

**CHINA'S EFFORTS TO EXPAND
THE INTERNATIONAL USE OF THE RENMINBI**

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February 4, 2016

**Report prepared for the
U.S.-China Economic and Security Review Commission**

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¹ Cornell University, Brookings Institution, and NBER. The author is grateful to members and staff of the Commission for their thoughtful and constructive comments on an earlier draft of this report. Audrey Breitwieser, Karim Foda, and Tao Wang provided excellent research assistance. William Barnett and Christina Golubski provided editorial assistance. The opinions expressed in this report are solely those of the author and do not reflect the opinions of the institutions with which the author is affiliated.

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Executive Summary

This report analyzes three related but distinct aspects of the renminbi's (RMB) role in the global monetary system and describes the Chinese government's actions in each of these areas:

- *Internationalization*: Its use in denominating and settling cross-border trade and financial transactions, that is, its use as an international medium of exchange.
- *Capital account convertibility*: The country's level of restrictions on inflows and outflows of financial capital.
- *Reserve currency*: Whether the RMB is held by foreign central banks as protection against balance of payments crises.

China is promoting the international use of its currency by:

- Permitting the settlement of trade transactions with the RMB. In 2015, trade settlement in RMB amounted to about \$1.7 trillion, roughly one quarter of China's annual trade volume.
- Allowing issuance of RMB-denominated bonds in Hong Kong (with an outstanding stock of bonds worth nearly \$400 billion in 2015) and other financial centers.
- Permitting selected banks to offer offshore RMB deposit accounts.
- Setting up 15 offshore RMB clearing centers, including in Frankfurt, Paris, and London.
- Creating a payment system for easier settlement of cross-border RMB transactions.

These steps are gaining traction, although they are still modest in scale. The RMB is the fifth-most important payment currency but still accounts for less than 3 percent of worldwide payments for cross-border trade and financial transactions. The RMB also accounts for less than 2 percent of turnover in global foreign exchange markets.

Starting in 2000, China resisted appreciation pressures on the RMB by intervening in foreign exchange markets to prevent its value from rising rapidly relative to the U.S. dollar. This move led to the accumulation of nearly \$4 trillion in foreign exchange reserves by June 2014. The RMB began facing mild depreciation pressures in the summer of 2014, and China has experienced a surge in capital outflows since then. Despite an ostensible move to a market-determined exchange rate in August 2015, the currency's value relative to the dollar continues to be managed by the People's Bank of China (PBC). By the end of 2015, China's reserves had fallen to \$3.3 trillion as the PBC tried to limit the RMB's depreciation relative to the dollar.

The RMB's prospects as a reserve currency will be influenced by these criteria:

- *Economic size*: A country's size and its shares of global trade and finance are important determinants of reserve currency status. China accounts for 13 percent of world gross domestic product (16 percent if measured by purchasing power parity rather than market exchange rates) and 11 percent of world trade in goods.
- *Macroeconomic policies*: Investors in a country's sovereign assets must have faith in its commitment to low inflation and sustainable levels of public debt. China has a lower ratio of explicit public debt to GDP than most major reserve currency economies and has maintained moderate inflation in recent years.

- *Open capital account*: The currency must be easily tradable in global financial markets with no restrictions on capital flows. China is gradually and selectively easing restrictions on both inflows and outflows. The capital account has become increasingly open in de facto terms, but there are still extensive capital controls in place.
- *Flexible exchange rate*: Reserve currencies trade freely, and their external value is market determined. China has increased the flexibility of its exchange rate, although the central bank still intervenes in foreign exchange markets to keep the value of the RMB stable relative to the dollar. The exchange rate will become increasingly harder to manage as the capital account becomes more open.
- *Financial market development*: A country must have well-developed financial markets and provide international investors with access to a wide array of financial assets denominated in its currency. China has relatively shallow government and corporate bond markets, with low trading volumes, and a volatile stock market.

The RMB is already on the path to being a reserve currency both in principle and in practice:

- The RMB's inclusion in the basket of currencies that make up the IMF's Special Drawing Rights, with a weight of 10.9 percent, makes it an official reserve currency.
- A number of central banks are holding, or have announced plans to hold, at least a small fraction of their foreign exchange reserve portfolios in RMB-denominated assets. It is estimated that about one percent of global foreign exchange reserves is in RMB assets.
- The PBC has set up currency swap arrangements with 34 central banks.

China faces two major domestic challenges that will influence the RMB's role in the global monetary system and also determine the balance and sustainability of China's growth:

- *Sequencing of capital account opening with other policies, such as exchange rate flexibility and financial market development*: Freeing up cross-border capital flows before strengthening domestic financial markets and letting the currency float freely could affect capital flow volatility and pose risks to financial stability.
- *Financial market development*: Measures such as strengthening the banking system and developing more stable and well-regulated equity and bond markets are important for better resource allocation within China.

Recent turmoil in Chinese equity and currency markets suggests that financial market reforms, in the absence of broader market-oriented and institutional reforms, could generate volatility with few corresponding benefits. Reforms to the real side of the economy, including state-owned enterprise reform and liberalization of the services sector, are important adjuncts to financial market and capital account reforms. Institutional reforms such as better corporate governance, enhanced auditing and accounting standards, and stronger regulatory frameworks are also required. China's slowing growth momentum could complicate, or even stall, these much-needed reforms. In the absence of broad reforms, inefficient resource allocation, lower productivity growth, and wasteful investment will persist. This would drag down growth, worsen the debt overhang, and heighten risks to the financial system. The recent tightening of capital controls to limit capital outflows and RMB depreciation could hurt investor confidence and impede the process of RMB internationalization.

The main forward-looking conclusions of the report are as follows:

- China's capital account is likely to become largely open within the next three to five years, with few restrictions on capital inflows and outflows other than some "soft" controls related to registration and reporting requirements.
- The RMB will play an increasingly important role in global trade and finance, with the currency being used more widely to denominate and settle cross-border transactions.
- The underdeveloped state of China's financial markets is likely to be the major constraint on the RMB's rising prominence in international finance.
- The present leadership's commitment to financial sector and other market-oriented reforms—if implemented effectively and with careful management of transitional risks—sets the RMB on a clear course to become a significant reserve currency.

The implications for the United States are as follows:

- The structure of capital flows from China to the United States will shift from official purchases of U.S. Treasury securities to other channels—including foreign direct investment and debt/equity portfolio flows—as portfolio diversification by Chinese households, corporations, and institutional investors begins dominating China's capital outflows.
- The RMB's growing prominence as an international currency will, over time, diminish the dollar's role as a unit of account (for denominating international trade transactions) and a medium of exchange (for settling cross-border financial transactions).
- Although the RMB is on track to become a significant reserve currency, a broader set of political, legal, and institutional reforms are required for the RMB to become a safe-haven currency. In the absence of these broader reforms, the rise of the RMB will erode but not seriously challenge the dollar's status as the dominant global reserve currency.

1. Introduction and Overview

China's economy is now the second largest in the world and a key driver of global growth. Its currency, the renminbi (RMB), was only recently elevated to the status of an official reserve currency. The potential for the RMB to develop quickly into an international currency is not without historical precedent.² However, any discussion of the RMB's ascendance might seem premature given that China has neither a flexible exchange rate nor an open capital account, once considered essential prerequisites for a country's currency to have a major role in global financial markets.

This report outlines some of the steps taken in recent years by the Chinese government to promote the international use of the RMB, which in turn is linked to moves to open up China's capital account. Given China's rising shares of global GDP and trade, these steps are gaining traction and portend a rising role for the RMB in global trade and finance. The report then reviews the potential implications of these changes for capital flows into and out of China. The report evaluates the progress that China has made in various aspects of financial market development and discusses the close relationship between those reforms, capital account openness, and the international role of the currency. It also discusses the prospects for the RMB becoming a reserve currency and the implications that could have for the global configuration of reserve currencies and the U.S. economy.

The Chinese government's approach to policies that promote the RMB's use as an international currency is closely linked to domestic macroeconomic objectives and financial market development. The RMB's impact on the global monetary system—in particular whether it will contribute positively to global financial stability—depends on the manner and speed with which China opens up its capital account and develops its financial markets as well as on the other policy changes put in place to support this process and the implications for China's own growth and stability.

This report analyzes three aspects of the RMB's role in the international monetary system: (i) the trajectory of the RMB's "internationalization"; (ii) the likelihood and timing of China's path to currency convertibility (an open capital account with no restrictions on capital inflows or outflows); and (iii) the prospects of the RMB becoming a major reserve currency.

The report will evaluate these three related but distinct elements within a unified conceptual framework and evaluate their implications along two dimensions: first, by reference to the balance and sustainability of China's own economic development; and second, by reference to the associated implications for the global monetary system, including for the U.S. dollar's status as the dominant reserve currency.

² The speed of the dollar's ascent as it vaulted past the pound sterling is documented by Eichengreen and Flandreau (2009).

1.1. Concepts

There is a great deal of hyperbole surrounding the RMB, with some commentators going so far as to argue that its displacement of the dollar as the dominant reserve currency is imminent.³ Before evaluating these claims, it is important to first clarify a few relevant concepts. Popular discussions of the RMB's emergence on the international stage tend to conflate three related but distinct aspects of a currency's role in international finance.

- *Internationalization*: Its use in denominating and settling cross-border trade and financial transactions, that is, its use as an international medium of exchange.
- *Capital account convertibility*: The country's level of restrictions on inflows and outflows of financial capital. A fully open capital account has no restrictions on cross-border capital flows.
- *Reserve currency*: Whether the currency is held by foreign central banks as protection against balance of payments crises.

The international usage and convertibility of a currency are distinct concepts, and neither is a necessary or sufficient condition for the other. The RMB is a prime example of a currency that is increasingly being used in international transactions even though China restricts capital flows. And of course there are many countries that have fully open capital accounts but whose currencies do not have broad acceptance in global markets. Some economies have a fully open capital account but a fixed exchange rate. For instance, Hong Kong has an open capital account but lacks a flexible exchange rate, as the Hong Kong dollar is pegged to the U.S. dollar.

All of these conditions—capital account convertibility, floating exchange rate, and internationalization—have been regarded as necessary for a currency to become a reserve currency. This report will consider how much progress China has made along each of these dimensions and describe how they are interconnected.

The typical prerequisites for a reserve currency are as follows:

- *Economic size*: A country's GDP as well as its shares of global trade and finance are important, although not crucial, determinants of its reserve currency status.
- *Macroeconomic policies*: Investors in a country's sovereign assets must have faith in its economic policies, especially the commitment to low inflation and sustainable levels of public debt, so the value of the currency is not in danger of being eroded.
- *Open capital account*: Reserves must be acceptable as payments to a country's trade and financial partners, which requires that the currency be easily tradable in global financial markets.

