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The RMB's Long Road to Internationalization

Nargiza Salidjanova, Policy Analyst

China is by all measures a global economic power: it is the world's largest exporter and second-largest importer of goods and services, the largest holder of foreign exchange reserves, and the second-largest economy. Yet China's currency, the renminbi (RMB), plays a much smaller role in global trade and investment than China's global economic standing would suggest. The RMB's international usage has been marginal, owing in part to China's mostly closed capital account and underdeveloped domestic capital market.

Despite China's powerful position in the global economy, the RMB comprises less than 2 percent of international currency transactions. Instead, most of China's trade and investment uses U.S. dollars, leaving the country vulnerable to exchange rate fluctuations and uncertainty. In a 2010 essay, Hu Xiaolian, deputy governor of the People's Bank of China (PBoC), contended that "wider use of the [RMB] in foreign trade and investment can help importers and exporters control costs and reduce exchange-rate risks."¹

This problem is further exacerbated by China's deliberate undervaluation of its currency, a policy China enforces by restricting the convertibility of the RMB in international markets. China's monetary policies have also resulted in massive foreign exchange reserves (just shy of \$4 trillion by the first quarter of 2014), two-thirds of which are estimated to be invested in U.S. Treasury securities and other dollar-denominated debt.¹

The U.S. dollar is the premier reserve currency, an advantage that confers important benefits to the United States. U.S. borrowers, both

Key Points

- Chinese authorities have used Hong Kong's position as a global financial center to promote the use of the RMB abroad. Hong Kong is the oldest and largest market for offshore RMB transactions, and will remain so despite the emergence of several other offshore contenders.
- To date, RMB internationalization efforts have involved three main channels: offshore RMB deposit accounts and bonds, use of the RMB for cross-border trade settlement, and establishment of RMB swap lines between the People's Bank of China and other central banks.
- Despite growth in onshore and offshore use, the RMB cannot become a true international currency until Chinese authorities liberalize China's capital account, allowing for unrestrained movement of financial flows.

¹ For further discussion of this issue, see Nargiza Salidjanova, "China's Foreign Exchange Reserves and Holdings of U.S. Securities," *USCC Economic Issue Brief No. 2*, March 21, 2014.

http://origin.www.uscc.gov/sites/default/files/Research/USCC%20Economic%20Issue%20Brief_China%27s%20FX%20Reserves%20and%20Treasury%20Holdings.pdf.

government and private, may engage in transactions without exchanging their currency—lowering interest rates for the U.S. government and individuals, and ultimately reducing the cost of buying imports.ⁱⁱ The advantage to the United States is in excess of \$100 billion per year.² In addition, \$1.3 trillion in cash, mostly held abroad and used for larger transactions, constitutes an interest-free loan to the U.S. government.³

There are signs of change. The RMB's presence in international trade settlement has grown rapidly—albeit from a very low base—due to several factors, among them: government-sanctioned experiments with onshore and offshore use of the RMB through currency swaps, the Qualified Foreign Institutional Investor (QFII) and RMB Qualified Foreign Institutional Investor (RQFII) programs,ⁱⁱⁱ the growth of the offshore RMB bond^{iv} market, and the rise of offshore RMB centers. All are important—if small—steps toward a more international RMB. Despite these developments, however, the RMB cannot become a true international currency until China relaxes its strict controls on capital transactions.

This paper explores this first phase of RMB internationalization by examining (1) the creation of an offshore RMB market, (2) the use of the RMB for cross-border trade settlement, and (3) the establishment of swap lines between the PBoC—China's central bank—and other central banks. This paper concludes with an assessment of China's progress and prospects for the future.

1. Offshore RMB Market

It will take years to transform the RMB into an international—or at least regional—reserve currency that legitimately challenges the U.S. dollar's dominance, but China is slowly introducing policy changes and reforms to move in that direction. As part of a push to internationalize its currency, China is developing an offshore market for the RMB as a precursor to allowing global firms, banks, and asset managers access to the country's domestic market.

Chinese authorities took the first step toward RMB internationalization in January 2004, permitting Hong Kong banks to make loans and offer deposits in RMB to Hong Kong residents and foreign businesses.^v Figure 1 shows the growth of RMB deposits in Hong Kong following this procedural modification. The surge in volume has been dramatic: RMB deposits increased by a staggering 500 percent between July 2010 and November 2011, reaching RMB 945 billion (\$153 billion) by March 2014. The phenomenal increase in mid-2010 followed Chinese government's expansion of the RMB cross-border RMB trade settlement (discussed in section 2 of this paper).

