

The internationalization of the RMB: where does the RMB currently stand in the process of internationalization

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Renminbi (RMB) internationalisation has been a topic for lively discussion since China accelerated its promotion of the RMB's status as a leading international currency in 2009. China has undertaken some concrete steps to push forward RMB internationalisation such as the Pilot Scheme of Cross-Border Trade Settlement in the RMB, RMB Qualified Foreign Institutional Investor, Dim Sum bonds, and bilateral currency swap agreements. Where the RMB stands in the process of becoming an international currency is assessed by reviewing the progress China has made and analysing the challenges China faces in internationalising its currency. Based on this assessment, a roadmap for internationalising the RMB is drawn from two perspectives: the functions of the RMB as an international currency and the scope of RMB use in the global financial system. A possible roadmap for RMB internationalisation is to begin from RMB settlement in cross-border trade, followed by regionalisation of the RMB, and finally globalisation. With respect to achieving the functions of an international currency, the RMB should first become a settlement currency, then a denomination currency, and lastly, a reserve currency.

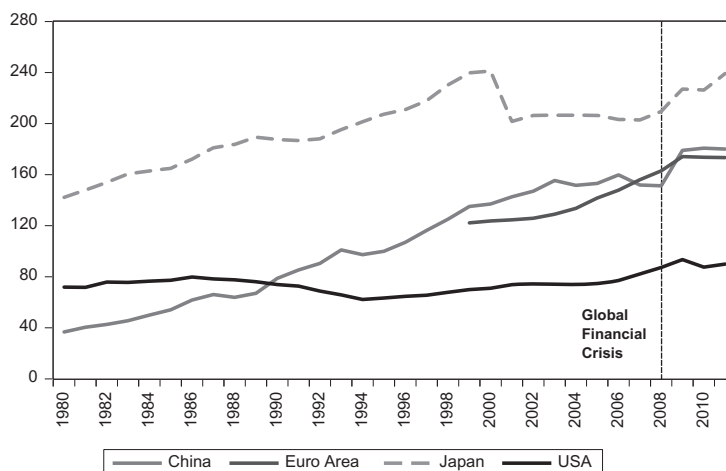
Introduction

China has achieved remarkable economic development. It became the largest exporter in 2009 and overtook Japan to become the world's second largest economy in 2010. Of more interest, China became the second largest currency issuer by surpassing the whole Euro Area in 2010. Figure 1 shows that in 2011, China's money and quasi money (M2) to GDP ratio reached 180 per cent, which was higher than the Euro Area's 173 per cent and the USA's 90 per cent. However, China's currency, the renminbi (also called the yuan, and hereafter, the RMB), has not achieved the status as an

international currency to match China's position in the global economic and financial system. Before 2009, the internationalisation of the RMB was not regarded as a policy priority by the government or as a research priority topic by scholars. One of considerations in this assessment was that China would not be able to control capital flows and the exchange rate if the RMB became an international currency. However, the global financial crisis (GFC) of 2007–08—when the US dollar depreciated considerably and the USA adopted its so-called quantitative easing policy (known as QE1, QE2, and QE3)—which posed the threat of excessive short-term capital inflows and possible losses of foreign reserves, dramatically

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Figure 1
Money and quasi money (M2) as a percentage of GDP, 1980–2011



Source: World Bank, World Development Indicators database.

changed China's attitude to RMB internationalisation. China realised that the benefits of an international RMB could outweigh the costs of internationalisation. Also, the financial crisis has provided China an opportunity to promote the RMB's status as a regional or international currency, with the weakening of the US dollar's domination in the global financial system and the euro not fully recovered from the euro crisis. China began the process of RMB internationalisation in 2009 as a part of its ongoing financial system reform.¹

Internationalisation of the RMB has attracted a lively discussion since 2009. However, a possible roadmap for RMB internationalisation remains unclear because of the complexity of China's financial system reform and the current global economic environment—although a few attempts at a roadmap can be seen in recent studies (Ito 2011; Vallee 2012; Yu 2012). Here, we assess where the RMB is standing in its journey towards internationalisation after reviewing the progress made and analysing the challenges faced. A possible

roadmap for internationalising the RMB is drawn from two perspectives: the functions of the RMB as an international currency and scope of RMB use in the global financial system.

The remainder of the paper is organised as follows. The characteristics of an international currency are briefly described in next section. It is followed by discussing why the RMB could become an international currency. We then review the progress China has made and the challenges China is facing in pushing forward on RMB internationalisation. Lastly, we provide a possible roadmap for internationalising the RMB from two perspectives based on current status of the RMB.

What is an international currency?

How to classify a currency as an international currency has been relatively well studied (for example, Kenen 1983; Chinn and Frankel 2005; Ito 2011). Kenen (2009:1)² says that 'An international currency is one that is used instead of the

¹ Financial system reform was included into China's 12th Five-Year Plan (2011–15) as a policy priority.

² Kenen (2009) also writes 'an international currency is one that is used and held beyond the borders of the issuing country, not merely for transactions with that country's residents, but also, and importantly, for transactions between non-residents'.

Table 1
Functions of an international currency

Functions	Public sector	Private sector
Store of value	International reserves	Currency substitution (private dollarisation) and investment (portfolio allocation)
Medium of exchange	Vehicle currency for foreign exchange intervention	Invoicing and settling for international trade and financial transactions
Unit of account	Anchor for pegging local currency	Denominating international trade and financial transactions

Sources: Gao and Yu (2009) and Chinn and Frankel (2005), originally based on Kenen (1983).

national currencies of the parties directly involved in an international transaction, whether the transaction in question involves a purchase of goods, services or financial assets'. Based on Kenen's (1983) theoretical framework, Chinn and Frankel (2005), Ito (2011), and Gao and Yu (2009) give a summary of functions played by an international currency. Table 1 shows that an international currency plays three functions: store of value, medium of exchange, and unit of account. What's more, all three functions could be split into two dimensions: public (government) and private. For the public sector, an international currency could be an international reserve currency (store of value), a vehicle currency for foreign exchange intervention (medium of exchange), and an anchor for local currency pegging (unit of account). For the private sector, an international currency could be used in currency substitution and investment (store of value), invoicing and settlement for international trade and financial transactions (medium of exchange), and denominating international trade and financial transactions (unit of account).