³ Prasad and Ye (2012) provide a systematic evaluation of China's progress along each of the dimensions of the RMB's progress as an international currency. Chen, Peng, and Shu (2009) and Subramanian (2011) argue that the RMB is well on its way to becoming a major, if not dominant, reserve currency. Dobson and Masson (2009), Eichengreen (2011b), and Kroeber (2011) offer more nuanced and skeptical views. Angeloni et al. (2011) discuss probabilities of alternative scenarios, noting that the RMB may gain prominence if the euro does not mount a serious challenge to the dominance of the U.S. dollar.

- *Flexible exchange rate*: Reserve currencies are typically traded freely and their external value is market determined, although this does not preclude occasional bouts of intervention by the country's central bank in foreign exchange markets. It is worth emphasizing that an open capital account is not synonymous with a freely floating exchange rate.
- *Financial market development*: A country needs to have a broad range of well-functioning financial markets, especially government bond markets, to provide a sufficient quantity of high-quality financial assets that can be held by foreign investors, including central banks. The amount of trading (turnover) in these bond markets, which determines how easy it is for investors to get into or out of these investments, is also important.

This report will provide a quantitative evaluation of China's progress on each of these metrics. In addressing these criteria vis-à-vis the RMB, this report will discuss two major challenges China faces:

- Sequencing of capital account opening with other policies, such as exchange rate flexibility and financial market development, to improve the benefit/cost trade-off
- Financial market development—strengthening the banking system; developing extensive and well-regulated government and corporate bond markets as well as foreign exchange spot and derivative markets

Financial market development in the home country is one of the crucial determinants of a currency's international status. The relevant aspects of financial market development include:

- *Breadth*: the availability of a broad range of financial instruments, including markets for hedging risk;
- *Depth*: a large volume of financial instruments in specific markets
- *Liquidity*: a high level of turnover (trading volume)

Without a sufficiently large debt market, the RMB cannot be credibly used in international transactions. If there is insufficient liquidity in equity and fixed-income (government and corporate debt) markets for RMB-denominated assets, the currency will not be attractive to foreign investors, especially institutional investors and central banks. At the same time, both importers and exporters may be concerned about greater exchange rate volatility resulting from an open capital account if they do not have access to derivatives markets to hedge foreign exchange risk.

This report evaluates China's financial market development and reforms (both actual and proposed), as these are crucial for the RMB's prospects as a reserve currency. The report also evaluates the potential impact of the rise of the RMB on the U.S. economy and financial markets as well as on the U.S. dollar.

2. Capital Account Opening

This chapter provides documentation and an assessment of China's capital account openness in both de jure and de facto terms.⁴ It also provides some analytical perspectives on China's approach to capital account liberalization.

The first question is, why would capital account liberalization be a priority for China given the many domestic challenges the economy faces, including slowing economic growth, a weak financial system, and unbalanced growth that is still heavily dependent on investment? It may be that liberalization of outflows would generate a number of collateral (indirect) benefits for the domestic economy, particularly in terms of domestic financial market development that, in turn, could facilitate more stable growth.⁵

Liberalizing outflows provides Chinese households with opportunities to diversify their savings portfolios internationally and stimulates domestic financial reforms by creating competition for domestic banks that currently depend on captive domestic sources of funds (retail deposits of households and corporations). Initiatives to encourage corporate outflows have focused on large state-owned firms and a concentrated set of sectors such as natural resources.⁶ For the RMB to take on a more international role, both portfolio and foreign direct investment (FDI) outflows will need to involve more participation from the private sector.

The liberalization of inflows is also an important part of the overall picture in terms of attaining the collateral benefits of capital account liberalization.⁷ This liberalization already has allowed and will continue to allow foreign investors to play a larger role in further developing and deepening China's financial markets. For instance, there is a significant body of evidence that liberalizing portfolio inflows helps improve liquidity in the domestic equity markets of emerging economies. This, along with the entry of foreign banks, would increase competition in the banking sector, which in turn would benefit private savers and borrowers. Other segments of China's financial sector, including the insurance sector, have depended on capital controls and other entry restrictions to stay competitive. These segments will face greater competition with more open inflows. With effective regulation, this could lead to significant efficiency gains.

Capital account liberalization could also have broader benefits for China. An open capital account would catalyze progress toward the objective of making Shanghai an international financial center. Capital account opening, especially if accompanied by greater exchange rate flexibility, could also strengthen China's domestic economic structure. It would facilitate financial sector reforms, allowing for a rebalancing of growth away from a reliance on exports and investment-driven growth to a more balanced model of growth with higher private consumption. Financial sector reforms can play a crucial role in this rebalancing effort by

⁴A burgeoning body of literature on specific aspects of China's exchange rate management and capital account liberalization includes Frankel (2005, 2011), Eichengreen (2011b), Lardy and Douglass (2011), Yam (2011), and Yu (2011, 2015).

⁵ See Prasad and Rajan (2008).

⁶ See Rosen and Hanemann (2009) and Scissors (2011).

⁷ See Kose, Prasad, Rogoff, and Wei (2009) for an analytical discussion and a survey of the evidence to support the arguments in this paragraph.

promoting a more efficient allocation of resources towards the most productive uses. A more flexible exchange rate would free up monetary policy to facilitate achieving domestic macroeconomic objectives such as maintaining low and stable inflation.⁸

2.1. De Jure Capital Account Openness

De jure measures of capital account openness typically rely on binary indicators from the International Monetary Fund (IMF)'s *Annual Report on Exchange Arrangements and Exchange Restrictions* (AREAER). These binary measures reflect the existence of any restrictions on a large number of categories of inflows and outflows. These measures change only when there is a relatively major policy shift related to specific capital account items. The AREAER indicates that, as of 2014, China had restrictions of some sort in 14 out of 15 categories of capital inflows and in 15 out of 16 categories of capital outflows. These categories, which are listed in Appendix A, are quite broad. The only ones China does not restrict are inflows and outflows of commercial credit. By contrast, the United States and most other advanced economies have almost entirely open capital accounts.

Other conventional measures of de jure financial openness drawing on the AREAER data show little, if any, change for China over the past decade. For example, the popular Chinn-Ito index (Chinn and Ito, 2008, and subsequent updates) has registered very little change in China's de jure openness since 1993. The index, which is based on a statistical procedure that aggregates information from various categories covered by the AREAER, ranges from 2.39 (most financially open) to -1.89 (least financially open). A higher value corresponds to a greater degree of de jure capital account openness.

The advanced economies with reserve currencies (such as Canada, Japan, Switzerland, the United Kingdom, and the United States.) have the same index value of 2.39, which is the maximum and indicates a fully open capital account. The value of this index for China in 2013 is -1.19, compared with an average close to the maximum for advanced economies, 0.3 for emerging market economies, and 0.1 for less developed economies. This value indicates a relatively closed capital account characterized by capital controls that are, on paper, extensive and stringent. China's index jumped from -1.89 to -1.19 in 1993 and has not changed at all since then.

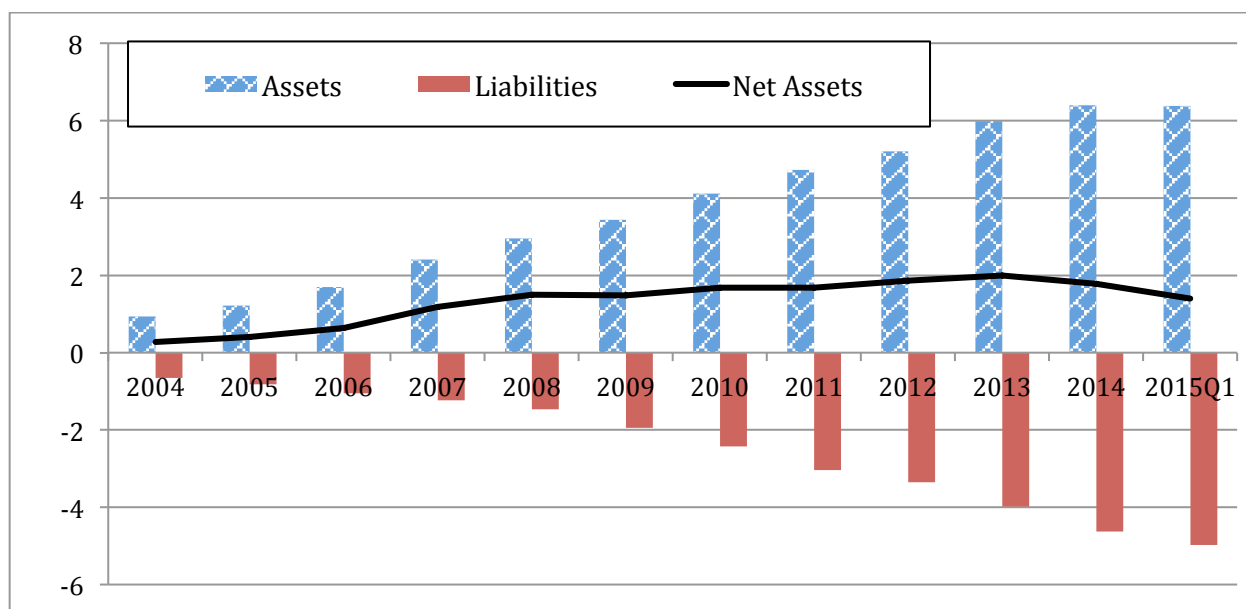
Standard de jure indices fail to capture many subtle or limited changes in capital account openness, changes that tend to be aggregated across categories of inflows or outflows. Appendix B provides detailed documentation of significant changes to capital account restrictions during the past decade, based on the AREAER reports. The listing indicates that the number and magnitude of relaxations to capital account restrictions have gathered pace in the past few years, consistent with the active promotion of the RMB as an international currency. In most cases, constraints on inflows and outflows have been made less stringent rather than eliminated entirely.

⁸ See Prasad (2009) for a more detailed discussion of these issues.

2.2. De Facto Openness

An alternative and complementary approach to evaluating an economy's financial openness is to analyze de facto measures of integration into global financial markets. Figure 2-1 shows the levels of China's gross external (foreign) assets and liabilities, along with the net asset position, from 2004 through the first quarter of 2015. China now has \$6.4 trillion of external assets and \$5 trillion of external liabilities. Both assets and liabilities have risen sharply over the last decade.