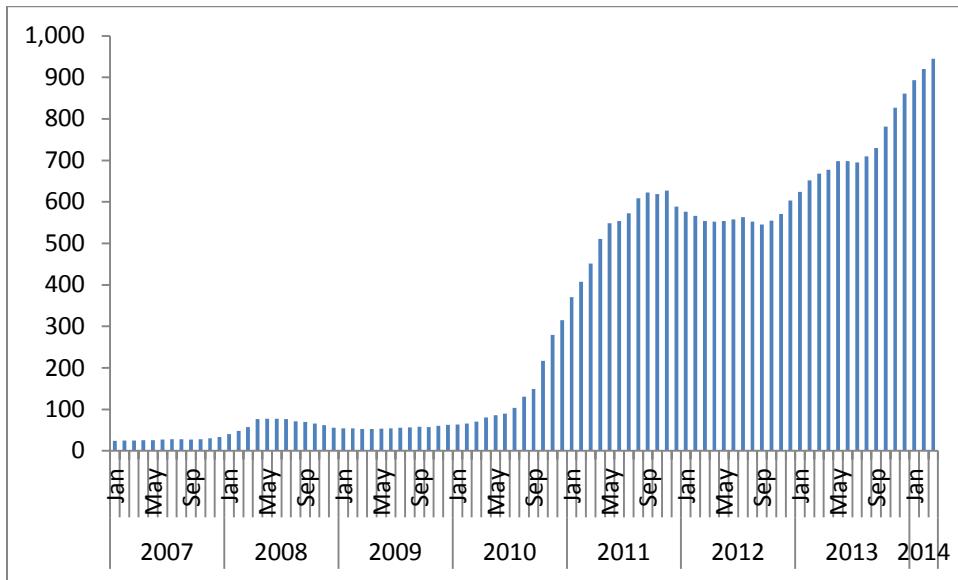
ⁱⁱ According to the International Monetary Fund (IMF), U.S. dollars in 2013 made up 61 percent of allocated global official foreign exchange reserves, followed by the euro (24 percent), pound sterling (4 percent), and Japanese yen (3.9 percent). Over the past decade, the U.S. dollar's share has declined by a few percentage points (for purposes of comparison, it was 71 percent in 1999), but the difference was captured by the euro; the shares of other currencies have held relatively steady. International Monetary Fund, "Currency Compositions of Official Foreign Exchange Reserves (COFER)," March 31, 2014. <http://www.imf.org/external/np/sta/cofer/eng/cofer.pdf>.

ⁱⁱⁱ The Qualified Foreign Institutional Investor (QFII) program allows select institutional foreign investors to invest in Mainland stock exchanges. The RMB Qualified Foreign Institutional Investor (RQFII) program allows repatriation of offshore RMB back to China. The two programs are discussed in greater detail later in the section.

^{iv} Offshore RMB bonds are bonds issued outside of China but denominated in RMB.

^v Hong Kong residents are subject to a daily conversion limit of RMB 20,000 (around \$3,200). As of August 2012, nonresidents have been allowed to purchase unlimited offshore RMB. Hong Kong Monetary Authority, "Expansion of Renminbi Business," November 1, 2005. <http://www.hkma.gov.hk/eng/key-information/press-releases/2005/20051101-3.shtml>; Hong Kong Monetary Authority, "Hong Kong Banks to Provide RMB Services to Non-Hong Kong Residents," July 25, 2012. <http://www.hkma.gov.hk/eng/key-information/press-releases/2012/20120725-3.shtml>.

Figure 1: RMB Deposits in Hong Kong
(RMB billions)



Source: Hong Kong Monetary Authority.

Hong Kong was the first platform for RMB internationalization, but in recent years other global financial hubs—Singapore, Taipei, London, and Luxembourg—have come on board as well. Several others, including Frankfurt and San Francisco, are reportedly at different stages of preparation to compete for global offshore RMB business.⁴ Even among these major economic players, Hong Kong remains the biggest and most important offshore market for RMB transactions (see Table 1). In 2012, Hong Kong's banks handled around 80 percent of China's overseas RMB trade transactions.⁵ In April 2013, the government in Hong Kong loosened restrictions on interbank trading of the RMB, a move intended to enhance Hong Kong's status as an offshore RMB trading center, a segment that is witnessing competition from other financial centers.⁶

Table 1: Select Offshore RMB Centers
(in billions)

	Hong Kong	Singapore	Taiwan	London	Luxembourg
RMB deposits	RMB 945	RMB 172	RMB 215	RMB 15	RMB 64
RQFII quota	RMB 270	RMB 50	RMB 100	RMB 80	n/a
Currency swap with China	RMB 400	RMB 300	n/a	RMB 200	RMB 350*
Average trading volume of RMB foreign exchange (April 2013)	\$46.5	\$23.7	\$2.6	\$24.2	\$0.4

Note: All figures based on latest data available as of January 2014, except as noted.

