMB 1.8 billion circulating in Mongolia and Vietnam. The official amount of RMB in

circulation is 4,225.2 billion as of November 2010. Our estimate is that, even allows for holdings in other economies, the RMB currency outside China is less than two percent.

At the time of writing, we are only aware of the September 2010 news report that Malaysia's central bank bought RMB-denominated bonds for its reserves (Brown *et al.*, 2009). There is unconfirmed speculation that other Asian central banks did the same around that time. Nevertheless, we do not have information on the amount purchased and on the identity of other central banks that added the RMB to their reserve holdings.

Although the current level is low, some studies have conducted analyses and predicted that, in the next 10 to 15 years, the RMB could account for 3% to 20% of global international reserves (Chen and Peng, 2007; Hu, 2008; Lee, 2010). The wide range of predictions, of course, reflects the sensitivity of the analysis to assumptions and methods used in these studies.

4. China's Initiatives

China has launched one of the world's largest, if not the largest, economic experiments since the 1980s. The task of transforming a communist central planning economy to a market-driven one is quite unprecedented. Reform policies and programs are contemplated and designed following the so-called "feel the rock, wade across the river" gradualism approach. The policies are typically implemented in small and incremental steps to guard against major surprises. The resulting economic achievement is quite admirable. China's gross domestic product (GDP, in current US\$) was 4,985.5 billions at 2009 compared with 189.4 billions at 1980. It represents an average growth rate of 11.5% in the last 30 years. The GDP *per capita* (in current US\$) increases from the level of 193 in 1980 to 3,744 in 2009.

The economic accomplishment, however, is not without critics. For instance, some consider the growth is uneven and relies too much on exports. The country is rich with US\$2.847 trillion foreign exchange reserves, which account for almost 30% of the world's total - at the end of 2010, while the Chinese are relatively poor as China's GDP *per capita* ranks only the 95th according to IMF. China's trade sector has grown significantly in the last three decades and now is the second largest trading country in the world. The volume of trade (imports plus exports) in 2009 was US\$2,158 billion, which is much larger than US\$ 38 billion in 1982. The growth rate

is much faster than the world average. The financial sector on the other hand is still quite underdeveloped.

In the last ten years or so, China has stepped up its efforts to reform and upgrade its financial sector. Measures and initiatives were rolled out to develop its domestic financial markets and establish the offshore RMB markets. These efforts help modernize the economy and complement the solid economic growth experienced in the last three decades. They also steer a path for capital account liberalization and currency convertibility.

In response to the fallout of the recent financial crisis, especially the global liquidity contraction, China has launched a number of initiatives to reduce its reliance on the US dollar and promote the use of RMB in conducting international transactions. Some commentators interpreted these initiatives as signs that China is pushing RMB to the international arena to challenge the US dollar supremacy. If it is the case, then these initiatives have not yet delivered any substantial material effects. As recounted in the previous section, the international status of the RMB is still quite low.

4.1 *Offshore Markets and Uses outside China*

On developing the offshore RMB market, China has followed a measured strategy and used Hong Kong as a testing ground since 2004. A well-formulated offshore market helps to assess the implications of intermediating international transactions in the RMB without giving up capital controls outright (He and McCauley, 2010). Since Hong Kong is a special administrative region of China, China could dictate both the growth rate and the evolution of the offshore market via necessary legislation. The push of the RMB abroad is analogous to the 2002 “going global” policy that promotes China’s overseas direct investment activity.¹¹ In both cases, the policies would sustain the domestic economic reform process and promote global champions.

The offshore market experiment started mainly with a RMB retail deposit market, followed by institutional bond issuance, RMB trade settlement, and RMB (spot and forward) trading. The bond issuance so far is dominated by official or semi-official Chinese institutions including the Ministry of Finance, Bank of China, and China Development Bank. The issuance by foreign entities

¹¹ The 2002 issue of *the Almanac of China’s Foreign Economic Relations and Trade*, published by The Editorial Board of the Almanac of China's Foreign Economic Relations and Trade, discusses the effort to implement vigorously the ‘going global’ policy.

is obviously constrained by rules on the use of the proceeds back in China. The working of the nascent RMB trading is also under considerable scrutiny while the business sector is progressively prepared for RMB-related derivatives and structured products.

The RMB market in HK has experienced some phenomenal growth in the last few years. Its actual size, however, is quite small compared with the Chinese economy. By all means, the offshore market has great potential and has substantial implications for the RMB's role of in the international market. However, its future path and shape depend crucially on China's policies including those on convertibility and capital controls. It is expected that China would like to see a slow and steady growth rather than a fast one that may get out of its control and jeopardize its ability to manage the economy.