Figure 2-1. China's External Assets and Liabilities
(in trillions of U.S. dollars)



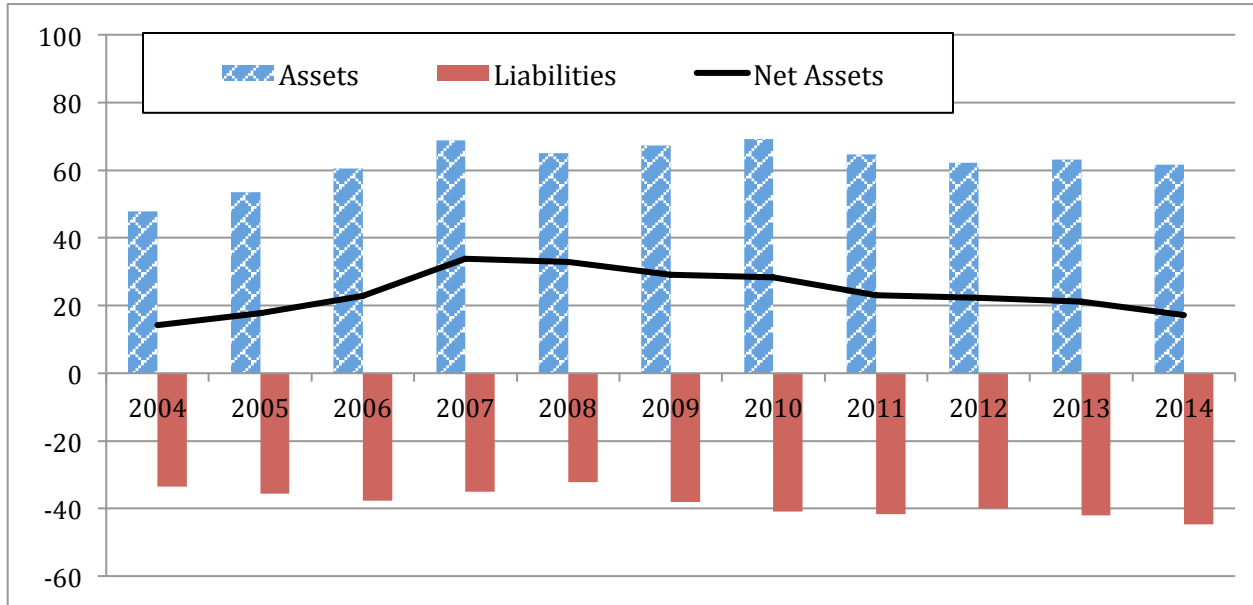
Source: State Administration of Foreign Exchange via CEIC

Figure 2-2 shows that China's gross external assets comprise roughly 62 percent of GDP while gross external liabilities equal about 44 percent of GDP in 2014. A standard measure of financial openness used widely in the academic literature is an economy's gross assets plus liabilities position (i.e., its gross external position) either in levels or as a ratio to GDP.⁹ For China, the ratio of gross assets and liabilities to GDP is now over 100 percent. In terms of levels, China's gross external position exceeds those of other key emerging markets and also that of Switzerland. As a share of GDP, its openness lags behind those of the reserve currency economies. Among emerging markets, however, China's de facto measure of openness is relatively high, exceeding the levels of countries such as Brazil and India.¹⁰

⁹ See Kose, Prasad, Rogoff, and Wei (2009).

¹⁰ See Prasad and Ye (2012).

Figure 2-2. China's External Assets and Liabilities
(in percent of GDP)



Source: State Administration of Foreign Exchange via CEIC

Starting in 2015, China began reporting its international investment position (IIP) based on the IMF's latest Balance of Payments and International Investment Position Manual (BPM6). A major change, according to the State Administration of Foreign Exchange (SAFE), is that the key IIP items are now reported using the market capitalization method rather than the historical flow accumulation method. Data through 2014 are still reported based on BPM5. Hence, comparisons of the IIP in 2015 with those of prior years are not feasible. It should be noted that SAFE began reporting balance of payments data based on BPM6 standards earlier, so those data are in fact comparable over time, although these changes also highlight the difficulty of matching flow and stock measures in earlier years.

An examination of China's IIP in 2015 (at the end of the second half of the year) reveals a number of interesting features (Table 2-1). Foreign exchange reserves account for 58 percent of China's external assets. FDI accounts for 57 percent of China's external liabilities, while portfolio equity liabilities account for another 14 percent. Portfolio debt and other investments (which typically capture bank loans) account for 29 percent of external liabilities. The relatively low share of external debt in China's external liabilities, coupled with the fact that foreign exchange reserves are more than sufficient to cover them, suggests that China is not exposed to the vulnerability caused by high levels of external debt that has precipitated past crises in many emerging market economies.

Table 2-1. China's International Investment Position
(in billions of U.S. dollars)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015H1
Net position	276	408	640	1188	1494	1491	1688	1688	1866	1996	1776	1471
Assets	929	1223	1690	2416	2957	3437	4119	4735	5213	5986	6409	6430
FDI	53	64	91	116	186	246	317	425	532	660	744	1013
Portfolio	92	117	265	285	253	243	257	204	241	259	263	276
Equity	0	0	1	20	21	55	63	86	130	153	161	178
Debt	92	117	264	265	231	188	194	118	111	105	101	98
Other investments	166	216	254	468	552	495	630	850	1053	1187	1503	1370
Reserve Assets	619	826	1081	1547	1966	2453	2914	3256	3388	3880	3899	3771
FX Reserves	610	819	1066	1528	1946	2399	2847	3181	3312	3821	3843	3694
Liabilities	653	816	1050	1228	1463	1946	2431	3046	3347	3990	4632	4959
FDI	369	472	614	704	916	1315	1570	1907	2068	2331	2678	2827
Portfolio	57	77	121	147	168	190	224	249	336	387	514	900
Equity	43	64	106	129	151	175	206	211	262	298	369	673
Debt	13	13	14	18	17	15	18	37	74	89	145	227
Other investments	227	267	315	378	380	442	637	891	943	1272	1440	1232

Source: SAFE via CEIC

To summarize the evidence from de facto and de jure measures of openness, China still has an extensive capital control regime in place, but it is selectively and cautiously dismantling these controls. Many of the restrictions on cross-border capital flows have been loosened over time, consistent with the policy objective of promoting the RMB's role as an international currency. In most cases, constraints on capital inflows and outflows have been loosened but not eliminated. The country's capital account is becoming increasingly open in de facto terms, although by this measure China is financially less open than many reserve currency economies.

2.3. Controlled Capital Account Liberalization

China's government has created a number of schemes that allow for controlled and calibrated opening of the capital account to both inflows and outflows. These schemes have been designed to generate many of the collateral benefits of financial openness while creating freer movement of capital. Table 2-2 contains a summary of the main schemes that have recently been instituted to liberalize inflows, outflows, and two-way flows. A more detailed description of each of these programs follows after the table.¹¹

¹¹The exchange rate used to calculate U.S. dollar equivalents of RMB data in this table and the remainder of this report is based on the January 4, 2016 exchange rate of RMB 6.5 per U.S. dollar.

Table 2-2. A Summary of Recent Schemes to Liberalize Cross-Border Capital Flows

Channels for Inflows

Qualified Foreign Institutional Investor (QFII) Scheme: Launched in 2002. Allows qualified foreign institutions to convert foreign currency into RMB and invest in Chinese equities (both A shares and B shares) and a range of other RMB-denominated financial instruments. As of October 2015, a total quota of \$78.9 billion had been granted to 277 foreign institutions, including 8 central banks and 10 sovereign wealth funds.

Renminbi Qualified Foreign Institutional Investor (RQFII) Scheme: Launched in 2011. Allows qualified institutions to use offshore RMB funds to invest in Chinese equities and a range of other RMB-denominated financial instruments. As of July 2015, a total quota of \$68.4 billion had been granted to 135 financial institutions.

Channels for Outflows

Qualified Domestic Institutional Investor (QDII) Scheme: Launched in 2006. Allows Chinese domestic financial institutions—commercial banks, securities companies, fund management companies, and insurance companies—to invest in offshore financial products such as securities and bonds. As of November 2015, a total quota of \$90 billion had been granted to 132 financial institutions.

Qualified Domestic Individual Investor (QDII2) Scheme: Proposed in 2013; not yet launched. Will permit individual retail investors with at least RMB 1 million (\$160,000) in assets to invest in offshore financial products such as securities and bonds.

Channels for Two-Way Flows

Free Trade Zones (FTZs): Shanghai FTZ launched in September 2013. Three new FTZs in Guangdong, Tianjin, and Fujian launched in April 2015. The FTZs use a “negative list” approach to regulate foreign investment—there are few restrictions on foreign investment in industries not on the list. Cross-border capital transactions and establishment of financial institutions within the zones have been liberalized.

Shanghai-Hong Kong Stock Connect: Launched in 2014. Allows mainland Chinese investors to purchase shares of select Hong Kong and Chinese companies listed in Hong Kong, and lets foreigners buy Chinese A shares listed in Shanghai. HK-to-Shanghai annual quota: RMB 300 billion (\$47 billion); daily quota RMB 13 billion (\$2 billion). Shanghai-to-HK annual quota: RMB 250 billion (\$39 billion); daily quota: RMB 10.5 billion (\$1.6 billion).

Mutual Fund Connect: Launched in July 2015. Allows eligible mainland and Hong Kong funds to be distributed in each other’s markets through a streamlined vetting process. Initial aggregate investment quota: RMB 300 billion (\$47 billion) each for inward and outward fund flows.

Sources: SAFE, China Securities Regulatory Commission.

Channels for Inflows

Qualified Foreign Institutional Investor (QFII) Scheme

The QFII scheme, introduced in December 2002, allows qualified foreign institutional investors (FIIs) to convert foreign currency into RMB and invest in A shares listed on the Shanghai and Shenzhen stock exchanges as well as in other RMB-denominated financial products approved by the China Securities Regulatory Commission (CSRC).¹² The scheme seeks to attract high-quality and stable (medium-to-long-term) foreign portfolio investments while deterring short-term speculative inflows of foreign capital. One of the scheme's main objectives is to promote the development of China's securities market.

CSRC and the SAFE share regulatory authority over China's QFII Scheme. CSRC has responsibility for approving license applications, and SAFE sets the investment quota. CSRC and SAFE have established eligibility criteria for QFII applicants with the explicit goal of blocking short-term, speculative capital inflows of foreign capital and inviting long-term investors such as pension, insurance, mutual, and charitable funds that have long-term investment horizons. FIIs applying for QFII status are required to meet minimum eligibility criteria related to the number of years of operation, the dollar value of total assets under management (AUM), and sound financial status and corporate governance. They also need to be domiciled in countries with sound legal and regulatory systems and whose securities market regulators have entered into a memorandum of understanding (MOU) for maintaining regulatory cooperation with the CSRC.