* Luxembourg benefits from the currency swap agreement between the PBoC and the European Central Bank.

Source: PwC Luxembourg, "Where Do You Renminbi? A Comparative Study of Cross-Border RMB Centers," 2014. p. 5. <http://www.pwc.lu/en/china/docs/pwc-where-do-you-renminbi.pdf>.

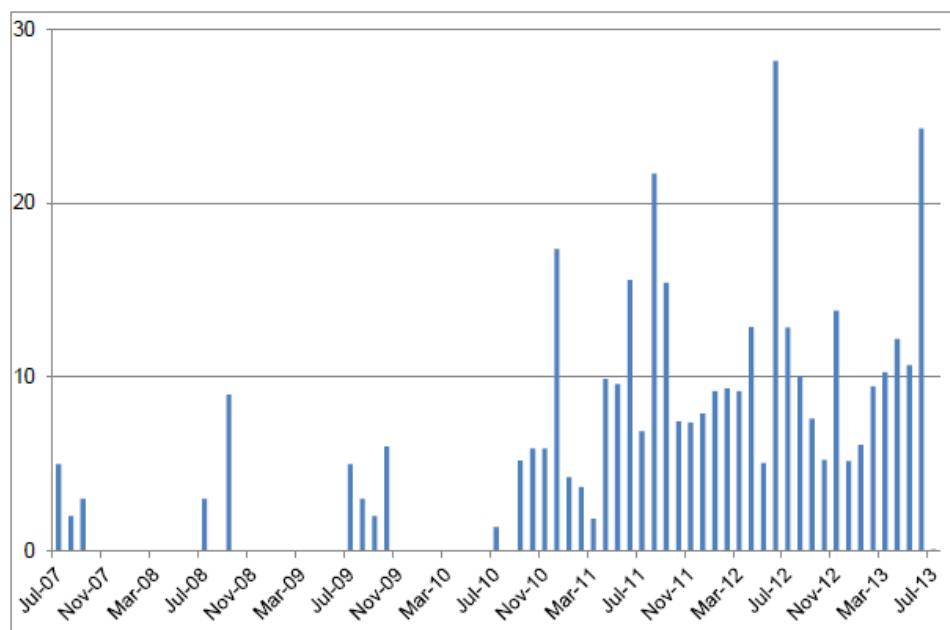
Offshore RMB Bonds

The establishment of an offshore RMB bond market is another important avenue for increasing the RMB's international use. As with other stages of RMB internationalization, Hong Kong retains its prime importance. In 2007, China Development Bank issued Hong

Kong's first RMB-denominated bonds (called "dim sum bonds"), but the market did not really take off until 2010 when Chinese regulators allowed foreign companies to open RMB bank accounts in Hong Kong and exchange currency for any purpose. They also permitted Hong Kong banks to create investment products denominated in the Chinese currency. Regulators also eliminated restrictions on both the type of corporation that can be granted RMB loans and the type of loans that can be extended.⁷

On August 17, 2010, the PBoC said that to "encourage cross-border [RMB] trade settlement" and "broaden investment channels for [RMB] to flow back [to China]," it was launching a pilot program to allow some RMB held offshore to be invested in China's RMB 19.5 trillion (\$2.87 trillion) interbank bond market, where most government and corporate debt trades.⁸ Prior to the announcement, foreign financial institutions—including central banks and overseas lenders—were only able to invest the RMB they already held onshore.⁹ The PBoC's program allowed companies outside China—companies that are receiving payments in RMB but have few places to hold the currency—to direct the funds back into the local bond market.¹⁰ Taking advantage of the new rules, McDonald's became the first foreign nonfinancial company to sell RMB-denominated bonds (though the amount was quite small: RMB 200 million, or \$29 million).¹¹ Since the initial opening, the offshore RMB bond market has been growing by leaps and bounds (see Figure 2).

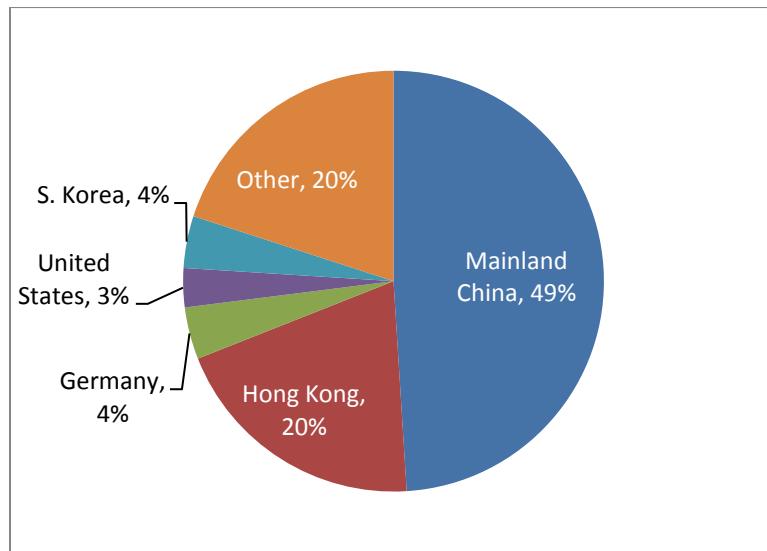
Figure 2: Monthly Issuance of Dim Sum Bonds¹²
(RMB billions)