Six months after opening the RMB to trading in Hong Kong, China launched trading in its currency in the US in January 2011 (Wei, 2011). The scope of trading is restricted – the purchase of RMB for a US individual customer is limited to the equivalent of \$4,000 a day. However, there is no limit on converting RMB back into dollars. There are also no conversion limits on businesses that are engaged in international trading. Even though currency convertibility may not happen in the near future, the move is a clear indication that China is preparing for it.

One observation is that, historically, offshore markets such as the euro-dollar market were sprung from and evolved according to market forces. China's policy driven approach to nurture an offshore market is quite an experiment by itself.

Besides the offshore market experiment, the RMB trade settlement scheme, and the bilateral swap arrangements, there are other means through which China promotes the use of RMB. One interesting instance is that, in September 2009, China agreed to purchase up to 32 billion SDR-denominated notes from the IMF and pay for it with RMB (People's Bank of China and International Monetary Fund, 2009).

The transaction has the dual effect of denominating its official claims on the rest of the world in RMB and diversifying into the SDR component currencies; the US dollar, the euro, yen, and sterling pound. Even though it is symbolic, the actual implication for the international use of RMB could be limited. Cheung *et al.* (2011) labeled the strategy of denominating China's claims on the rest of the world in RMB the "renminbisation" of China's foreign assets. It also illustrated why the use of the RMB in the SDR bond transaction could be quite ephemeral.

In early January 2011, the news that the city of Wenzhou launched a trial initiative that allows its residents to invest directly overseas was viewed as China's pilot program to reduce its control on RMB and to explore the implications of offshore investment (Wenzhou Foreign Trade and Economic Cooperation Bureau, 2011). In essence, the initiative permits an individual Wenzhou investor to invest up to a maximum of US\$3 million in a single project overseas and the initiative's annual total investment limit is US\$200 million. Apparently, it maintains the usual China's policy signature – the liberalization process is carried out with small and guarded steps. Nevertheless, in less than half a month, it was reported that the State Administration of Foreign Exchange did not approve the initiative.

From the perspective of the currency composition of international assets and liabilities, Cheung *et al.* (2011) noted that one way for China to promote the use of its currency is to denominate its expanded official aid programs in Asia, Africa and Latin America in the RMB. Such a policy offers considerable scope to create RMB uses around the world.

4.2 *Panda Bonds*

In the last few years, international organizations participated in the process of developing the RMB bond market via issuing panda bonds, which are RMB denominated bonds issued by foreign institutions in China. So far the International Finance Corporation and Asian Development Bank are the two international institutions that have sold Panda bonds (Table 3). These institutions simultaneously issued Panda bonds in October 2005 and, then, individually offered another round of Panda bonds in 2006 and 2009. In May 2010, the Bank of Tokyo-Mitsubishi UFJ (China) Ltd. became the first foreign commercial bank to sell Panda bonds via its subsidiary in China. By the end of December 2010, there are five different Panda bond issues.

Compared with advanced countries, China's domestic bond market, especially the corporate bond sector, is relatively shallow. The Panda bond issuance helps widen the bond market, enrich the financing structure, and enhance opportunities for investing in RMB denominated bonds. In the beginning, proceeds from bond issuance are required to be used to finance projects in China and are not allowed to be converted into foreign currencies and transferred overseas.

The rule was changed in September 2010 (People's Bank of China, the Ministry of Finance, the National Development and Reform Commission, and the China Securities Regulatory Commission, 2010). Since then, international institutions, upon the approval of the State Administration of Foreign Exchange, could remit overseas their proceeds from Panda bond sales either in RMB or foreign currencies. The policy change is another step to experiment with liberalizing the capital account and international use of RMB.

China has pursued a two-track approach to promote the use of its currency by strengthening its domestic financial markets and developing the offshore RMB market. To enhance acceptance of the RMB abroad, China appears to focus its efforts in Greater China; especial Hong Kong and nearby trading partners. It is conceivable that China is pushing RMB schematically to Greater China, then to Asia, and then to the rest of the world.