Generally speaking, in the current global financial system, only the US dollar is unquestionably an international currency. It meets all standards in each of the functions (Table 1). The euro was once regarded as a potential competitor to the US dollar (Chinn and Frankel 2008). But the euro crisis has dramatically weakened this expectation, although the value of the euro has not weakened over the crisis

period. However, the euro will only survive if European governments can keep the sovereign debt crisis under control. In the mid-1980s, Japan tried to promote yen internationalisation but failed (see Takagi 2009 and Ito et al. 2010). These experiences show that there is no common path to internationalising a currency. To some extent, the internationalisation that occurred was an unplanned side effect of economic growth and financial expansion (Frankel 2011). The country issuing an international currency can enjoy benefits such as reducing exchange rate risks and costs, boosting foreign trade, and gaining seigniorage. But it has to strike a balance between national and global monetary policy.

Why the RMB could be an international currency

Domestic demands

Historical experience indicates that the currencies of economically large countries with large trade volumes are likely to become an international currency. However, economic size and trade volume is only one of the conditions for currency internationalisation. Frankel (2011) points out that there are three fundamental factors determining whether a currency could become an international currency: size of home economy, confidence in the value of the currency, and the development of its financial

markets. Take Switzerland for example. The Swiss franc cannot become an international currency because the Swiss economy is relatively small, although the Swiss economy is open and the Swiss franc is stable. In contrast, in 2011, China's GDP accounted for 10.5 per cent of the world's total GDP, and its global export share was 9.5 per cent. China's growth and its trade volume not only require more trade settlement and financial transactions to be conducted in the RMB, but also provide China a solid foundation for RMB internationalisation.

According to statistics of the People's Bank of China (PBoC), China's foreign reserves reached US\$3.31 trillion in 2012. It is estimated that more than 70 per cent of China's foreign reserves is in US dollar-denominated assets, although the PBoC has never published information on the composition of its foreign reserves. During the GFC, the US dollar was devalued significantly because of the quantitative easing policy, which threatened the value of China's US dollar-denominated assets. Although the dollar has recovered gradually since the end of 2008, China and other emerging economies that hold a large volume of US dollar assets as their foreign reserves remain deeply concerned about the risk. Therefore, China has attempted to diversify its foreign reserves, especially its foreign exchange reserves. Obviously, an internationalised RMB would help China reduce the potential for losses on its foreign reserves. This is one of the reasons for China beginning to internationalise the RMB since 2009.

External factors

Because of the GFC, the world became more aware of the vulnerability of a global monetary system dominated by the US dollar.³ One of the objectives of the G20 is restructuring the global monetary system. As the second largest economy, China is now expected to take more responsibilities in reforming the global financial system within the G20 framework. China

could take advantage of this opportunity to improve the RMB's status in the global financial system. Also, special drawing rights (SDRs) as a super-sovereignty currency are expected to complement the US dollar and play a more important role as an international reserve currency. Other major currencies should be included in the SDR's currency basket (Zhou 2009). The possibility of including the RMB in the SDR currency basket has been widely discussed at G20 level,⁴ although it could take years to achieve this goal (see further below).

Progress in RMB internationalisation

In line with efforts to internationalise the RMB, measures have been introduced by China to promote the RMB's regional and international status (see Table 2). We review these measures so as to evaluate how far the RMB has moved towards being an international currency.

Cross-border trade settlement in the RMB

China began the process of RMB internationalisation through promoting RMB use in trade settlements in 2009. The Pilot Program of RMB Settlement of Cross-Border Trade Transactions was introduced by China's State Council on 8 April 2009 and has been officially in effect since 1 July 2009. According to this pilot scheme, the PBoC joined by the Ministry of Finance, Ministry of Commerce, General Administration of Taxation, and China Banking Regulatory Commission are responsible for verifying the list of participating firms, which are recommended by provincial governments. Initially, this pilot scheme covered five mainland cities: Shanghai, Guangdong, Shenzhen, Dongguan, and Zhuhai, which are foreign trade-concentrated cities. There are two paths for settling cross-border trade in the RMB. First, participating firms can do RMB cross-border trade settlement and clearing through clearing banks in Hong Kong, China [hereafter, Hong Kong Special

³ He (2012) has argued differently.

⁴ Currently, there are four currencies in the SDR's currency basket: the US dollar (41.9 per cent), the euro (37.4 per cent), British pound (11.3 per cent), and Japanese yen (9.4 per cent).

Table 2
Measures taken by China towards RMB internationalisation

Date	Policy	Purpose
April 2009	Pilot Program of renminbi (RMB) Settlement of Cross-Border Trade Transactions	To increase RMB use in cross-border trade settlements
July 2007	The first Dim Sum bond issued in Hong Kong SAR by China Development Bank (CDB)	To expand RMB use in trade settlement and financial transactions
January 2011	Administrative Rules for the Pilot Program of Settlement for RMB-denominated Outward Direct Investment (ODI)	To an RMB use and support the pilot programme of RMB settlement of cross-border trade transactions
October 2011	Administrative Rules on Settlement of RMB-denominated Foreign Direct Investment (FDI)	To widen RMB recycling channel and expand the use of RMB in cross-border trade and investment
December 2011	RMB Qualified Foreign Institutional Investor (RQFII)	To widen the investment channel for offshore RMB recycling
Since 2008	Bilateral currency swap agreements	To strengthen financial cooperation and boost bilateral trade and investment

Source: Author's summary.

SAR = Special Administrative Region.

Administrative Region (SAR)] and Macao, China (hereafter, Macao SAR). Currently, the Bank of China (Hong Kong) and Bank of China (Macao) are designated as RMB settlement and clearing banks in Hong Kong SAR and Macao SAR. A second path is for participating firms to settle their cross-border trade in the RMB through domestic commercial banks as agencies of overseas commercial banks.

According to the PBoC, this pilot scheme worked smoothly, and demand for cross-border trade settlement in the RMB was increasing. Therefore, in June 2010, China expanded the scheme to 20 provinces and regions; and the number of participating firms increased considerably to 67,724 firms from 365 firms (see Table 3). One year later, the scheme was expanded to cover all of China's regions and firms. According to the PBoC and the Hong Kong Monetary Authority (HKMA), RMB settlement in cross-border trade increased more than five times, reaching 2,940 billion yuan in 2012, from 500 billion yuan in 2010 (see Figure 2). About ninety per cent of total RMB settlement in cross-border

trade was conducted in Hong Kong SAR in 2012, indicating that Hong Kong SAR as a premier offshore RMB centre plays a crucial role in RMB internationalisation.