Source: Bloomberg.

Because dim sum bonds are covered by Hong Kong laws, they make an attractive investment prospect to investors worried about mainland China's immature financial system and lax adherence to the rule of law. However, an interesting aspect of the offshore RMB bond market is that it is dominated by mainland Chinese issuers (see Figure 3), primarily because offshore interest rates are cheaper than on the Mainland, often by a few percentage points. Thus, mainland Chinese companies borrow offshore to finance operations on the Mainland, leading to increased cross-border trade.¹³

Figure 3: Offshore RMB Bonds, by Country of Issuer, 2010-2014
 (total \$56.6 billion)



Source: Asia Securities Industry & Financial Markets Association (ASIFMA), *RMB Roadmap*, May 2014, p. 17.
<http://www.asifma.org/uploadedfiles/resources/rmb%20roadmap.pdf>.

The QFII and RQFII Programs

Even before China embarked on the current RMB internationalization agenda, the government started creating programs to allow foreign investors access to Chinese domestic securities markets. Launched in 2002, the Qualified Foreign Institutional Investor (QFII) program allows licensed foreign investors to trade RMB-denominated securities on China's mainland stock exchanges, Shanghai and Shenzhen, by converting foreign currency to RMB within a set quota obtained from authorities; such stocks are known as "A-shares." Prior to the creation of the QFII program, the domestic stock exchanges were closed to foreign investors due to China's tight capital controls. Initially, the total investment quota available for the QFII program was \$10 billion, but it has increased several times as regulators review and approve new applications. At the end of April 2014, there were 261 QFII license holders with an aggregate investment of \$54.4 billion. It is worth noting that major exchanges elsewhere do not have quotas to limit foreign investors.

Whereas the QFII program allows investors to bring U.S. dollars onshore and exchange them into RMB, the RMB Qualified Foreign Institutional Investor (RQFII) program, launched in late 2011, allows select institutions to raise RMB offshore as well.¹⁴ As of the end of April 2014, there were 68 RQFII license holders with an aggregate investment quota of RMB 215.6 billion (\$35 billion).

Both QFII and RQFII require investors to apply to the China Securities Regulatory Commission (CSRC) for an access license, and to receive a quota from the State Administration of Foreign Exchange (SAFE).^{vi} Table 2 highlights the two programs' basic features.

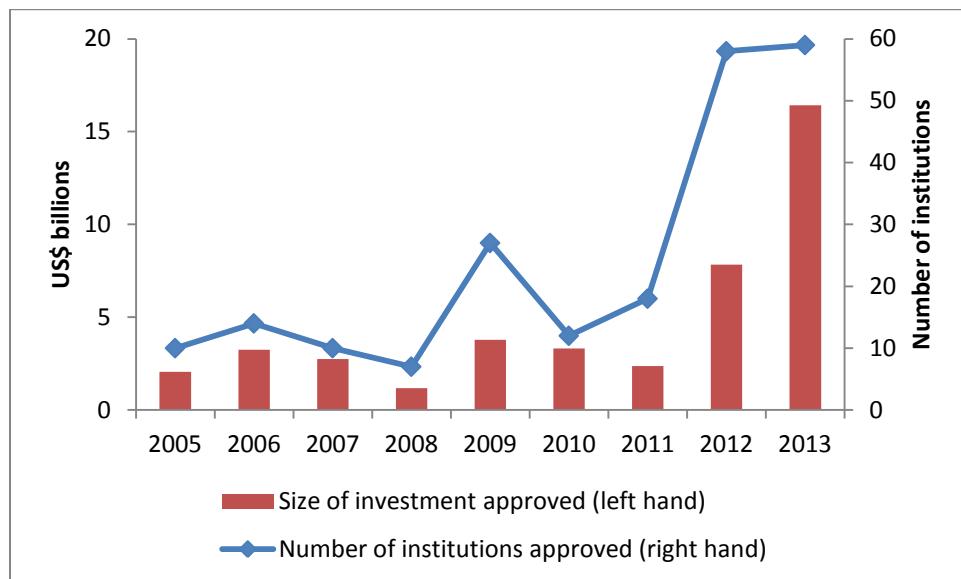
Table 2: Key Features of QFII and RQFII Frameworks