5. Concluding Remarks

Historically, the recurrence of crises gives China a good excuse, if not a reason, to maintain its grip on financial markets and capital mobility. The response to the 2008-9 global financial crisis was different. When the crisis exposed the cataclysmic effect of building the international monetary system around a single national currency, China advocated the adoption of a super-sovereign currency and introduced a few policy responses to alleviate its dependence on the US dollar. In the process, China has assigned its currency RMB a more active role in the global market. These policy actions have generated discussions on China's intention to make RMB an international currency and challenge the US dollar international prominence.

The 2008-9 global financial crisis revealed the defect of the current international monetary architecture and triggered reform discussions. An international currency country typically starts with a strong current account position and as a net global creditor. Its international status is eroded with deteriorations in its economic strength. China as a major country – in terms of its size, its trading activity, and its global creditor status - assumes a relatively minor role in the global financial system.

For some observers, the potential role of the RMB becomes apparent when the US dollar is called to play a less prominent role, the European debt crisis is revealed, and the Japanese economy has been in stagnation for over a decade. An International Monetary Fund study, for

example, named the RMB as one of the three national-currency contenders that could challenge the US dollar's status (Strategy, Policy and Review Department, IMF, 2010). The other two currencies are the euro and the Japanese yen.

The obvious question is, then, whether the Chinese policy measures that rolled out and inched forward the use of RMB in the last few years have any material impact on internationalizing the currency.

Our recounting of the international status of RMB and China's related policies is far from exhaustive. The message, however, is quite clear. Despite the strong momentum displayed in the last few years, the scale of RMB uses in the global market is quite small compared with the size of the Chinese economy. It is conceivable that a hasten projection of the RMB into the global economy could carry substantial costs for China. Specifically, with its underdeveloped financial markets, a pre-matured internationalization of the RMB could weaken China's ability to manage its currency and monetary policy – which in turn could pose a serious risk of destabilizing China's domestic economy. Under the usual premise of gradualism, it is reasonable to conjecture that, to avoid unexpected interruptions to its economy, China is willing to pursue a slow and steady path to promote and enhance the RMB's acceptance overseas.

Our view is not driven by rigorous statistical analyses. Not that we underplay the role of statistical analysis. Rather, for a transitional country like China with its economy in a state of flux, empirical inferences based on experiences of developed countries may not be definitive. The typical empirical determinants of the level of currency internationalization are the country size, exchange rate variability, the size of the trade sector, and the size of the financial (foreign exchange) market. With the exception of a deep and well functioning financial sector, China fares quite well on three of the four factors.

What missing in a typical empirical exercise, however, are the political and military considerations. For instance, anecdotal evidence indicates that the ascendant of a national currency's international dominance is closely associated with the nation's global political prowess and military strength, in addition to its economic power. Recent examples include the British pound and the US dollar.

Indeed, it is not sure whether the measures introduced in the last few years are motivated by economic pragmatism in the midst of dollar shortage, are parts of the ongoing modernizing

process, or are for developing the international supremacy of RMB. May be, these policies are meant to prepare for the use of RMB in the global market rather than to push it to become an international currency.

Even if it is China's intention to compete with the US dollar for the supremacy in the international monetary structure, the road for the RMB to be a full-fledged international currency could be long and winding – it depends on China's own policy initiatives and the responses of other (international currency) countries. Even though an offshore market can help to intermediate international (trade and financial) transactions in the RMB and, thus, promote its acceptance, it does not deny the relevance of a deep and efficient financial sector with prudent governance for an internationalized RMB.

It takes time to put in place the hardware and, more importantly, the software that are required to establish and maintain a well functioning financial sector and the related regulatory framework. The experience of the developed world, especially in light of the weakness of the western financial market revealed in the 2008-9 crisis, may not be that relevant for the Chinese transitional economy. Evidently, China is moving along with its reforms in various financial markets. The modernization of the financial sector, given its close links with other segments of the economy, requires accompanying changes in other sectors and even in politics. While the task is not insurmountable, there are good reasons to expect China to follow its usual incremental and gradualism style in implementing these changes. As such, a fully fledged international RMB will be a distant goal.

Besides some fundamental structural changes in its financial sector, China has to convince many countries to conduct trade and finance transactions in its currency. The persuasion goes beyond economic reasoning. Political considerations, especially in East Asia, could play a non-negligible role in choosing an international currency. The legacies of war, occupation, and communism have induced the antagonism towards regional hegemony.

The ongoing territorial disputes between China and its neighboring countries and China's military buildup, for example, could be proven sensitive issues for pushing the acceptance of the RMB abroad. China has often re-affirmed its commitment to peaceful development, the non-

interference foreign policy, and the Five Principles of Peaceful Coexistence.¹² Nevertheless, for its neighboring countries these reassurances may not be completely convincing, especially when China retains the communist political structure and expands its military capacity. All these considerations would require China to make some extra efforts to promote the acceptance of the RMB in Asia and in the global market.