QFIIs are typically foreign fund management institutions, insurance companies, securities companies, and other asset management institutions that have been granted a license by the CSRC and an investment quota by SAFE to invest in China's financial market and, most importantly, in the A share market. QFII eligibility criteria related to the minimum number of years of operation and the minimum total AUM in the most recent fiscal year have been progressively liberalized to allow an increasing number of foreign institutional investors—smaller and lesser known—to undertake portfolio investment in China.

SAFE has, over time, liberalized the flows of foreign portfolio investment via the QFII channel by increasing the aggregate amount available for allocation as QFII quotas and also by relaxing the maximum quotas for individual QFIIs. As of October 2015, the total investment quota awarded under the scheme was about \$78.9 billion, covering 277 institutions. CSRC also announced that it intends to raise the total QFII quota from \$80 billion to \$150 billion.

SAFE has also gradually increased the maximum amount that each QFII can be granted in quotas. For the period from January 2003 to September 2009, each QFII could be granted a maximum amount of \$800 million across all quota allocations. In late 2009, this maximum was increased to \$1 billion. Only a handful of sovereign wealth funds, central banks, and monetary authorities were allowed to invest more than \$1 billion. In March 2015, the \$1 billion investment

¹² This sub-section draws on Sharma (2015). Before 2002, the A share market was closed to foreign investors.

quota limit for overseas fund management companies was lifted as part of the effort to further open up the country's capital market and pursue structural reforms.

QFIIs from advanced and industrial economies remain predominant with only 10 of the 251 QFIIs (i.e., less than 5 percent) being domiciled in emerging and developing markets. The highest number of QFIIs (45, or 18 percent) is domiciled in Hong Kong followed by the United States (38, or 15 percent) and the United Kingdom (27, or 11 percent). It is estimated that QFIIs hold, on average, two-thirds of their total assets in China in the form of A shares.¹³ However, QFII investments in the A share market remain small compared with the overall size of that market. A shares held by QFIIs account for less than 2 percent of the tradable capitalization of the A share market. Thus, any effects of the QFII scheme on securities markets development have been largely catalytic rather than directly substantive in nature.

In the early stages of the program, each QFII was required to hold no less than 50 percent of its total assets in equities or equity-related instruments and no more than 20 percent of its assets in cash. These restrictions sought to avert the expectation that QFIIs were likely to place the bulk of their assets in fixed-income securities and even cash, mainly to speculate on RMB appreciation. Since 2012, the CSRC has eliminated the restriction that a minimum of 50 percent of a QFII's investment portfolio has to be held in equity or equity-related instruments. However, QFIIs still cannot hold more than 20 percent of their investment portfolio in cash. Moreover, investments by a QFII in any single company listed in China cannot exceed 10 percent of its total shares, and the cumulative shares held by all QFIIs in any single company cannot exceed 20 percent of its total shares.¹⁴

RMB Qualified Foreign Institutional Investor (RQFII) Scheme¹⁵

The RQFII program was jointly launched in late 2011 by CSRC, SAFE, and the PBC. The key difference between the QFII and the RQFIIs programs is that RQFIIs can use offshore RMB to invest in mainland markets directly. By contrast, QFIIs must first convert their foreign currency funds into RMB before purchasing equities and securities in onshore markets. Thus, the RQFII scheme may be seen as a response of Chinese government authorities to the expansion of the pool of offshore RMB funds. This scheme, like the QFII scheme, requires financial institutions to apply for licenses from CSRC and investment quotas from SAFE, and to submit all relevant materials to the PBC. Approved institutions need to open special RMB accounts separately for investment on foreign exchange markets, interbank bond markets, and stock index futures in

¹³ See Sharma (2015).

¹⁴ Latest versions of the rules and regulations governing the QFII program can be found on the CSRC website at: http://www.csrc.gov.cn/pub/csrc_en/OpeningUp/RelatedPolicies/QFII/.

¹⁵ This sub-section draws on the following official sources: PBC Notice on "Implementation of the Measures for Pilot Domestic Securities Investment Made by RMB Qualified Foreign Institutional Investors" <http://bit.ly/1RCfNk0>; CSRC Circular on "Measures for Pilot Domestic Securities Investment Made by RMB Qualified Foreign Institutional Investors of Fund Management Companies and Securities Companies" <http://bit.ly/1TYo7tN>; and SAFE Circular on "Relevant Issues Concerning the Pilot Program on Domestic Securities Investments by Fund Management Companies and Securities Companies as RMB Qualified Foreign Institutional Investors" <http://bit.ly/1ONOMcv>.

domestic custodian banks. In addition, the accounts for the institutions' self-owned funds and the funds of clients must be separated.¹⁶

The movements of funds under the RQFII scheme are subject to various restrictions. The funds that can be remitted inward include the investment principal remitted from overseas, amounts required for the payment of the relevant taxes and fees, and other RMB funds permitted by the PBC and SAFE to be remitted inward. The funds that can be remitted outward include income from the sale of domestic securities, cash dividends and interest, and other RMB funds permitted by the PBC and SAFE to be remitted outward. These funds may be remitted outward in RMB or in foreign exchange purchased with RMB.

Initially, only Hong Kong subsidiaries of Chinese financial institutions were eligible for RQFII licenses. Since 2014, the scheme has been expanded to additional Hong Kong banks and asset managers and subsequently also to financial institutions in the United Kingdom, Singapore, South Korea, France, Germany, Australia, and Switzerland. As of July 2015, 135 financial institutions, including foreign institutions and foreign branches of China's financial institutions, have been granted a total quota of \$68.4 billion under this scheme. Financial institutions from Hong Kong, many of which are Hong Kong branches of mainland financial institutions, are still the major players. Hong Kong now accounts for \$43 billion of the allocated RQFII quota and South Korea for \$8 billion.¹⁷ The introduction of RQFII has given rise to several RMB-denominated A share exchange-traded funds (ETFs). RQFII ETFs seek to track the performance of an A share index by investing RMB raised outside the mainland directly in a portfolio of A shares.

Channels for Outflows

Qualified Domestic Institutional Investor (QDII) Scheme¹⁸

The QDII scheme allows Chinese domestic financial institutions, most of which are still state owned, to invest in offshore financial products such as securities and bonds. The origin of the program was the Chinese government's decision in September 2004 to allow insurance companies such as Ping An (Group) to invest assets abroad. The program was officially launched in 2006 and permits selected commercial banks, securities companies, fund management

¹⁶ Notice of the People's Bank of China on the Implementation of Measures for the Pilot Program of Securities Investment in China by RQFIIs.

¹⁷ The RQFIIs with the top five quota allocations (amounting to roughly a combined \$20 billion) are all based in Hong Kong—CSOP Asset Management Limited; E-Fund Management (Hong Kong) Co., Limited; China Asset Management (HK) Limited; Harvest Global Investments Limited; and Haitong International Investments Limited.

¹⁸ This sub-section and the next one draw on the following sources: IMF Statement by Zhou Xiaochuan Governor, People's Bank of China, <https://www.imf.org/External/spring/2015/imfc/statement/eng/chn.pdf>; "China may let individuals in Shanghai FTZ invest abroad in H1—Sources" *Reuters*, April 29, 2015; and "Shanghai trade zone aims for QDII2 trial this year—Official" *Reuters*, March 17, 2015.

companies, and insurance companies to invest in foreign capital markets subject to certain restrictions.

Financial institutions have to first apply for a QDII license from the relevant regulatory agencies (CSRC, China Banking Regulatory Commission, and China Insurance Regulatory Commission), which depends on their main line of business. They then have to seek a quota allocation from SAFE. The general qualification requirements for QDII include (i) stable financial status and good credit; (ii) qualified personnel with the requisite asset management and risk assessment expertise; (iii) sound governance structure and internal control systems; and (iv) no record of any major penalty levied by the relevant regulatory authority. There are also specific requirements depending on the types of institution involved. For example, an eligible fund management company needs to have net assets of at least RMB 200 million, at least two years of active participation in the fund management business, and more than RMB 20 billion or assets of equal value under management at the end of the latest quarter.

The scope of investments under the QDII program is subject to certain restrictions, with investments in bank deposits, debt securities, stocks, bonds, and derivatives being permitted, while investments in real estate and precious metals are forbidden. The proportions of the portfolios of the funds are required to stay consistent with regulatory rules. The approved investment destinations for QDIIs include Hong Kong, the United Kingdom, the United States, Singapore, Japan, Korea, Luxemburg, Germany, Canada, Australia, and Malaysia. It is interesting to note that these are mostly advanced economies, and all of them have well-developed financial markets and good financial sector regulatory frameworks.

As of November 2015, 132 institutions have been granted QDII licenses and a total quota of \$90 billion has been set. The breakdown of quotas by institution type is as follows: securities companies (\$38 billion), insurance companies (\$31 billion), banks (\$14 billion), and trust companies (\$8 billion).

Qualified Domestic Individual Investor (QDII2) Scheme

The proposed Qualified Domestic Individual Investor scheme, commonly known as QDII2, will expand the QDII scheme from institutional to individual retail investors. The scheme was first proposed by the PBC in January 2013 and discussed by the State Council later in May of that year. In April 2015, PBC Governor Zhou Xiaochuan confirmed in a speech to the IMF's International and Monetary Finance Committee that China would launch the pilot QDII2. However, the scheme has yet to be formally launched. In June 2015, the Shanghai government's official website indicated that Shanghai would launch a trial of the program in its free trade zone by the end of the year. The plan was also discussed in a report on RMB internationalization released by the PBC in June 2015.¹⁹

¹⁹ The relevant documents are as follows: The Report on Internationalization of RMB (PBC, June 2015); The Plans on Promoting the Trials of Finance Opening and Innovation in Shanghai FTZ to Accelerate the Construction of Shanghai International Financial Center (Co-released by PBC, Ministry of Commerce, CBRC, CSRC, CIRC, SAFE and Government of Shanghai, October 2015).

The program will eventually be launched in at least six Chinese cities: Shanghai, Tianjin, Chongqing, Wuhan, Shenzhen, and Wenzhou. However, the specific framework and timeline of the program have yet to be announced. News reports indicate that the new pilot scheme will allow individuals with at least RMB 1 million (roughly \$160,000) in assets to invest directly overseas in securities, stocks, and real estate. At present, the maximum amount of RMB that individuals can exchange for foreign currency is subject to an annual cap of \$50,000 per year; this restriction would not apply to investors under QDII2.²⁰

2.4. Free Trade Zones

China has extended its experimental, learning-by-doing approach to reforms to the capital account liberalization program. One manifestation of this approach has been in the form of free trade zones (FTZs) that are islands of capital account convertibility within China. The objective of these zones is to allow for a greater degree of capital account openness but in a controlled manner by limiting it to specific geographical areas.