	QFII	RQFII
Date created	2002	2011
Regulator	CSRC, SAFE	CSRS, SAFE, PBoC
Eligible applicants	Commercial banks, securities companies, asset management companies, insurance companies, and other institutions that meet certain requirements	Financial institutions registered and mainly operated in Hong Kong
Currency	U.S. dollars	RMB
Investment scope	Stocks, bonds, funds, warrants, Initial Public Offerings (IPOs), bond issuance, and other products approved by CSRC	
Investment limitations	Cannot hold more than 10 percent of the total outstanding shares in a single A-share listed company; the aggregate of all foreign investors in a single A-share company cannot be more than 30 percent.	

At first glance, the growing volume of investment under QFII and RQFII seems to suggest a loosening of China's capital account. In 2013, the QFII program saw its largest-ever increases in investment approvals (see Figure 4). In addition to individual approvals, the quota for total investment under the QFII program increased from \$80 billion to \$150 billion. However, raising the quota did not have a significant impact on investment growth: With total cumulative funding approvals of \$43 billion over 11 years, even the original \$80 billion quota has yet to be filled. Nonetheless, the policy had its intended effect of generating interest among foreign investors, as evidenced by the fact that several financial services companies quickly applied to increase their investment quota.

^{vi} The China Securities Regulatory Commission grants QFII licenses and market access to foreign investors, while the State Administration of Foreign Exchange approves quotas for individual QFII funds. Josh Noble, "China Grants HSBC Renminbi Investment Licence," *Financial Times*, July 26, 2013. <http://www.ft.com/intl/cms/s/0/b67e00b6-f50d-11e2-94e9-00144feabdc0.html#axzz3BbdkCywE>.

Figure 4: Increase in Total Investment Quota under the QFII Program, through July 2005-2013



Source: China State Administration of Foreign Exchange, via CEIC Database.

The RQFII program also expanded in 2013. The CSRC eliminated rules governing how quotas could be used, so that fund managers could invest in either China's equity or domestic bond markets without needing separate licenses.¹⁵ The CSRC also allowed units of Chinese banks and insurers in Hong Kong, as well as other financial institutions based in the city, to apply for RQFII quotas. Previously, only the Hong Kong units of Chinese fund management and securities companies were allowed to invest in mainland China via the program.¹⁶ In June 2013, the RQFII program extended beyond Hong Kong to other offshore RMB trading centers—much to the dismay of mainland Chinese fund managers who hoped to monopolize this new market.¹⁷ Now, investors from select international financial centers are eligible to apply within the limits of the quota assigned to each center: Hong Kong (RMB 270 billion), London (RMB 80 billion), Singapore (RMB 50 billion), and Paris (RMB 80 billion). Taiwan's quota has been set for RMB 100 billion; however, in Taiwan no investors received approval because the government there has yet to establish a regulatory definition of local fund eligibility.

Shanghai-Hong Kong Stock Exchange Connect Pilot Program

In April 2014, the CSRC and Hong Kong's Securities and Futures Commission jointly announced their approval, in principle, for the development of a pilot program that will enable eligible investors in Hong Kong and mainland China to trade eligible shares listed on each other's markets through local securities firms and brokers. The Shanghai-Hong Kong Stock Connect will operate through the Shanghai Stock Exchange, the Stock Exchange of Hong Kong, the China Securities Depository and Clearing Corporation, and the Hong Kong Securities Clearing Company Limited. The initial amounts involved are quite small: Hong Kong investors will be limited to an aggregate quota of RMB 300 billion (around \$48 billion), with a daily trading cap of RMB 13 billion (around \$2 billion). Mainland investors will be limited to an aggregate quota of RMB 250 billion (around \$40 billion) and a daily quota of RMB 10.5 billion (about \$1.7 billion).¹⁸ The Stock Connect is expected to become operational in October 2014.