On a different note, “a journey of thousand miles begins with one small step” – one could see what China has done recently are small first steps that prepare for full convertibility and the internationalization of the Chinese currency RMB. Even though the process could be a fairly long one, China and its currency have great potential to play a more positive role in the global economy. The emergence of the RMB to the center-stage will reflect the underlying shift in the global balance of economic and political power and, at the same time, encourage China to engage the world in a responsive and responsible manner.

¹² The Five Principles are: mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit, and peaceful coexistence. They were results of negotiations between China and India and formally included in the "Agreement Between the People's Republic of China and the Republic of India on Trade and Intercourse Between the Tibet Region of China and India" in 1956. See, for example, <http://www.fmprc.gov.cn/eng/topics/seminaronfiveprinciples/t140777.htm>.

References

- Bank for International Settlements, 2010, *Triennial central bank survey: foreign exchange and derivative market activity in 2010*, Basel.
- Brown, Kevin, Robert Cookson and Geoff Dyer, 2009, "Malaysia adds Renminbi Bonds to Its Reserves," *Financial Times* (September 20, 2009)
- Chen, Hongyi and Wensheng Peng, 2007, "The Potential of the renminbi as an International Currency," *China Economic Issues*, Number 7/07, Hong Kong Monetary Authority.
- Cheung, Yin-Wong, Guonan Ma, Robert N. McCauley, 2011, "Renminbising China's Foreign Assets," *Pacific Economic Review* 16, 1–17.
- Chinn, Menzie and Jeffrey Frankel, 2005, "Will the Euro Eventually Surpass the Dollar as Leading International Reserve Currency?" *NBER Working Paper*, No. 11510.
- Cohen, Benjamin J., 1971, *The Future of Sterling as an International Currency*, London: Macmillan.
- Cui, Li, Chang Shu, and Jian Chang, 2009, "Exchange rate pass-through and currency invoicing in China's Exports," *China Economic Issues*, Number 2/09, Hong Kong Monetary Authority.
- Deloitte China Research and Insight Centre, 2009, "The RMB Abroad," *Measuring Value®*, Issue 2, Deloitte, http://www.deloitte.com/assets/DcomChina/Local%20Assets/Documents/Firmwide/Measuring%20Value/cn_Measuringvalue2_0709_041209.pdf.
- Dobson, Wendy and Paul R. Masson, 2009, "Will the Renminbi Become a World Currency?" *China Economic Review* 20, 124-135
- Eichengreen, Barry, 2005, "Sterling's Past, Dollar's Future: Historical Perspectives on Reserve Currency Competition," *NBER Working Paper*, No. 11336.
- European Central Bank, 2010, *The International Role of the Euro*, <http://www.ecb.int/pub/pdf/other/euro-international-role201007en.pdf>
- Gauthier-Villars, David, 2011, "France Proposes Way to Raise Yuan," *Wall Street Journal*, January 25, 2011, pg. A.9.
- Genberg, Hans, 2009, "Currency Internationalisation: Analytical and Policy Issues," *HKIMR Working Paper* No. 31.