The China Pilot Free Trade Zone in Shanghai was officially launched on September 29, 2013. It was expanded in 2015 to include Lujiazui, the city's financial district. In late February 2014, the PBC and SAFE issued two circulars to loosen controls on foreign exchange transactions and to promote cross-border use of the RMB within the Shanghai FTZ. The regulators for the banking, securities, and insurance industries (China Banking Regulatory Commission, CSRC, and China Insurance Regulatory Commission) all issued circulars announcing measures to open up financial services in the FTZ.²¹

²⁰ See, for instance, "China to launch QDII2 overseas investment scheme soon in six cities," *Reuters*, October 26, 2015; and "China to allow individuals buy overseas financial assets," *Financial Times*, October 29, 2015.

²¹ The relevant links and official documents from which the materials in this section are drawn are as follows: State Council Infographic: Negative List on Foreign Investment in China's Free Trade Zones. http://english.gov.cn/policies/infographics/2015/04/21/content_281475093149079.htm. Circular of the Shanghai Headquarters of the People's Bank of China on Supporting Expanded Cross-Border Use of RMB in the China (Shanghai) Pilot Free Trade Zone; <http://en.china-shftz.gov.cn/Government-affairs/Laws/Banking/265.shtml>. Circular of the Shanghai Headquarters of the People's Bank of China on Supporting Expanded Cross-Border Use of RMB in the China (Shanghai) Pilot Free Trade Zone; <http://en.china-shftz.gov.cn/Government-affairs/Laws/Banking-Regulatory/265.shtml>. Notice of Shanghai Branch of the State Administration of Foreign Exchange on Issuing the Detailed Rules for the Implementation of Regulations on Foreign Exchange Management in the China (Shanghai) Pilot Free Trade Zone; <http://en.china-shftz.gov.cn/Government-affairs/Laws/General/255.shtml>. Circular of the Shanghai Headquarters of the People's Bank of China on Lifting the Upper Limit on Small-amount Foreign Currency Deposit Rates in the China (Shanghai) Pilot Free Trade Zone; <http://en.china-shftz.gov.cn/Government-affairs/Laws/Banking/264.shtml>. Circular of the China Banking Regulatory Commission on Issues Concerning Banking Supervision in China (Shanghai) Free Trade Zone; <http://en.china-shftz.gov.cn/Government-affairs/Laws/Banking/191.shtml>. Circular of the China Insurance Regulatory Commission on Supporting the Construction of the China (Shanghai) Pilot Free Trade Zone. <http://en.china-shftz.gov.cn/Government-affairs/Laws/Insurance/193.shtml>

In April 2015, China launched three new FTZs. Each of these FTZs is expected to cover a few specific sectors. Major industries in the Guangzhou Nansha New Area (including the Nansha bonded port) include the shipping industry, logistics, the financial industry, international trade, and high-end manufacturing. The Shenzhen Qianhai Development Zone will cover the financial industry, modern logistics, information services, and technology services. The Zhuhai Hengqin New Area will include the tourism industry and finance services as well as cultural, education, and high-tech industries.²²

Some of the key features of the FTZs are as follows: (i) without seeking approval from the PBC, banking institutions in the zone are free to process cross-border RMB settlements under current accounts and under direct investment for entities; (ii) companies in the zone are allowed to borrow RMB offshore, although these funds cannot be used outside the FTZ and cannot be invested in securities or used for extending loans; (iii) voluntary foreign exchange settlement by foreign-invested enterprises (FIEs) within the zone is permitted, allowing FIEs to convert foreign currency in their capital accounts into RMB at any time; (iv) qualified foreign-invested banks are allowed to set up subsidiaries, branches, or special institutions to upgrade existing sub-branches to branches; (v) qualified private investors can enter the banking sector in the FTZ and set up banks, finance leasing companies, consumer finance companies, and other finance institutions; and (vi) the government has indicated its intention to support banking institutions in the FTZ to develop cross-border financing services.

Despite its name, an FTZ is not fully open to foreign investors. The Shanghai FTZ uses a “negative list” structure to regulate foreign investment, the first of which the Shanghai government unveiled in 2013. The implication of the negative list is that investment in sectors that are not on the list is mostly unrestricted, although some administrative procedures must still be followed. The approval process for establishing an FIE in an industry not on the negative list has been simplified.

On April 20, 2015, the State Council issued the third edition of the negative list, which now applies to all four FTZs. The 2015 negative list contains 122 prohibited or restricted areas, down from 139 in the 2014 list, although these numbers are not directly comparable over time because of changes in classifications and definitions. Part C of the Appendix tabulates the main elements of the negative list and highlights some of the significant changes relative to the previous versions of the negative list.

Changes include removing certain restrictions in the mining, air traffic control systems management, medical and pharmaceutical product manufacturing, and telecommunications industries. A number of restrictions in manufacturing and in retail and wholesale trade have been lifted. Restrictions on investment in sectors such as real estate, construction, and textiles have also been removed. Foreign investments are restricted to joint ventures with domestic companies in sectors such as oil and natural gas exploration and development, general-purpose airplane design, and rare earths smelting. Sectors in which neither domestic nor foreign companies can invest, such as weapons and ammunition, are not included in the list.

²² The discussion in this sub-section draws on some material from China Briefing, an online resource provided by Dezan Shira & Associates.

Foreign companies in the FTZs will be subject to a national security review if they seek to invest in certain “sensitive industries, technologies, and locations.” Under rules effective as of May 2015, foreign companies will have to undergo such a review if they invest and have a controlling stake in “the military industry, certain agricultural produce, major energy and resources, major infrastructure projects, and telecommunication products that may affect national security.” Detailed descriptions of the types of companies that are subject to this review and the structure of the review process are provided in Appendix C. During President Xi’s visit to the United States in September 2015, China committed to limiting the scope of the national security review. However, there are still significant concerns about how this process might impede foreign investment in the FTZs.²³

The FTZs provide a significant channel for two-way capital flows through the banking system as well as through corporates, although there is in principle a firewall between each FTZ and the rest of the mainland. Over time, these firewalls are likely to erode since there are multiple financial institutions and corporations operating on both sides. Nevertheless, using FTZs does provide the government with another controlled approach to capital account opening that mitigates the potential risks of full capital account opening.

2.5. The Shanghai–Hong Kong Stock Connect

An alternative approach to selective and calibrated capital account liberalization would be implementing a stock connect program that creates another channel for cross-border equity investments by a broad range of investors, including retail investors. The “stock connect” link between the Shanghai and Hong Kong stock exchanges was officially launched on November 17, 2014. The program allows mainland Chinese investors to purchase shares of select Hong Kong and Chinese companies listed in Hong Kong (Southbound investment), and lets foreigners buy Chinese A shares listed in Shanghai (Northbound investment) in a less restrictive manner than had previously been the case. Trading in each direction under this program is subject to a maximum cross-border investment quota (i.e., an aggregate quota), together with a daily quota. The Northbound aggregate quota is set at RMB 300 billion (roughly \$45 billion), with the daily quota being RMB 13 billion (about \$2 billion). The corresponding Southbound quotas are RMB 250 billion (aggregate, roughly \$40 billion) and RMB 10.5 billion (daily, roughly \$1.7 billion). Compliance with these quotas in each direction is monitored by the Stock Exchange of Hong Kong (SEHK) and the Shanghai Stock Exchange.

The quota balances are calculated at the end of each trading day on a net-buy basis: Aggregate Quota Balance = Aggregate Quota - Aggregate Buy Trades + Aggregate Sell Trades. The daily

²³ White House Office of the Press Secretary, *Fact Sheet: U.S.-China Economic Relations*, September 25, 2015. <https://www.whitehouse.gov/the-press-office/2015/09/25/fact-sheet-us-china-economic-relations>. Also see the briefs by Tim Stratford and Yan Luo, “National Security Review Creates FDI Hurdle,” *China Law & Practice* (Covington & Burling), July 13, 2015, https://www.cov.com/~media/files/corporate/publications/2015/07/national_security_review_creates_fdi_hurdle.pdf; and Thomas Chou et al., “China’s Draft Foreign Investment Law: A Paradigm Shift in Regulation of Foreign Investment,” *Morrison & Foerster LLP*, February 12, 2015. <http://www.mofo.com/~media/Files/ClientAlert/2015/02/150212ChinasDraftForeignInvestment.pdf>.

quota caps the daily net value of cross-border trades and is updated on a real-time basis. When the balance falls short of the daily quota, all buy orders on the next trading day are suspended while sell orders are still accepted. The control mechanism under the daily quota can be shown in the form of the schematic in Table 2-3.

Table 2-3. Control Mechanism for Daily Quotas under the Stock Connect Program

	Call Auction	Continuous Auction
Balance \leq Zero	New buy orders will be rejected until balance reaches positive level	No further buy orders will be accepted for this trading day
	Sell orders will still be accepted	

Source: Shanghai Stock Exchange

Enforcement of the daily and annual quotas is managed through the structure of the settlement mechanisms. The Hong Kong Securities Clearing Corporation (HKSCC) and the China Securities Depository and Clearing Corporation (CSDC) in mainland China are each other’s clearing participants and undertake the settlement obligations of their respective clearing participants’ trades on a net basis. Importantly, settlement is undertaken on the day after a trade is executed. In addition, the stock exchanges on both sides keep themselves informed by tracking buying and selling transactions as well as daily balances. With these mechanisms in place, regulators have real-time information on the volume of trades in both directions as well as the quota balances.