With rapid growth in RMB use in cross-border trade settlement, the status of the RMB as a major payment currency in the global financial system improved gradually. In Figure 3, data from Society for Worldwide Interbank Financial Telecommunication (SWIFT) shows that the share of the RMB in the world payment system increased steadily from 0.29 per cent in November 2011 to 0.63 per cent in January 2013. The RMB ranked 13th among major currencies in January 2013 compared with 17th in November 2011 (see Figure 3).

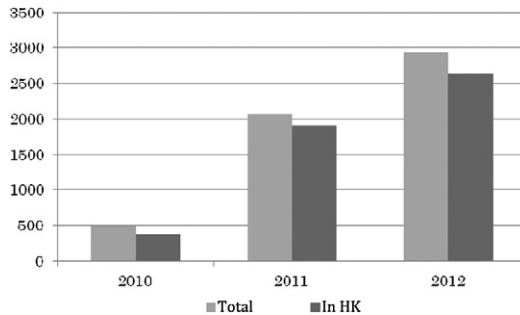
China's central government initially gave preference to Hong Kong SAR as a global hub of offshore RMB businesses. China has launched RMB businesses including deposits, remittances, exchange, and credit card operations in Hong Kong SAR since 2004. However, RMB businesses in Hong Kong SAR were very limited in the early period. For instance, RMB deposits in Hong Kong SAR amounted to

Table 3
Pilot Program of RMB Settlement of Cross-Border Trade Transactions

Date	Scope		Coverage
	Mainland	Overseas	
1 July 2009	Five cities: Shanghai, Guangzhou, Shenzhen, Dongguan, and Zhuhai	Hong Kong SAR, Macao SAR and ASEAN	365 firms
22 June 2010	Twenty provinces and regions: Beijing, Tianjin, Inner Mongolia, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Hubei, Guangdong, Guangxi, Hainan, Chongqing, Sichuan, Yunnan, Jilin, Heilongjiang, Tibet, and Xinjiang	Global	67,724 firms
24 October 2011	All regions	Global	All firms

Source: People's Bank of China.
 SAR = Special Administrative Region.

Figure 2
Amount of renminbi settlement in cross-border trade, total and in Hong Kong, in billion yuan, 2010–2012



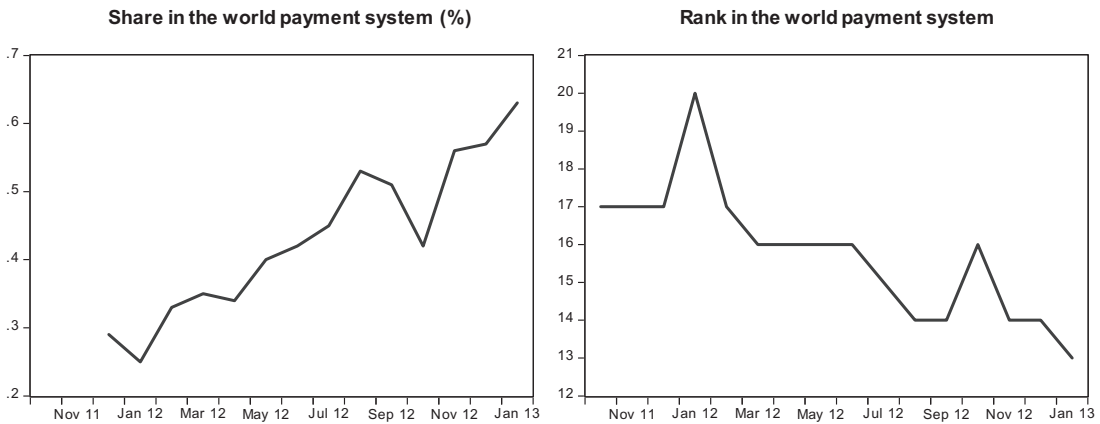
Source: People's Bank of China and the Hong Kong Monetary Authority.

about 2,506 million yuan of demand and savings deposits, and 3,040 million yuan deposits in April 2004 (see Figure 4). After the Pilot Scheme of Cross-Border Trade Settlement in the RMB was introduced in 2009, in particular, after this scheme was expanded in 2010, RMB deposits in Hong Kong SAR surged. In January 2013, according to statistics of the HKMA, RMB demand and savings deposits increased to 125 billion yuan, more than ten times higher than in April 2004, while RMB

time deposits increased even more rapidly to 498 billion yuan.

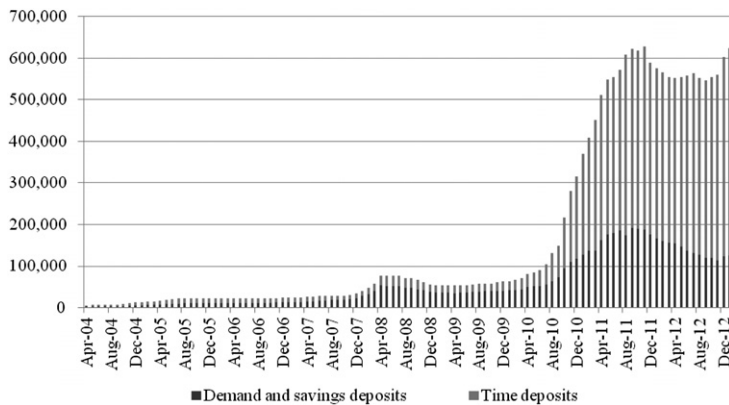
From Figure 4, it can be seen that RMB deposits in Hong Kong SAR have fallen since December 2011. The reasons behind this decline are: first, expectations of RMB appreciation have weakened since the end of 2011. After appreciating moderately from 2005, the RMB exchange rate increased considerably in nominal and real terms. It was believed that the RMB exchange rate approached its equilibrium level at the end of 2011. Thus, the motivation for holding RMB in Hong Kong SAR for exchange rate arbitration was not as strong as before. Since July 2012, the RMB has accelerated its appreciation against the US dollar. Expectations of RMB appreciation strengthened, and thus RMB deposits in Hong Kong SAR rebounded. Second, the development of Dim Sum bonds (bonds issued in Hong Kong SAR and denominated in the RMB) and the introduction of the RMB Qualified Foreign Institutional Investor (RQFII) in December 2011 widened investment channels for the use of offshore RMB in Hong Kong SAR. Some RMB deposits were used in purchasing Dim Sum bonds or investing in mainland stock markets through the RQFII scheme. Lastly, some RMB funds may have flowed towards other offshore RMB centres such as Singapore

Figure 3
Renminbi's share and rank in the global payment system, November 2011–January 2013



Source: RMB Tracker of Society for Worldwide Interbank Financial Telecommunication.