- Goldberg, Linda S., and Cédric Tille.. 2008. “Vehicle Currency Use in International Trade.” *Journal of International Economics* 76, 177-92.
- He, Dong and Robert N McCauley, 2010, “Offshore markets for the domestic currency: monetary and financial stability issues,” presented in the 2010 CESifo Venice Summer Institute on “The evolving role of China in the global economy.”
- Hong Kong Monetary Authority, 2010, “Renminbi (RMB) cross-border trade settlement and net open position,” http://www.info.gov.hk/hkma/eng/guide/circu_date/20111223e1.pdf.
- Hu, Fred, 2008, “The role of the RMB in the world economy,” *Cato Journal* 28, 219–24.
- Huang Yiping, 2010, “Renminbi Policy and the Global Currency System,” China Center for Economic Research, Peking University.
- Ito, Takatoshi, Satoshi Koibuchi, Kiyotaka Sato, Junko Shimizu, 2010, “Why has the yen failed to become a dominant invoicing currency in Asia? A firm-level analysis of Japanese Exporters' invoicing behavior,” *NBER Working Paper*, No. 16231.
- International Monetary Fund, 2010, “IMF Determines New Currency Weights for SDR Valuation Basket,” Press Release No. 10/434.
<http://www.imf.org/external/np/sec/pr/2010/pr10434.htm>
- Jaeger, Markus, 2010, *Yuan as a Reserve Currency*, Deutsche Bank Research,
- Kenen, Peter, 1983, *The Role of the Dollar as an International Currency*, Occasional Papers No. 13, Group of Thirty, New York.
- Krugman, Paul, 1984, “The International Role of the Dollar: Theory and Prospect,” Chapter 8, John Bilson and Richard Marston, eds., *Exchange Rate Theory and Practice*, 261-278, University of Chicago Press.
- Lee, Jong-Wha, 2010, “Will the Renminbi Emerge as an International Reserve Currency?” Chapter 15, Jeffrey D. Sachs, Masahiro Kawai, Jong-Wha Lee, and Wing Thyee Woo, Editors, *The Future Global Reserve System — An Asian Perspective*, Asian Development Bank, <http://aric.adb.org/grs/papers/Lee.pdf>
- McCauley, Robert N., 2011, The internationalisation of the renminbi,
http://www.hkimr.org/cms/upload/news_app/news_0_56_McCauley_speech_HKIMR_14_Jan2011.pdf

- McMahon, Dinny, 2010, "China's Call for More Clout, Wall Street Journal," *Wall Street Journal*, November 17, 2010. pg. C.20.
- Ministry of Finance, Japan, 2003, "Study Group for the Promotion of the Internationalization of the Yen" - Chairpersons' Report, <http://www.mof.go.jp/english/if/e20030123.htm>
- Murphy, Melissa and Wen Jin Yuan, 2009, "Is China Ready to Challenge the Dollar?" Center for Strategic and International Studies, Washington, D.C.
(http://csis.org/files/publication/091007_Murphy_IsChinaReady_Web.pdf).
- People's Bank of China and International Monetary Fund, 2009, *Note purchase agreement between the People's Bank of China and the International Monetary Fund*,
<http://www.imf.org/external/np/pp/eng/2009/090209.pdf>
- People's Bank of China, the Ministry of Finance, the National Development and Reform Commission, and the China Securities Regulatory Commission, 2010, *Provisional Administration Rules on RMB Bond Issuance by International Development Institutions* (国际开发机构人民币债券发行管理暂行办法),
http://www.pbc.gov.cn/publish/bangongting/82/2010/20100930144622583961548/20100930144622583961548_.html
- State Administration of Foreign Exchange, 2003, Measures for Managing Border Trade Foreign Exchanges (边境贸易外汇管理办法), http://www.safe.gov.cn/model_safe/laws/law_detail.jsp?ID=8010000000000000,14&id=4.
- Stier Olaf, Kerstin Bernoth, Alexander Fisher, 2010, "Internationalization of the Chinese Renminbi: An Opportunity for China," *Weekly Report* No. 17/2010, German Institute for Economic Research, Berlin.
- Strategy, Policy and Review Department, IMF, 2010, *Reserve Accumulation and International Monetary Stability: Supplementary Information*, International Monetary Fund,
<http://www.imf.org/external/np/pp/eng/2010/041310a.pdf>.
- Takagi, Shinji (2011), "Internationalizing the Yen, 1984-2003: Unfinished Agenda or Mission Impossible?" Chapter 8, Yin-Wong Cheung and Gounan Ma, eds, *Asia and China in the Global Economy*, The World Scientific Publishing Co. Pte. Ltd.
- Tavlas, George S., 1991, "On the International Use of Currencies: The Case of the Deutsche Mark," *Essays in International Finance*, No. 181, Princeton University.

- United Nations, 2009, *Report of the Commission of Experts of the President of the United Nations General Assembly on Reforms of the International Monetary and Financial System*, http://www.un.org/ga/econcrisissummit/docs/FinalReport_CoE.pdf .
- US Treasury Department, 2006, “*The Use and Counterfeiting of United States Currency Abroad, Part 3 - The Final Report to the Congress by the Secretary of the Treasury, in Consultation with the Advanced Counterfeit Deterrence Steering Committee, Pursuant to Section 807 of PL 104-132*”
<http://www.treasury.gov/about/organizationalstructure/offices/DomesticFinance/Documents/the%20use%20and%20counterfeiting%20of%20u.s.%20currency%20abroad%20%20part%203%20september2006.pdf>.
- Wei., Lingling, 2011, “New Move to Make Yuan a Global Currency,” *Wall Street Journal*, Jan 12, 2011, A.1.
- Wenzhou Foreign Trade and Economic Cooperation Bureau, 2011, “Measures for Managing Wenzhou City Individual’s Foreign Direct Investment (Trial) (温州市个人境外直接投资管理辦法(試行))”, http://ftec.wenzhou.gov.cn/art/2011/1/7/art_3528_53500.html
- Wu, Friedrich, Rongfang Pan, and Di Wang, 2010, “Renminbi’s Potential to Become a Global Currency,” *China & World Economy* 18, 63-81.
- Zhou, Xiaochuan (2009), “Reform the International Monetary System,” People’s Bank of China, http://www.pbc.gov.cn/publish/english/956/2009/20091229104425550619706/20091229104425550619706_.html.