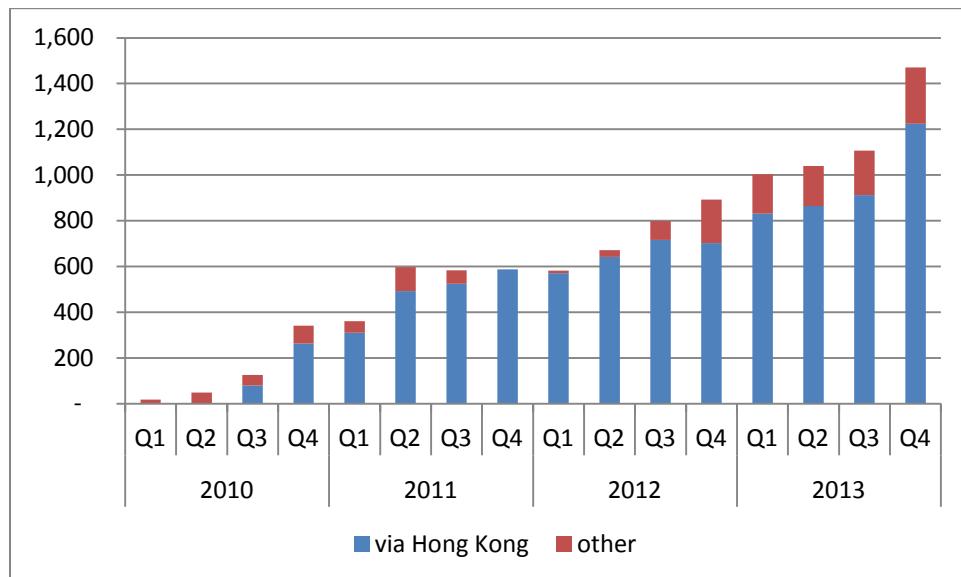
The Shanghai-Hong Kong stock exchange link program is meant to further open up China's capital market, thus raising the prominence of the RMB. Chinese Premier Li Keqiang indicated that if the model proves successful, a link may be established between Hong Kong and Shenzhen.¹⁹ However, as the pilot is in the early stages, its future impact remains unknown.

2. RMB for Cross-Border Trade Settlement

Given China's position as the preeminent global exporter, the Chinese government is intensely focused on increasing the country's share of trade settled in RMB. In 2008, then-premier Wen Jiabao announced a pilot program for RMB cross-border settlement (using the RMB instead of the U.S. dollar when trading) with Hong Kong, Macau, and Association of Southeast Asian Nations (ASEAN) countries. Initially, only companies in Shanghai and the southern province of Guangdong could participate in the program, but in June 2010 China's State Council approved a plan to expand the RMB trade settlement program to 20 provinces and municipalities;²⁰ the program expanded nationwide in 2011.

By the end of 2013, the value of China's cross-border trade conducted in RMB reached RMB 4.6 trillion, up 58 percent from RMB 2.9 trillion in 2012 (see Figure 5). As with offshore bonds, Hong Kong is the key market for cross-border trade settlement in RMB, responsible for RMB 3.8 trillion in 2013, up 46 percent from RMB 2.6 trillion in 2012 (see Figure 5).

Figure 5: RMB Cross-Border Trade Settlement
(RMB billions)



Source: PBoC, via CEIC Database; Hong Kong Monetary Authority.

Global use of the RMB for trade settlement is limited, but has been rising steadily. By June 2013, the volume of RMB used to settle trade was 174 percent higher than in January 2012, when the policy was first introduced.²¹ The Society for Worldwide Interbank Financial Telecommunication (SWIFT) provides an annual ranking of world economies according to value of payments made in respective currencies; by March 2014, the RMB rose to seventh place—behind the dollar, euro, pound, yen, and Australian and Canadian dollars—up from 13th place in January 2013.²²

SWIFT's figures, however, also demonstrate how far the RMB still has to go. In March 2014, although the total share of RMB payments for global trade settlement had risen to 1.62 percent (up from 0.63 percent in January 2013), the shares of the U.S. dollar and the euro—the top two currencies—were 40.19 percent and 31.78 percent, respectively.²³ For settlement of China's trade, the picture looks a little more optimistic, with use of the RMB increasing from 5.5 percent in 2011 to 11.7 percent in 2013, according the Bank of China.²⁴

3. Swap Lines between the PBoC and Other Central Banks

The Chinese government is also taking steps to promote use of the RMB through bilateral agreements with its trade partners. China currently has 25 currency swap lines^{vii} valued at RMB 2.7 trillion (see Table 3). At first, China's partners were mostly emerging economies (such as Argentina and Indonesia) with natural resources; no partnerships existed with major economic powers like the United States or the European Union countries. That changed in 2013 when China established two important swap agreements with major trade partners. First, the PBoC in June 2013 established a currency swap line with the Bank of England, Britain's central bank. The initial agreement has a three-year duration and a maximum value of RMB 200 billion (\$32.6 billion).²⁵ Then, in October 2013, China agreed to swap euros and RMB with the European Central Bank—ultimately cementing China's second-largest swap deal (after the November 2011 agreement with Hong Kong). The swap agreement has a maximum size of RMB 350 billion (\$60.8 billion) and is valid for three years.²⁶

Table 3: China's Bilateral Swap Lines
(RMB billions)

Albania	2	Mongolia	10
Argentina	70	New Zealand	25
Australia	200	Pakistan	10
Belarus	20	Singapore	300
Brazil	190	South Korea	360
European Central Bank	350	Switzerland	150
Hong Kong	400	Thailand	70
Hungary	10	Turkey	10
Iceland	3.5	UK	200
Indonesia	100	Ukraine	15
Japan	18	United Arab Emirates	35
Kazakhstan	7	Uzbekistan	0.7
Malaysia	180	Total	2,736.2

Source: PBoC.