Figure 4
Renminbi deposits in Hong Kong Special Administrative Region (million yuans), April 2004–January 2013



Source: The Hong Kong Monetary Authority.

and London, where offshore RMB businesses have also gradually expanded.

Assets denominated in the RMB

As Table 4 shows, diversified institutions were allowed to issue and invest in Dim Sum bonds in Hong Kong SAR. Dim Sum bonds issued in Hong Kong SAR have grown rapidly since the

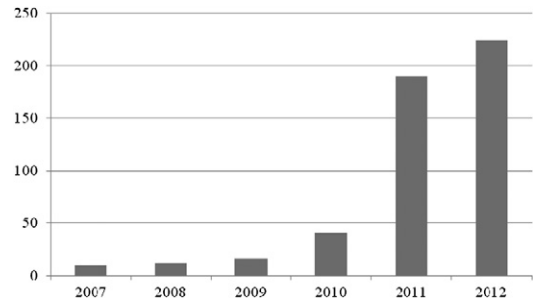
first Dim Sum bond was issued by China Development Bank in July 2007. The first foreign issuer, McDonald's, issued 200 million yuan in October 2010 and 1 billion yuan in November 2010, followed by HSBC, Volkswagen, and other foreign firms. In the same year, China's Ministry of Finance issued the first sovereign Dim Sum bond. HSBC issued the first non-Hong Kong

Table 4
Issuers and investors of Dim Sum bonds in Hong Kong SAR

Ministry of Finance of China	
Issuers	<p>Financial institutions or companies in Mainland China (subject to approval by the relevant authorities in Mainland China), for example, China Development Bank, Baosteel</p> <p>International financial institutions (for example, Asian Development Bank and the World Bank)</p> <p>Financial institutions or companies incorporated outside Mainland China (for example, Hopewell, McDonald's, Volkswagen, Fonterra, Axiata, and Emirates NBD)</p>
Investor base	<p>Commercial and private banks, insurance companies, investment funds, and corporates from Hong Kong and overseas</p> <p>Offering and marketing activities are subject to existing requirements under applicable laws in Hong Kong</p>

Source: Hong Kong Monetary Authority.
SAR = Special Administrative Region.

Figure 5
Dim Sum bonds issuance in Hong Kong Special Administrative Region (billion yuan), 2007–12



Note: 2012 data to end of September.

Source: Hong Kong Monetary Authority and Nomura Research Institute.

reflecting the fact that the interest of international institutions in using and investing in the RMB is increasing. The expectation of RMB appreciation and an increasing yield spread between the Mainland and Hong Kong SAR have motivated domestic and international institutions to issue Dim Sum bonds in Hong Kong SAR. As well, expectations of RMB appreciation and restrictions on foreign investors' direct investment in RMB financial products on the Mainland have encourage investors to purchase Dim Sum bonds as a channel for indirectly investing in the Mainland's financial markets.

RMB-denominated bond in London in April 2012, followed by China Construction Bank, which in November 2012 became the first Chinese bank to issue RMB-denominated bonds in London.

After China expanded the eligibility of issuers from Mainland financial institutions to multinational corporations and international financial institutions based in Hong Kong SAR in 2010, and to Mainland non-financial corporations in 2011, Dim Sum bonds issuance in terms of volume and amount has increased sharply (see Figure 5). More than 200 billion yuan of Dim Sum bonds were issued in 2012,

RQFII

To deepen China's securities market and diversify the types of investors, China launched the QFII programme in 2002. Under this programme, foreign investors approved by China Securities Regulatory Commission (CSRC) can access China's stock markets. Each QFII is granted a quota by China's State Administration of Foreign Exchange. In December 2011, the CSRC announced new RMB programme called RQFII, which allow QFIIs to invest in Mainland securities markets within a certain quota using RMB funds raised in Hong Kong SAR. Additionally, the RQFII can invest

in China's interbank bond market, which was a significant step forward in widening investment channels for offshore RMB. The initial total investment quota was 20 billion yuan. In April 2012, the CSRC increased the quota to 70 billion yuan. What's more, the CSRC stated that the RQFII could be increased in accordance with the needs of China's financial market openness and RMB internationalisation. It is widely believed that widening investment channels for offshore RMB recycling to the Mainland is critical for boosting RMB use in trade settlement and financial transactions. Thus, the RQFII programme is an important measure to facilitate RMB internationalisation.

China's RMB-denominated outward direct investment and foreign direct investment

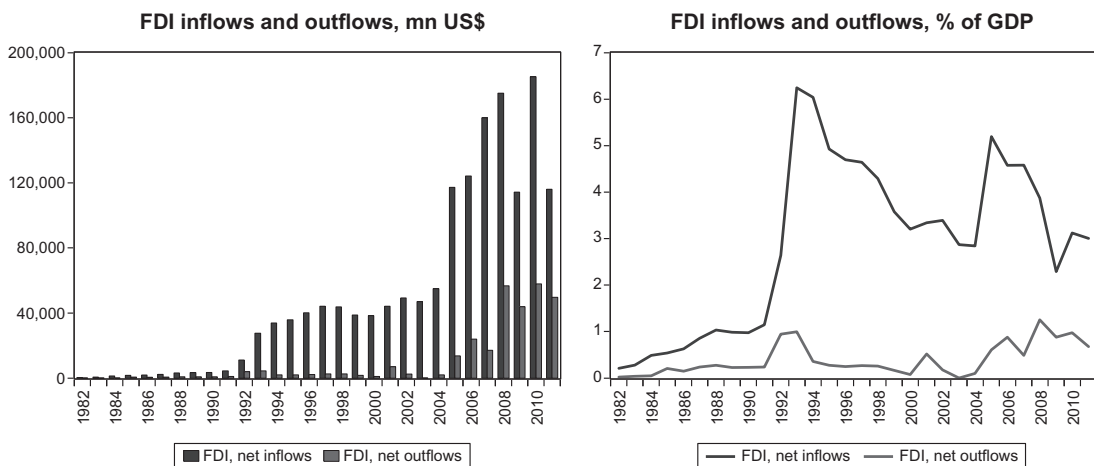
As Figure 6 demonstrates, China's outward direct investment (ODI) has surged since 2005, in 2010 becoming the fifth largest overseas direct investment country in the world. Although there are no statistics showing how much China's ODI is in RMB, China's RMB ODI will increase steadily along with growth

of China's overseas investment. In order to the facilitate the Pilot Scheme of Cross-Border Trade Settlement in the RMB, the PBoC published the Administrative Rules for the Pilot Program of Settlement for RMB-denominated ODI on 6 January 2011. In October of the same year, the Administrative Rule on Settlement of RMB-Denominated Foreign Direct Investment was launched, with the aim of widening the RMB recycling channel. These two rules clearly signal that China is intending to expand RMB use in trade and investment.