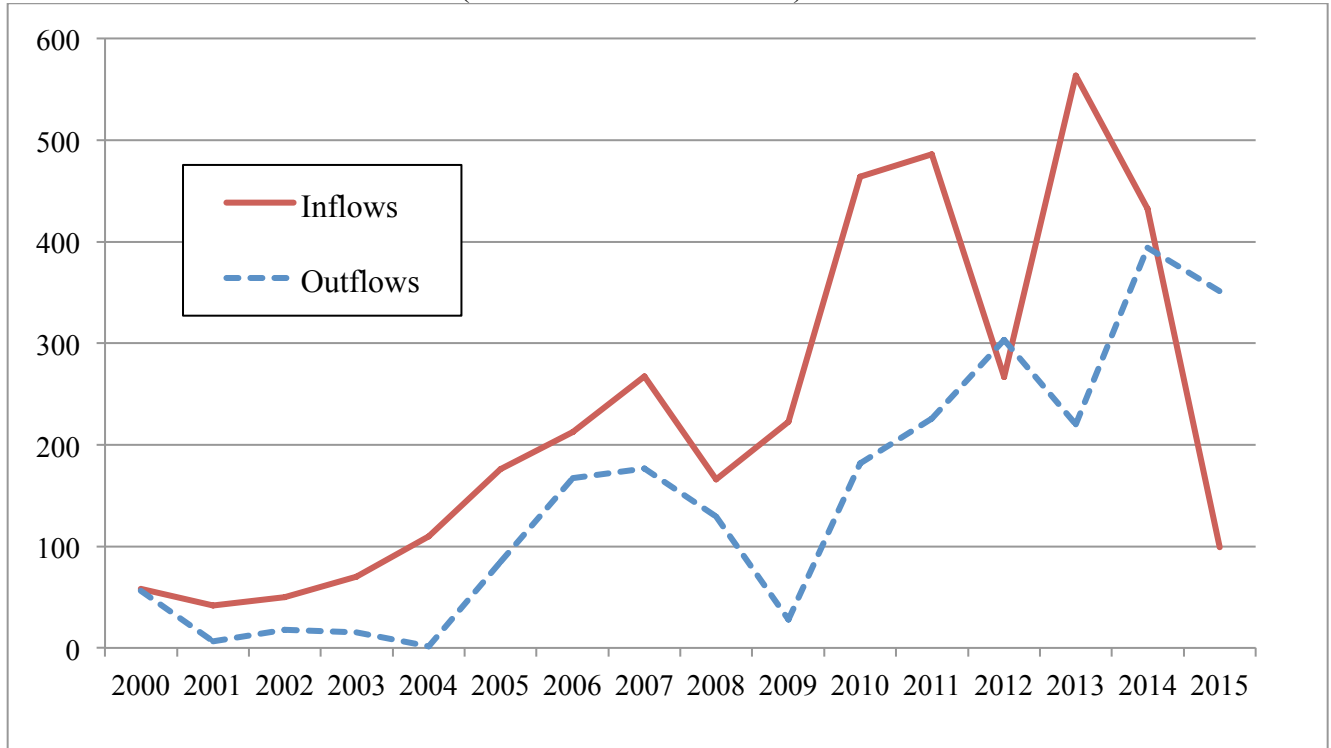
This investment channel has been used quite extensively. The Northbound daily quota was met on the launch day and has been consistently high (until the summer of 2015, when the Chinese stock market began to fall sharply), while the Southbound daily cap was hit for the first time in April 2015. The government has indicated that it plans to set up more stock-connect schemes that link other mainland cities to Hong Kong, but no specific dates have been announced.

2.6. Effects on the Volume and Composition of Capital Flows

In short, while China still has an extensive capital control regime in place, it is selectively and cautiously dismantling these controls. Partly as a result of this dismantling, the country’s capital account is becoming increasingly open in de facto terms. This trend has affected both the volumes and composition of capital inflows and outflows.

Figure 2-3 shows that the volumes of gross capital inflows and outflows (excluding official accumulation of foreign exchange reserves) have trended upward since 2000. Gross inflows rose from \$58 billion in 2000 to a peak of \$563 billion in 2013. With rising concerns about China’s short-term growth prospects, gross inflows then fell sharply in 2014 and 2015 (to facilitate comparison across years, the data on gross flows for 2015 are calculated by simply doubling the data for the first half of the year). Gross outflows, by contrast, have remained strong in 2014–2015. In 2014, gross outflows nearly hit \$400 billion, compared with \$56 billion in 2000.

Figure 2-3. Gross Capital Inflows and Outflows
(in billions of U.S. dollars)



Source: SAFE via CEIC

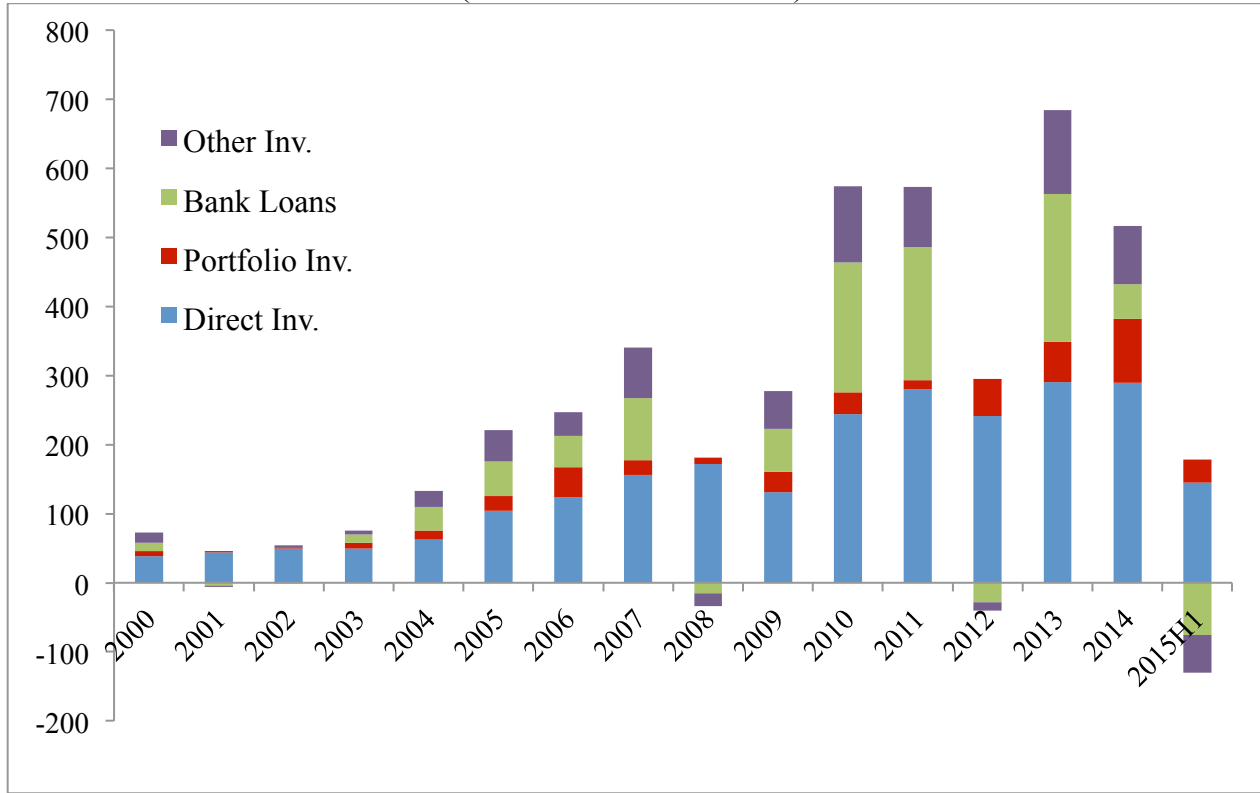
Note: Data for 2015 are based on doubling the data for the first half of that year.

Figure 2-4 shows that the composition of gross inflows has shifted significantly over time. FDI has been the key component of inflows in most years since 2000, mainly because the government had reduced barriers to FDI inflows but maintained substantial restrictions on other types of inflows for most of the previous decade.²⁴ In 2010 and 2011, bank loans and other investment surged as the government opened up other channels for inflows. Portfolio inflows began to pick up in 2012 due to the increase in quotas and liberalization of the QFII scheme as well as the introduction of the RQFII scheme. However, portfolio inflows still remain modest relative to overall inflows. FDI inflows held up well in the first half of 2015, but bank loans and other investment in fact reversed course.²⁵

²⁴ See Prasad and Wei (2007).

²⁵ Although this chart shows gross inflows, foreign investors' repatriation of previous inflows counts as a negative item in balance of payments accounting.

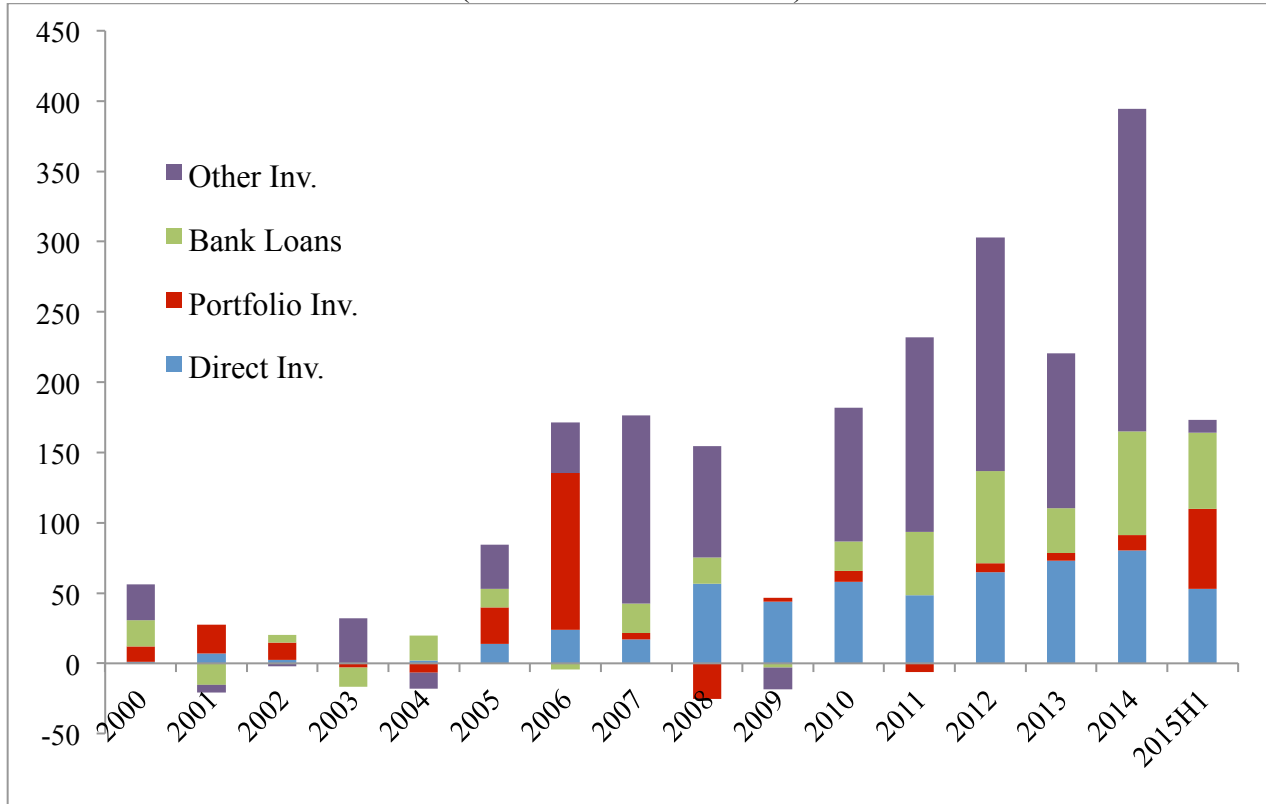
Figure 2-4. Composition of Gross Capital Inflows
(in billions of U.S. dollars)



Source: SAFE via CEIC

Figure 2-5 examines the composition of gross capital outflows (other than foreign exchange reserve accumulation by the PBC). Starting in 2007, “other investments” have dominated gross outflows. From 2008 onward, direct investment outflows have also become large, accounting for an average of roughly \$60 billion in outflows each year. Portfolio outflows rose significantly in the first half of 2015, possibly reflecting the increasing number of channels available for Chinese investors to take money out and also the decline in the Chinese stock market (which began in June 2015).