Although the amounts involved in China's 25 swap lines are small, that factor may change; the size of a swap line is easy to scale up once an agreement is in place. Symbolic

^{vii} Under a swap agreement, central banks agree to exchange each other's currency and can then lend the money to domestic banks to improve liquidity. See the Federal Reserve Bank of New York, "The Basics of Foreign Trade and Exchange." <http://www.ny.frb.org/education/fx/foreign.html>.

significance aside, the economic effect could be sizable if even a fraction of China's transactions that are currently settled in dollars switch to the RMB.

Despite the RMB's lack of convertibility, some central banks have started making the currency part of their reserve portfolios, mostly as a means of diversifying their assets. Malaysia pioneered this trend in 2010, and others—including Indonesia, Korea, and Australia—followed suit.²⁷ The values remain small, however. According to the PBoC, of the RMB 600 billion (roughly \$95 billion) approved for foreign investment in China's interbank bond market, about half—or less than 1 percent of global foreign exchange reserves—was allocated to foreign central banks and sovereign wealth funds.²⁸ If China's economy and influence continue to grow, foreign central banks' holdings of RMB are likely to grow, too—in turn increasing the RMB's prominence in the global marketplace.

Is the RMB Ready to Challenge the U.S. Dollar?

Ever since PBoC Governor Zhou Xiaochuan in 2009 called for replacing the existing international reserve currency (the U.S. dollar) with a new global system based on special drawing rights,²⁹ RMB's internationalization—and what it could mean for the established economic order—has captured the world's attention. China's rise has been surrounded by media hype, drawing statements by analysts and politicians and ultimately creating the impression that the RMB's upsurge as a global reserve currency is inevitable (or has already happened),³⁰ but reality presents a more nuanced view. The Chinese government's policies primarily have focused on increasing the role of the RMB in trade settlement, but so far have held back on opening the capital account or allowing free convertibility (despite the increased flexibility, as evidenced by the widening of the RMB trading band).³¹

Such a cautious approach matters, because the challenge is formidable. Very few countries have been able to transform their currency into a global reserve currency. It is possible to become a global financial center without a market-based exchange rate (for instance, the Hong Kong dollar exchange rate has been fixed against the U.S. dollar for decades). It is also possible to be a regional economic powerhouse without corresponding emergence of the currency as an important reserve currency (as is the case with Japan). But achieving a reserve currency status requires a fully convertible capital account, broad acceptance of the currency for trade and financial transactions, and a floating exchange rate.³²

The development of sophisticated financial markets and trusted public institutions is a key determinant of a currency's international status—and these are areas in which China is lacking.³³ In practical terms, the RMB's use for trade settlement will continue to increase. How far the RMB will spread beyond China's immediate vicinity (and therefore into a position to challenge the U.S. dollar) remains to be seen, although it is unlikely to happen soon. As this paper has shown, despite rapid growth, the RMB's international use remains marginal.

China's immature financial system is not entirely to blame for the RMB's slow progress. The country's RMB-denominated offerings must be met by international demand, and that demand is currently limited, though growing. Dim sum bonds, for example, do not have credit ratings—a factor that obscures their risk and limits demand. The decision to use the RMB for trade is sometimes predicated on political rather than economic considerations. For example, in June 2014, two top Russian bankers announced that Russian companies were preparing to start settling trade using the RMB and other Asian currencies due to fears that Ukraine-related sanctions may hamper their ability to conduct business in U.S. dollars.³⁴

By relying on offshore markets, the Chinese government has essentially outsourced the internationalization of the RMB. Without corresponding changes in the domestic system, the

RMB will remain on the margins of the international financial marketplace. In that sense, China's government must make strides to open the capital account to allow foreign investment. To date, however, China has done little to open up the capital account for mainland investors looking to send money overseas.