Bilateral currency swap agreements

In addition to participating in the Chiang Mai Initiative in 2000 and the Chiang Mai Initiative Multilateralisation in 2010, up until March 2013, China had signed 19 bilateral currency swap agreements (BCSAs) with other economies (see Table 5). The main purpose of signing BCSAs is to strengthen financial cooperation and boost bilateral trade and investment. However, since China accelerated its push on RMB internationalisation, BCSAs have been regarded as a channel for providing foreign central banks the RMB liquidity to facilitate bilateral trade settled in RMB and promote

Figure 6
China's foreign direct investment (FDI) inflows and outflows, 1982–2011



Source: Ministry of Commerce of China and World Bank, World Development Indicators.

Table 5
China's bilateral currency swap agreements, 2008–13

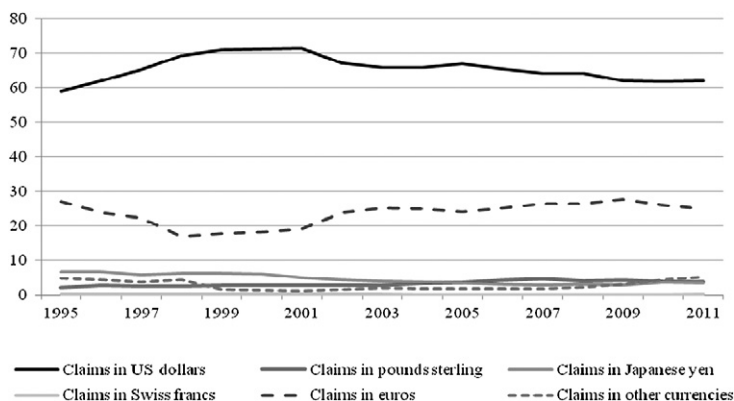
Date	Counterparty	Size (RMB billions)	Maturity
09/10/2013	The EU	350	3 years
12/09/2013	Albania	2	3 years
09/09/2013	Hungary	10	3 years
22/06/2013	The UK	200	3 years
26/03/2013	Brazil	190	3 years
26/06/2012	Ukraine	15	3 years
22/03/2012	Australia	200	3 years
20/03/2012	Mongolia	10	3 years
21/02/2012	Turkey	10	3 years
08/02/2012	Malaysia	180	3 years
17/01/2012	the UAE	35	3 years
23/12/2011	Pakistan	10	3 years
22/12/2011	Thailand	70	3 years
13/06/2011	Kazakhstan	7	3 years
19/04/2011	Uzbekistan	0.7	3 years
18/04/2011	New Zealand	25	3 years
23/07/2010	Singapore	150	3 years
09/06/2010	Iceland	3.5	3 years
02/04/2009	Argentina	70	3 years
23/03/2009	Indonesia	100	3 years
11/03/2009	Belarus	20	3 years
20/01/2009	Hong Kong	200	3 years
12/12/2008	South Korean	180	3 years

Note: 1. all swap agreement are extendable upon the agreement of both parties.

2. 2013 is up to October.

Source: the PBoC.

Figure 7
Official foreign exchange reserves, by currency, 1995–2011 (per cent)



Notes: (1) Before 1999, claims of euro are the sum of claims in Deutsche mark, French franc, Netherlands guilder, and European currency units; (2) percentage of claims of each currency of total allocated exchange reserves.

Source: Currency Composition of Official Foreign Exchange Reserves database, the IMF.

RMB-denominated investment. However, the BCSA between the PBoC and the HKMA may be an exception. In January 2009, the PBoC signed a bilateral currency wrap agreement totalling 200 billion yuan (HK\$227 billion) with the HKMA, with the main purpose of cultivating Hong Kong SAR as a premier centre for offshore RMB. It is foreseeable that more BCSAs will be signed between the PBoC and other central banks if China continues to promote RMB internationalisation.

Official foreign reserves in RMB

To be used as an international reserve currency is one of the most important functions of an international currency. According to the International Monetary Fund (IMF), there are five major currencies widely used as international reserve currencies in global reserves pools: US dollar, euro, Japanese yen, British pound, and Swiss franc. As Figure 7 shows, the US dollar is the most important international reserve currency, accounting for 60–70 per cent of total global foreign exchange reserves during the period 1995–2011. The euro accounts for 20–30 per cent, followed by Japanese yen, British pound, and Swiss franc. The share of the US dollar and the euro together is about 90 per cent over the period. This suggests that other currencies are far behind the US dollar and the euro as international reserve currencies. It appears that it will take many years, if not many decades, for the RMB to emerge as an international reserve currency.

Currently, the RMB held by other central banks as foreign exchange reserves are extremely limited, although it is reported that more central banks have begun to hold RMB assets as a part of their foreign reserves. The Austrian central bank signed agreements for investing in China's interbank bond market⁵ with the PBoC in November 2011, followed by

the World Bank in April 2012, and the Indonesian central bank in July 2012. Besides Nigeria, which announced that it would hold 5–10 per cent of its foreign reserves in RMB assets,⁶ Chile, Brazil, and some Asian countries are reported to be storing RMB assets, although the amount of RMB assets held remains unclear. More recently, Japan was granted a US\$10.3 billion (855 billion yen) quota to purchase China government bonds in March 2012. This evidence indicates that other countries' demand for holding RMB assets as foreign reserves has increased and shows the efforts of China to gradually liberalise its financial accounts.

Recently, at G20 level, the topic of when the RMB should be included in the currency basket of the SDR was discussed. China expressed its willingness for further discussion of the topic. Obviously, becoming a currency in the SDR's currency basket would significantly improve the RMB's international status. Obstacles to the RMB being included in the SDR's currency basket are that the RMB is not a freely convertible currency and that the RMB exchange rate is not a freely floating regime. From China's side, some think that China should not be in any hurry to allow the RMB to join the SDR's currency basket because China needs time to prepare for it.⁷ The IMF's executive board reviews the SDR's currency basket every five years. It is likely that China will show more interest in including the RMB in the SDR's currency basket in the next SDR valuation review in 2015.