Figure 2-5. Composition of Gross Capital Outflows
(in billions of U.S. dollars)



Source: SAFE via CEIC

Rising foreign investments by Chinese households, corporations, and institutional investors have led to a marked shift in the pattern of China’s overall exports of financial capital, which include not only the gross capital flows studied above but also the accumulation of foreign exchange reserves. To explore changes in the composition of overall capital outflows, they are split into (i) reserve accumulation and (ii) gross private and non-reserve official outflows plus (the negative of) net errors and omissions. The latter category includes foreign investments made by the China Investment Corporation (China’s sovereign wealth fund) as well as by other state-owned financial and corporate entities. Figure 2-6 shows the trailing three-year moving averages of shares of gross capital outflows accounted for by these two components. There is clearly a trend toward change in the composition of gross outflows, which has shifted markedly from reserve accumulation to official and unofficial flows due to both the private and state sectors. This shift is consistent with the SAFE’s stated objective of shifting foreign exchange risk from the central bank’s balance sheet to those of households, corporations, and state-controlled entities such as the sovereign wealth fund.

The objective of “foreign exchange holdings by the people” (rather than the central bank) will have a significant impact on the composition of future capital outflows from China. While the government is providing channels for international portfolio diversification, which is a positive development, there is a risk that lack of effective oversight of domestic securities markets and institutional investors that enable such diversification could portend risks for household and corporate balance sheets.

Figure 2-6. The Structure of China's Gross Capital Outflows
(in percent)



Sources: SAFE and CEIC

Notes: This figure shows three-year trailing averages of the shares of China's gross capital outflows accounted for by net reserve accumulation and all other outflows, which includes private outflows as well as foreign investments by Chinese official agencies, including its sovereign wealth fund. Data for 2015 are based on data for the first half of the year.

While the government is taking a number of steps to promote capital account liberalization, its final objective in this regard remains unclear. The end game for the government appears to be a capital account that is largely open but still subject to some degree of administrative control. Joseph Yam (2011), the former head of the Hong Kong Monetary Authority, has argued that the long-term objective for China ought to be full capital account convertibility, which he defines as relaxation of capital controls but maintenance of “soft” controls in the form of registration and reporting requirements for regulatory purposes. He draws a careful distinction between this and an entirely unfettered capital-flow regime, referred to as free capital account convertibility. This is a subtle but important distinction that appears to have resonated well with the Chinese leadership, given that full convertibility by this definition provides a path to an open capital account without ceding control entirely to market forces.

3. The Exchange Rate Regime

This chapter describes developments in the exchange rate regime, the evolution of the RMB's value against the U.S. dollar and other currencies, and the structure of the foreign exchange trading system. Since the early 2000s, China has been criticized by the United States and international institutions such as the IMF for keeping its currency undervalued through foreign exchange market intervention. For much of this period, China was running large trade surpluses as well as financial account surpluses, reflecting large net capital inflows. To prevent the currency appreciation that would result from these twin surpluses, China intervened in foreign exchange markets, essentially by recycling foreign currency inflows through purchases of those foreign currencies, which were then invested mostly in advanced economy government bonds. Although measures of currency undervaluation are notoriously imprecise and unreliable, a clear sign of the renminbi's undervaluation for much of the last decade and a half is the rapid accumulation of foreign exchange reserves, which, by June 2014, had reached a peak of \$3.99 trillion.

While analyzing these developments, there are two points worth noting. First, even though China has clearly intervened heavily in foreign exchange markets to moderate currency appreciation, since 2005 the RMB has appreciated substantially relative to the dollar and the currencies of its other trading partners. Second, since the summer of 2014, pressures on the RMB have reversed and, in recent months, the PBC has in fact been intervening in the other direction, spending of its hard currency reserves to prevent the RMB from depreciating rapidly. Since June 2014, China's foreign exchange reserves have fallen by about 12 percent, to \$3.53 trillion in October 2015.

3.1. Exchange Rate Management

The value of the RMB had been tightly managed against the U.S. dollar since the mid-1990s, but it was allowed to appreciate gradually against the dollar starting in July 2005 (Figure 3-1). In principle, starting at that time the PBC implemented a managed floating exchange rate mechanism, with the currency's value determined by market demand and supply, and with reference to a basket of currencies. The PBC would announce the reference rate (relative to the U.S. dollar) at which the RMB would begin trading each day, with intra-day volatility of plus or minus 0.3 percent permitted. In reality, the practice of managing the value of the RMB relative to the U.S. dollar did not stop and the amount of daily volatility was quite limited, although over time the RMB was allowed to appreciate gradually relative to the dollar.

In May 2007, the daily trading band was widened to 0.5 percent in each direction relative to the reference rate. With the U.S. housing market beginning to unravel in late 2007, eventually triggering the onset of the global financial crisis in the second half of 2008, the RMB's hard peg to the dollar was reinstated in July 2008 before being relaxed again in June 2010. In April 2012, the daily fluctuation band of the RMB-dollar exchange rate was widened to 1 percent on either side of the reference rate set by the PBC. In March 2014, the daily fluctuation band was widened further to 2 percent on each side. Although the PBC has not allowed the foreign exchange market to freely determine the RMB's value, the RMB has in fact appreciated by about 35 percent relative to the dollar since June 2005, when it was depegged from the dollar.

Figure 3-1. China: Bilateral Exchange Rates
(RMB per unit of foreign currency)



Source: SAFE

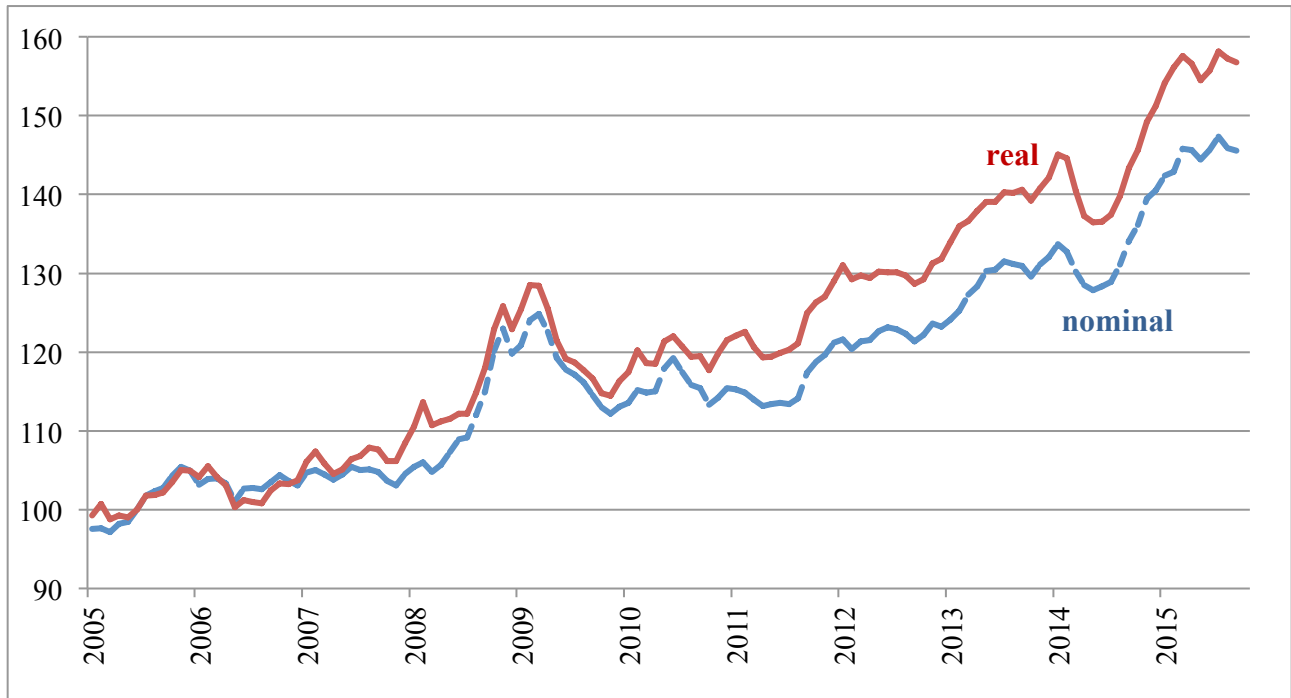
Note: The left scale shows the RMB’s exchange rates relative to the U.S. dollar and the euro. The right scale shows the RMB’s exchange rate relative to the Japanese yen. A decrease denotes appreciation of the RMB. An increase denotes depreciation.

Despite these moves to ostensibly increase currency flexibility, over the last decade the volatility of China’s nominal exchange rate against the dollar, as measured by the standard deviation of changes in monthly exchange rates, has been the lowest among the major emerging market economies.²⁶ China’s trade-weighted effective exchange rate measures, which tend to track each other closely, are more volatile than the nominal exchange rate.²⁷ The gap in exchange rate volatility relative to other emerging markets is smaller using these measures, but China still has the lowest level of volatility in this group, suggesting a lower level of flexibility than the other currencies in this group. In other words, China displays more flexibility in its effective exchange rate, but this flexibility is still quite limited. Nevertheless, the RMB has appreciated by 47 percent on a trade-weighted basis since June 2005 (Figure 3-2). On an inflation-adjusted basis, the appreciation over this period is even greater—about 57 percent.

²⁶ See Prasad and Ye (2012).