Table 1. Bilateral Currency Swap Agreements with the People's Bank of China

Date of agreement	Counterparty	Size of swap Lines	Maturity (year)	Renewable
12 December 2008	Bank of Korea	RMB 180 billions and KRW 38 trillions	3	yes
20 January 2009	Hong Kong monetary authority	RMB 200 billions and HKD 227 billions	3	yes
8 February 2009	Bank Negara Malaysia	RMB 80 billions and MYR 40 billions	3	yes
11 March 2009	National Bank of the Republic of Belarus	RMB 20 billions and BYR 8,000 billions	3	yes
23 March 2009	Bank Indonesia	RMB 100 billions and IDR 175 trillions	3	yes
2 April 2009	Central Bank of Argentina	RMB 70 billions and ARS 38 billions	3	yes
9 June 2010	The Central Bank of Iceland	RMB 3.5 billions	3	yes
23 July 2010	Monetary Authority of Singapore	RMB 150 billions and SGD 30 billions	3	yes

Note: The bilateral currency swap arrangements concluded as of January 2011 are presented. The information is compiled by the authors.

Table 2. Renminbi Denominated (Dim Sum) Bonds Issued in Hong Kong

Issue date	Issuers	Size (billions, yuan)	rates	Maturity (year)
July 2007	China Development Bank	5	3 percent	2
Aug 2007	Export-Import Bank of China	2	3.05 percent, 3.2 percent	2, 3
September 2007	Bank of China	3	3.15 percent / 3.35 percent	2, 3
July 2008	Bank of Communications	3	3.25 percent	2
August 2008	Export-Import Bank of China	3	3.4 percent	3
September 2008	China Construction Bank	3	3.24 percent	2
September 2008	Bank of China	3	3.25 percent / 3.4 percent	2, 3
June 2009	HSBC (China)	1	Floating rate	2
June 2009	Bank of East Asia (China)	4	2.8 percent	2
August 2009	China Development Bank	2	2.45 percent	2
August 2009	China Development Bank	1	Floating rate	2
September 2009	Ministry of Finance of China	6	2.25 percent, 2.7 percent / 3.3 percent	2, 3, 5
July 2010	Hopewell Highway Infrastructure Ltd.	1.38	2.98 percent	2
August 2010	McDonald's	0.2	3 percent	3

September 2010	Bank of China	5	2.65 percent / 2.9 percent	2, 3
September 2010	Deutsche Bank, Hong Kong	0.2	2 percent (half year)	2
October 2010	China Development Bank	2	Floating rate	3
October 2010	Asian Development Bank	1.2	2.85 percent	10
October 2010	China Development Bank	3	2.7 percent	3
October 2010	Sinotruk (Hong Kong)	2.7	2.95 percent	2
Nov 2010	Export-Import Bank of China	5	2.65 percent	3
November 2010	Caterpillar	1	2.25 percent	2
December 2010	Ministry of Finance, China	8	1.6 percent (retail)	2
January 2011	The World Bank	0.5	0.95 percent	2

Note: The Dim Sum bonds that have been issued as of January 2011 are presented. The information is compiled by the authors.

Table 3. Panda Bonds Issued in China

Issue Date	Issuers	Size (billions, yuan)	Rates	Maturity (year)
October 2005	Asian Development Bank	1	3.34 percent	10
October 2005	International Finance Corporation	1.13	3.4 percent	10
November 2006	International Finance Corporation	0.87	3.2 percent	7
December 2009	Asian Development Bank	1	4.2 percent	10
May 2010	Bank of Tokyo-Mitsubishi UFJ (China)	1	Negotiated	2

Note: The Panda bonds that have been issued as of January 2011 are presented. The information is compiled by the authors.