Challenges to RMB internationalisation

From the above review, we see that China has achieved significant progress in RMB internationalisation since 2009. Some argue that the

5 Financial products in China's interbank bond market include government bonds, policy bank bonds, central bank bills, commercial bank sub-bonds, short-term bonds, corporate bonds, and asset-backed securities.

6 In September 2011, the Nigerian central bank announced that it had included the RMB in its foreign reserves in order to diversify its foreign reserves, which were dominated by the US dollar, the euro, and British pound. Further, during his visit to China in September 2011, the governor of the Nigerian central bank said that RMB assets in Nigeria's foreign reserves would account for 5–10 per cent of the total.

7 Zhou Xiaochuan, the governor of the PBoC, has stated publicly that 'China welcomes suggestions on including the RMB into SDR's basket. But China is patient and in no hurry'.

RMB could overtake the US dollar to become the leading international currency within a decade, at least in some aspects of the global monetary system. But historical experience and reality tell us that the process of RMB internationalisation will not be a smooth journey. The British pound lost its status as the most important international currency after World War I. In 2010, it only accounted for around 8 per cent of the global payment system. In the 1980s the Japanese yen and in the 2000s the euro were widely predicted to be rivals to the US dollar. But there is now no discussion of the yen being the next major international currency, while the euro has not fully recovered from the euro crisis.

Asymmetry of RMB outflows and inflows

Expansion of RMB use in cross-border trade settlement and the increase in RMB deposits in Hong Kong SAR proved that there is strong overseas demand for the RMB. However, a great deal of the RMB has been accumulated outside the Mainland, especially in Hong Kong SAR, because of the limited investment channels for offshore RMB recycling to the Mainland. To broaden the investment channels for offshore RMB to flow back to the Mainland, China took measures such as the RMB-denominated foreign direct investment and ODI, the RQFII, and allowing foreign central banks to invest in China's interbank bond market. As a result of these actions, in January 2013, 15 Hong Kong banks provided 2 billion yuan to 15 Chinese firms registered in Qianhai.⁸

However, while these measures are helpful in widening investment channels for offshore RMB returning to the Mainland, there still exists asymmetry between RMB outflows and inflows. It is foreseeable that strong demand for the RMB in trade and financial transactions will continue in the short and medium terms because of expectations of RMB appreciation and expansion of RMB use in cross-border trade settlements. Therefore, China needs to

broaden investment channels for offshore RMB recycling to the Mainland. Only when offshore RMB can freely return to the Mainland for investment will the use of the RMB dramatically increase. This will not be an easy task because China's capital account is still strictly controlled. But China could increase the quota and expand the scope of RQFII to allow more offshore RMB to invest in the Mainland while keeping the capital account controlled. China could also increase the number of foreign institutional investors who can participate in China's interbank bond market. These measures would help to balance RMB inflows and outflows.

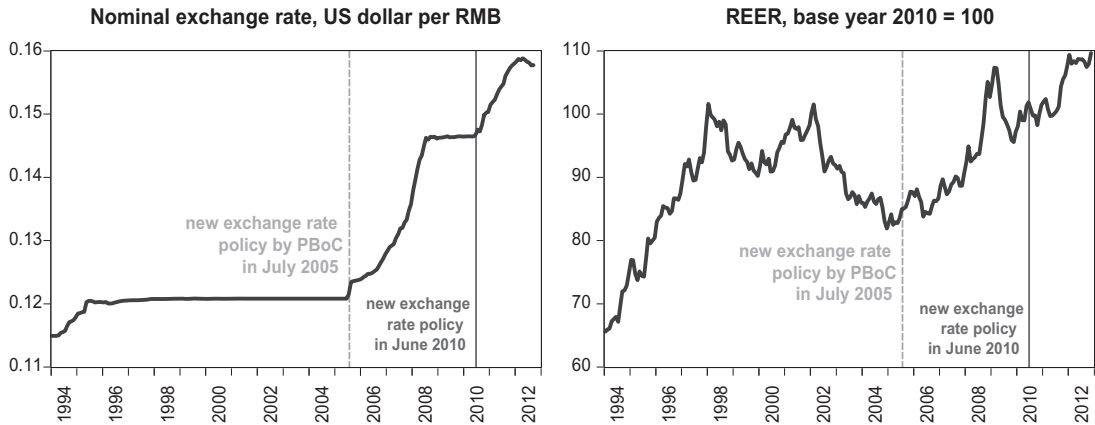
Development of liquid financial markets

According to Frankel (2011), a deep, liquid, and open financial market is a primary condition for a national currency becoming an international currency. China has made striking progress in establishing relatively structured financial markets, including stock markets, bond markets, and money markets. But China's financial markets are still small and shallow compared with those in developed countries and even with those in some emerging economies. China needs to allow more foreign institutional investors to participate in domestic financial markets to improve their efficiency and effectiveness. Equally important, establishment of financial risk management mechanisms and strengthening the rule of law are crucial for China regulating its relatively immature financial markets effectively.

Additionally, participation in China's financial markets needs to be diversified (Ito 2011). Currently, the majority of investors in China's bond markets are domestic institutions. Individuals and foreign institutional investors are excluded or constrained by investment quotas. Diversity of investors will improve efficiency and liquidity of financial markets. Thus, China needs to remove gradually the constraints on participants in its financial markets. In addition, along with expansion of RMB use beyond

⁸ Qianhai is a district of Shenzhen, Guangdong province. Under the Overall Development Plan of Qianhai as Shenzhen and Hong Kong Modern Service Area approved by China's State Council, one of the aims is to promote the internationalisation of the RMB by establishing closer linkages between Shenzhen and Hong Kong.

Figure 8
The renminbi's (RMB's) nominal exchange rate and real effective exchange rate (REER), 1994–2012



Source: People's Bank of China and Bank for International Settlements.

the border, for other investors who hold RMB assets, hedging RMB exchange rate risks is necessary to facilitate RMB internationalisation. In September 2012, the first offshore RMB currency futures product was launched in the Hong Kong Exchanges and Clearing Limited. Based on Hong Kong's experience, onshore RMB currency futures markets need to be established in order to deepen China's financial markets. This would attract significantly more domestic and foreign firms to settle trade and conduct financial transactions in the RMB.