There are several reasons for this reluctance. First, the liberalization of cross-border capital movement may prompt Chinese investors, starved for investment opportunities at home,^{viii} to jump at the chance to invest in overseas markets, leading to rapid capital outflow. The amounts potentially involved are nontrivial: According to a 2013 IMF working paper, capital account liberalization could produce over several years net outflows from China equalling 15 percent to 25 percent of the country's GDP.³⁵ Second, capital account liberalization is incompatible with China's policy of controlling the RMB's exchange rate and keeping it undervalued (which the PBoC accomplishes by compelling exporters to sell their dollar earnings in exchange for RMB, and then "sterilizing" the resulting domestic monetary expansion by issuing bonds). In other words, as long as Chinese government continues to manage the RMB's exchange rate, it cannot allow the free movement of capital across the border.

Chinese government officials realize that although the RMB's increased internationalization reduces exchange rate risk and increases government prestige, it can also intensify the pressure on the RMB to appreciate. Policymakers must balance international considerations against the domestic needs of the Chinese economy. Eswar Prasad, economics professor at Cornell University, has suggested that reform-minded Chinese policymakers may be using gradual RMB appreciation to push through reforms:

An intriguing possibility is that we are seeing a Trojan horse strategy in play—reform-minded policy makers using the goal of making the [RMB] a global currency to promote much-needed domestic reforms to improve the balance and sustainability of China's growth. Uniting the country's citizens behind this nationalistic objective would build popular support for reforms needed to make it a reality—a better banking system, broader financial markets, a more flexible currency and other reforms. The path of China's growth and the [RMB's] role in the global economy will depend on those policy choices.³⁶

Given China's economic importance, the use of the RMB for international trade settlement will continue to grow. But China's stringent capital controls and underdeveloped financial markets remain big impediments to RMB's emergence as a reserve currency. Ultimately, a huge gulf exists between China and the United States in the depth and safety of their financial markets; this disparity serves as a powerful deterrent to any attempts by the RMB to supplant the dollar.

^{viii} Because Chinese government keeps interest rates on deposits very low (often negative in real terms), Chinese households primarily buy real estate as a means of investing their savings. In recent years, various "wealth management products" have emerged as the fastest-growing investment vehicle in China. These often risky products are part of China's vast "shadow banking" economy. For more information, see U.S.-China Economic and Security Review Commission, "Governance and Accountability in China's Financial System," 2013 Annual Report to Congress, November 2013, pp. 113-152.

http://origin.www.uscc.gov/sites/default/files/Annual_Report/Chapters/Chapter%201%3B%20Section%203%20Governance%20and%20Accountability%20in%20China%27s%20Financial%20System.pdf.

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¹ Andrew Batson, "Why Settling Trade in Yuan Matters," *Wall Street Journal*, September 3, 2010. <http://blogs.wsj.com/chinarealtime/2010/09/03/why-settling-trade-in-yuan-matters/>.

² Kenneth Rogoff, "America's Endless Budget Battle," *Project Syndicate*, October 1, 2013.

<http://www.project-syndicate.org/commentary/kenneth-rogoffwhat-a-us-default-would-mean-for-america-and-the-world>.

³ Federal Reserve Statistical Release, "Factors Affecting Reserve Balances of Depository Institutions," August 7, 2014. <http://www.federalreserve.gov/releases/h41/Current/h41.pdf>.

⁴ Ministère des Finances, Gran-Duché de Luxembourg, "Luxembourg's Finance Minister Luc Frieden on RMB Business in Luxembourg," August 2013.

http://www.mf.public.lu/actualites/2013/08/rmb_business_010813/index.html.

⁵ Society for Worldwide Interbank Financial Telecommunication (SWIFT), "RMB Internationalisation: Perspectives on the Future of RMB Clearing," SWIFT white paper, 2012.

http://www.swift.com/resources/documents/SWIFT_White_paper_RMB_internationalisation_EN.pdf.

⁶ Fiona Law and Carol Chan, "Hong Kong RMB Market Steps Forward," *Wall Street Journal*, April 25, 2013. <http://online.wsj.com/article/SB10001424127887324474004578444131690895340.html>.

⁷ Robert Cookson, "China Revs Up Renminbi Expansion," *Financial Times*, July 28, 2010.

<http://www.ft.com/intl/cms/s/0/2ff1d6ea-9a65-11df-87fd-00144feab49a.html#axzz3B2CesNfi>; Also, see Hong Kong Monetary Authority circular, "Renminbi Business in Hong Kong," July 19, 2010.

http://www.info.gov.hk/hkma/eng/guide/circu_date/20100719e1.pdf.

⁸ Jamil Anderlini, "Beijing Looks to Broaden Renminbi Use," *Financial Times*, August 17, 2010.

<http://www.ft.com/intl/cms/s/0/81500cea-a9fc-11df-8eb1-00144feabdc0.html#axzz3B2CesNfi>; Aaron Back and Joy C. Shaw, "Beijing Opens Up on Bonds," *Wall Street Journal*, August 18, 2010.

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