RMB exchange rate flexibility

A market-driven RMB exchange rate regime would provide foreign investors transparency and confidence in holding and using the RMB.⁹ In turn, a flexible exchange rate would raise the RMB's status in global financial markets. China began exchange rate regime reform in 1995 and reaffirmed it in 2010, with the aim of achieving a freely floating exchange rate. The RMB has been appreciated considerably in nominal and

real terms since 2005 when the PBoC lifted controls on the RMB exchange rate (see Figure 8). This revaluation process was interrupted by the GFC until mid-2010. In nominal terms, the RMB has appreciated at 3–4 per cent annually since 2005. The real effective exchange rate of the RMB has also increased considerably, by 29 per cent up to 2012, although it declined in 2009 (see Figure 8). What's more, the PBoC has imposed a trading band on the interbank foreign exchange market since 2005. This trading band was widened to ± 0.5 per cent in 2008 and to ± 1 per cent in 2012, when China sought to loosen further the controls on the exchange rate.

The IMF reports on member countries' exchange rate arrangements on the basis of the degree of flexibility and formal or informal commitments to a given exchange rate path. The assessment is based on member countries' *de facto* arrangements rather than officially announced arrangements. Thus, this classification system provides a relatively objective reference for assessing a country's exchange rate

9 The US dollar became the dominant international currency under the Bretton Woods System in which the US dollar was pegged to gold and other currencies were pegged to the US dollar. This special fixed exchange rate regime was adopted to stabilise the world economy after World War II. However, it is widely believed that an international currency should have high flexibility in its exchange rate regime.

regime. According to the IMF's latest report in 2009, the RMB exchange rate regime was placed in the category of 'Crawling peg' as compared with the 2004 categorisation of 'other conventional fixed peg arrangement', which means that the RMB exchange rate regime is still far from being a freely floating regime. Without RMB exchange rate liberalisation, the RMB will not become an international currency like the US dollar.

Convertibility of the RMB

The RMB is convertible under the current account. But full convertibility of the RMB is needed if China is to internationalise the RMB. The next step is gradually moving to full convertibility in the capital account. The recent growth in use of the RMB in cross-border trade settlements has created greater demand for full convertibility under China's capital account because holders of offshore RMB assets are looking for investment opportunities on the mainland. It would be more convenient for them to invest in Mainland China if the RMB were fully convertible.

Full RMB convertibility cannot be achieved in the short term. The PBoC has stated that it will gradually meet the target of full RMB convertibility. However, the PBoC has employed other tools to assist foreign investors obtain RMB assets, while the RMB is not fully convertible under the capital account. In July 2012, direct transactions between the RMB and the Japanese yen began simultaneously in Shanghai and Tokyo. This measure will reduce exchange rate risks and transaction costs and encourage use of the RMB in bilateral trade and financial transactions between China and Japan. But in the medium and long term, the RMB should be fully convertible in order to become an international currency.

Capital account liberalisation

Controls on capital flows across borders impair the functions an international currency plays. However, capital account liberalisation is the

most challenging task for China in reforming its financial system and RMB internationalisation. Capital account opening not only tightly links with other parts of China's financial system reform, like RMB exchange rate regime reform, interest rate liberalisation, and RMB internationalisation, but is also closely related to the adjustment of China's economic development model. This is why China has repeatedly emphasised that capital account liberalisation would be a long-term process.

It should be noted that capital account liberalisation does not necessarily mean complete capital account openness. China could liberalise its capital account step by step while maintaining controls on short-term capital flows. Excessive fluctuations in short-term capital flows could undermine the country's financial system stability. Historical experiences such as the Asian financial crisis of 1997 indicate that countries that do not have a well-designed capital account liberalisation strategy are vulnerable in periods of financial crisis. Following the GFC, the IMF sharply lowered its enthusiasm for liberalising the capital account, stating that '(capital account) liberalization needs to be well planned, timed, and sequenced in order to ensure that its benefits outweigh the costs. Countries with extensive and long-standing measures to limit capital flows are likely to benefit from further liberalization in an orderly manner. There is, however, no presumption that full liberalization is an appropriate goal for all countries at all times'.¹⁰

Therefore, China should open its capital account gradually by liberalising medium and long-term RMB assets before short-term RMB assets (Ito 2011; Yu 2012). RMB internationalisation should be a parallel process along with China's capital account liberalisation (Yu 2012).

Roadmap of RMB internationalisation

Historical experiences indicate that there is no precedent for currency internationalisation that could guide China. As Frankel (2011) points

¹⁰ See IMF (2010).

Table 6
Roadmap of RMB internationalisation

Roadmap for the RMB becoming an international currency	From the perspective of functions of the RMB as an international currency	From the perspective of scope of RMB use in the global financial system
Stage one	The RMB as a settlement currency in trade and financial transactions	RMB use in cross-border trade and financial transactions
Stage two	The RMB as a denomination currency in trade and financial transactions	RMB regionalisation
Stage three	The RMB as an international reserve currency	RMB globalisation

Source: Author.

RMB = renminbi; SAR = Special Administrative Region.

out, China could pursue an unorthodox strategy because there is no good precedent for China to refer to. Moreover, it appears that an active strategy in currency internationalization might not be able to create an international currency, as Japanese strategy in yen internationalization in the 1980s. But this does not necessarily suggest that RMB internationalisation does not need a well-designed roadmap. Such a roadmap could provide Chinese policymakers with a long-term framework to direct the RMB towards becoming an international currency. This roadmap should be adjusted in accordance with changes in domestic and international economic circumstances.

As far as a roadmap is concerned, it seems that the PBoC is insisting on following the principle of 'proactive, gradualism and controllable', as they did in China's capital account liberalisation.¹¹ From a broad perspective, the internationalisation of the RMB should be an integral part of China's financial system reform, which should be a systematic and long-term task covering capital account liberalisation, exchange rate regime reform, and financial market reform.

We differ from previous studies in that we draw a long-term roadmap for RMB internationalisation from two perspectives: the functions of the RMB as an international currency and the scope of RMB use in the global financial system (see Table 6).

From the perspective of functions of the RMB as an international currency

Stage one: the RMB as a settlement currency in trade and financial transactions. Making the RMB a settlement currency in trade and financial transactions is what China has been mainly working on. The RMB is fully convertible in the current account. So expansion of RMB use as a settlement currency in trade is the easiest way for China to begin RMB internationalisation. RMB use in financial transactions has increased because of rapid development of offshore RMB markets such as Hong Kong SAR. This stage should take only a few years if the current trend in RMB use in cross-border trade and financial transactions persists.

Stage two: the RMB as a denomination currency in trade and financial transactions. According to Yu (2012), for an international currency, its role as an invoicing currency is more fundamental than that of a settlement currency. Moreover, denomination in financial transactions is more critical than invoicing in trade because the value of financial transactions is much greater than the value of foreign trade (Park 2010). Currently, most of China's cross-border trade settled in RMB is invoiced in US dollars or euros. RMB-denominated financial transactions are very limited. For the RMB to become an international currency,

¹¹ See Xiaochuan Zhou (2009).

China needs to motivate more foreign trade to be invoiced in the RMB and widen investment channels for foreign investors to invest the RMB-denominated assets. Therefore, China needs to deepen and open domestic financial markets to foreign investors and widen RMB recycling channels. The length of this stage will largely depend on the process of China's financial system reform, especially China's financial account liberalisation.

Stage three: the RMB as an international reserve currency. Its role as an international reserve currency is the most fundamental role for an international currency. The ultimate goal of RMB internationalisation is that the RMB becomes an international reserve currency, like the US dollar and the euro. Although some central banks have included RMB assets in their foreign reserves, the share of the RMB in global foreign exchange reserves is extremely limited (see Figure 7). Therefore, it may take decades for China to transform the RMB into an international reserve currency, even if China's economy continues to grow and its financial system reform moves ahead.

From the perspective of the scope of RMB use in the global financial system

Stage one: RMB use in cross-border trade and financial transactions. China has achieved significant progress in increasing RMB use in cross-border trade settlement since 2009. According to the PBoC, in 2012, the amount of cross-border trade settlements in RMB climbed to 2.94 trillion yuan, accounting for 8.4 per cent of China's total trade. However, China needs to create more incentives for domestic and international firms to use the RMB in cross-border trade. This is a necessary and important step for internationalising the RMB, when China's capital account is not fully open and the RMB is not a fully convertible currency. Furthermore, although China has taken some measures to promote offshore RMB recycling, RMB use in financial transactions is very limited compared with RMB use in trade settlement. Only when the RMB becomes a major settlement and invoicing currency in China's foreign trade

and financial transactions could it become a regional currency like the Japanese yen in Asia. Additionally, China should gradually open its financial markets to foreign financial institutions to improve their efficiency and depth. Meanwhile, at this stage, China should encourage Chinese financial institutions to go abroad to provide RMB business services overseas.

Stage two: RMB regionalisation. The next stage for RMB internationalisation is regionalising the RMB within Asia. The PBoC has stressed that RMB internationalisation will be determined by domestic reforms and market forces. But strategically, regional cooperation with Asian countries, in particular with Japan, Korea, and the ASEAN countries, would facilitate the regionalisation of the RMB. With tightening ties with East Asian countries through supply chains and intraregional trade and investment, China's RMB has become a dominant reference currency in East Asia (Subramanian and Kessler 2012), but more needs to be done.

China has reached 19 BCSAs with other economies (see Table 3). However, more currency swap agreements with Asian countries are needed to promote RMB regionalisation. This would assist other Asian central banks in obtaining RMB to finance local firms to do business in the RMB with China. The PBoC signed the New Bilateral Local Currency Settlement Agreement with the Central Bank of Russian Federation in June 2011. Under this agreement, bilateral trade between the two countries can be settled in a freely convertible currency, the RMB, or the Russian ruble. China has discussed RMB use as a settlement currency with ASEAN and other countries. ASEAN countries and other East Asian countries are China's main trade partners. Obviously, using local currencies in bilateral trade with more Asian countries would be helpful in promoting RMB use in Asia, thereby raising the RMB's status as a regional currency. In addition, China has been active in Asian FTA development, signing 12 free trade agreements (FTAs) with other economies. China could encourage use of local currencies including the RMB in bilateral trade in future FTA

negotiations, such as the China–Japan–Korea trilateral FTA negotiation.

In addition to measures promoting RMB use with Asian countries, China should develop more offshore RMB markets to promote RMB internationalisation in this stage. Currently, Hong Kong SAR is the premier offshore RMB market. Other Asian cities have shown interest in doing RMB business, such as Singapore, Taipei, and Tokyo. In the long term, more offshore RMB markets in Asia would improve the convenience of RMB use, thereby attracting more foreign investors to do trade and financial transactions in the RMB. In this stage, the RMB could complement use of the US dollar, the euro, and Japanese yen in Asia, such as being a settlement and denomination currency in trade and financial transactions, as an anchor currency for Asian currencies, and as a regional reserve currency.

Stage three: RMB globalisation. The aim in this stage would be to gain international status like the US dollar and the euro. But it will likely take many years to achieve this goal. Whether China can reach this stage depends not only on China's will to do so, but also on the global economic and financial situation. It should be noted that becoming an international currency does not mean that the RMB will replace the US dollar or the euro as the dominant international currency. A multipolar international financial system including the RMB, the dollar, and the euro could develop.

Conclusions

Since 2009, China has shown explicit, in some aspects aggressive, intention to internationalise

the RMB. Whether or not it is internationalising the RMB and the pace of RMB internationalisation, much depends on China's evaluation of the benefits and costs. In the long term, however, internationalisation of the RMB is inevitable, given China's increasing prominence in the global economy and trade network. A possible roadmap for RMB internationalisation is to begin from RMB settlement in cross-border trade, followed by regionalisation of the RMB, and finally globalisation. With respect to achieving the functions of an international currency, the RMB should first become a settlement currency, then a denomination currency, and lastly, a reserve currency.

Given China's relatively immature financial markets, the absence of necessary regulations and laws, as well as its underdeveloped risk management capacity, gradualism may well be the optimal strategy for China to follow in internationalising the RMB. Actions to achieve RMB internationalisation should be parallel with China's ongoing financial system reform. Liberalisation of the capital account, exchange rate regime reform, and establishment of liquid financial markets are long-term tasks. Therefore, internationalisation of the RMB should be a natural outcome of China's economic growth and financial system reform. Any unrealistic or aggressive strategy in RMB internationalisation may hurt China's economy, and even the world economy. Given the background of deepening East Asian economic and financial integration and regional coordination in exchange rate policies and other financial policies, especially with East Asian countries, it is important for China to create a win–win situation in the process of RMB internationalisation.

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