²⁷ The trade-weighted exchange rate is an index computed as a weighted average of the RMB’s bilateral exchange rates with China’s major trading partners, with the weights reflecting the share of each of those partners in China’s total foreign trade. This “effective” exchange rate can be computed either on the basis of bilateral nominal exchange rates only (the nominal effective exchange rate) or by adjusting for differences in the inflation rate between China and those of each of its trading partners (the real effective exchange rate).

Figure 3-2. China: Effective Exchange Rates
(June 2005 = 100)



Source: Bank for International Settlements

Note: A decrease denotes appreciation of the RMB. An increase denotes depreciation.

China's foreign exchange rate management can be characterized as having three elements:

- The reference pricing mechanism, whereby the PBC sets the opening price for trading on the Shanghai China Foreign Exchange Trading System (CFETS) each morning.
- A 2 percent trading band around the central parity, which determines the maximum amount of intra-day volatility in the RMB-dollar exchange rate.
- A dirty float, to prevent excessive exchange rate fluctuations when the PBC determines that the exchange rate is overshooting on one side or the other.²⁸

On August 11, 2015 the PBC changed the first element of the exchange rate management mechanism, combined with a 1.9 percent devaluation of the RMB relative to the dollar. The other two elements were left unchanged.²⁹ Until then, the PBC's opening reference price could differ from the closing price on the CFETS the previous trading day. In other words, relative to the opening reference price, the RMB could rise by 2 percent or fall by 2 percent during a given trading day. But the reference price the next morning could be, and often was, the same as the opening reference price on the previous day. With the recent change, that is no longer the case. The reference price is no longer delinked from the previous day's closing price although, with

²⁸ This characterization is adapted from remarks made at a conference by PBC chief economist Ma Jun.

²⁹ PBC Announcement on Improving Quotation of the Central Parity of RMB against US Dollar, August 11, 2015. <http://www.pbc.gov.cn/english/130721/2941603/index.html>.

RMB trading now taking place in markets such as London that are in other time zones, the two prices need not necessarily be the same. The key point is that the RMB exchange rate relative to the dollar is now more subject to market forces.

It appeared on August 11 that the PBC had combined a move to weaken the RMB with a shift to a more market-determined exchange rate. In principle, this move should have blunted criticism that it was merely an orchestrated currency devaluation since all the PBC was doing was reducing its foreign exchange market intervention to prop up the RMB's value as part of a shift to a more free-floating currency. China's currency move could also be interpreted as a relatively modest and defensive one, aimed at signaling that the PBC would not persist in supporting the RMB's value relative to the dollar if the dollar were to keep rising against other major currencies. Indeed, in the year before this move, the trade-weighted effective exchange rates of the RMB had appreciated sharply (Figure 3-2).

However, the shift in currency policy set off a negative reaction in financial markets that were already jittery because of fears over a sharp slowdown in growth in China and the volatility in the Chinese stock market that had manifested since June 2015. Stock markets around the world, including in the United States, fell sharply as China's policy action was taken as a response to domestic economic weakness rather than as a market-oriented reform. The move also reverberated in currency markets worldwide as it was interpreted as an indication that China's central bank had joined others such as the European Central Bank and the Bank of Japan in trying to engineer a weaker currency in order to prop up exports and counter weak domestic demand.³⁰

On December 11, 2015, the PBC indirectly hinted at another change in policy, posting on its website an article indicating that the CFETS would begin publishing a set of trade-weighted exchange rate indexes. The piece lays out the logic, noting that "For quite long, market participants have used bilateral exchange rate of RMB against USD to assess RMB exchange rate movements. However, as fluctuations of exchange rate serve to adjust trade and investment activities with multiple trading partners, the bilateral RMB-USD exchange rate is not considered a good indicator of the international parity of tradable goods. Therefore, it is more desirable to refer to both the bilateral RMB-USD exchange rate and exchange rate based on a basket of currencies." The piece makes it clear that the objective of publishing the index is to "bring about a shift in how the public and the market observe RMB exchange rate movements."³¹

The CFETS has indicated that it will publish three exchange rate indexes—one based on the thirteen currency pairs with the RMB trading on the CFETS; one based on the much larger set of countries used by the Bank for International Settlements (BIS) to calculate its indexes; and a separate index based on the four major reserve currencies (the dollar, the euro, the yen, and the British pound sterling). The RMB-dollar exchange rate would receive a weight of at most 42

³⁰ See "China moves to devalue yuan" *Wall Street Journal*, August 11, 2015.

³¹ PBC Notice by Guest Commentator of CFETS "The Launch of RMB Index Helps to Guide Public View of RMB Exchange Rate," December 11, 2015
<http://www.pbc.gov.cn/english/130721/2988680/index.html>.

percent in these indexes. In the BIS index, the dollar would have a weight of only 18 percent, consistent with the amount of China's trade accounted for by the United States.³²

This approach appears to reflect a change in the PBC's strategy regarding both practice and communications. First, by finally putting into practice a policy that had in principle been in operation since 2005, this move would make it easier for the PBC to delink the RMB from the dollar. Second, the PBC may be preparing the market for further RMB depreciation relative to the dollar in the short run—if the dollar were to strengthen further—and focusing attention on a more suitable benchmark for future movements in the currency. However, the PBC has not revealed what currencies will be in the basket that the RMB's value is managed against and what the weights on those currencies will be.

3.2. Onshore and Offshore Exchange Rates

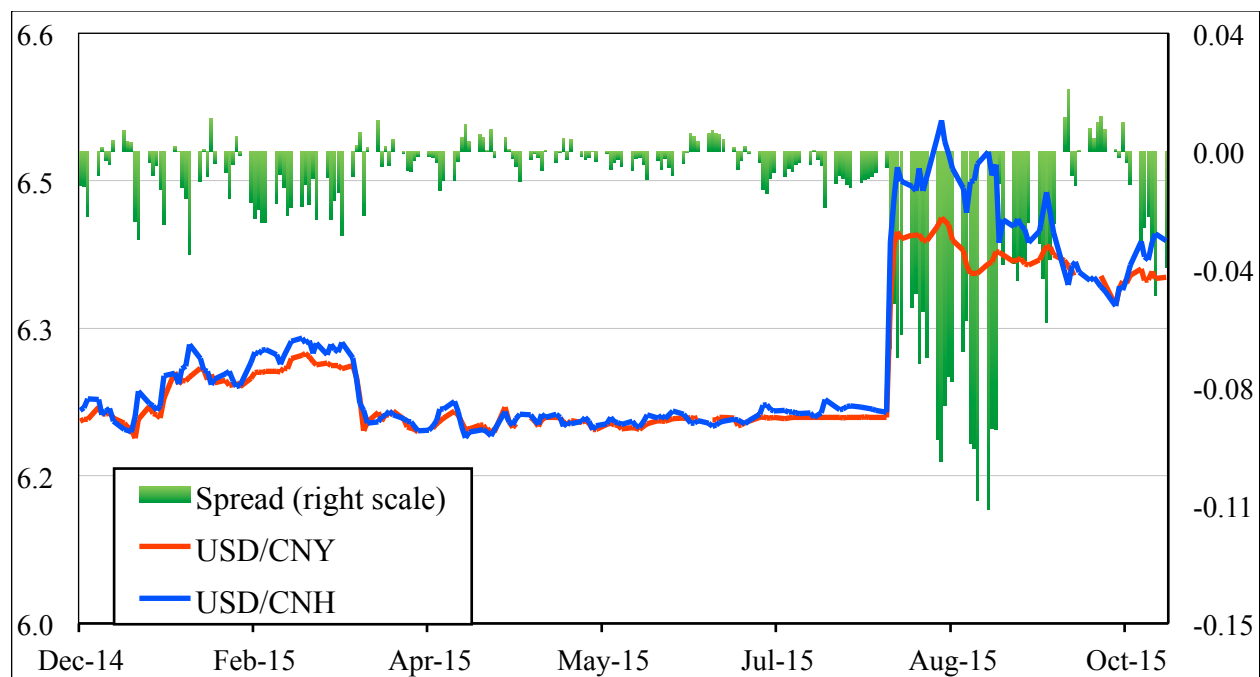
By limiting the flow of money across China's borders, the capital account restrictions described in Chapter 2 help control the value of the RMB, which now trades on both onshore (CNY) and offshore (CNH) markets. Onshore trade takes place through the CFETS, which is in effect managed by the PBC. The offshore trades take place mostly on the Hong Kong Interbank Market. Mainland government regulations mandate these separate markets for trading RMB. The onshore market is subject to the mainland's capital account restrictions and the RMB's value on that market is therefore controlled by the PBC to a greater extent. In contrast to the CNY market, the CNH market is not normally subject to intervention or direct official control by the PBC.

Before 2010, RMB-related activities in the offshore market were quite limited, often contributing to a marked deviation of the CNH exchange rate from that of the CNY—the RMB was typically more valuable offshore. The two exchange rates became more closely linked after a series of developments in the last quarter of 2010 boosted RMB-denominated financial transactions. These developments include the approval granted to financial institutions and banks in Hong Kong to open RMB accounts and for Hong Kong banks to access the onshore interbank market, activation of a swap line between the PBC and the Hong Kong Monetary Authority, and a flurry of RMB-denominated bond issuance activities. These measures have lowered transaction costs for eligible financial market participants to access both markets. As a result, the two rates have moved in lockstep for much of the period since the end of 2010, reflecting the rising integration of China's onshore and offshore financial markets.

³² PBC Notice by Guest Commentator of CFETS “The Launch of RMB Index Helps to Guide Public View of RMB Exchange Rate,” December 11, 2015
<http://www.pbc.gov.cn/english/130721/2988680/index.html>.

Figure 3-3 shows that, from January through July 2015, the two rates generally moved together, with only narrow spreads between them. However, that trend changed dramatically in August. The shift in the exchange rate regime that was combined with a currency devaluation on August 11, 2015 set off a sharp divergence between the two rates. For much of the remainder of the month, the RMB was worth less on the offshore than on the onshore markets, reflecting downward pressures on the RMB as markets appear to have interpreted the government's move as possibly being the first in a series of devaluations intended to support the weak economy by boosting exports. By intervening in the CNY market, the government was able to limit the downward pressures on the RMB-dollar exchange rate but at the cost of opening up a spread between the onshore and offshore rates. By mid-September 2015, this gap between the CNY and CNH exchange rates had been closed. Press reports suggest that the PBC and Chinese state-owned commercial banks intervened directly by buying RMB in the CNH market to facilitate this outcome.³³ It remains to be seen if this forced convergence of the two rates is sustainable, or if the PBC will allow the onshore rate to float more freely, leading to a natural, market-led convergence of the two rates.

Figure 3-3. Onshore (CNY) and Offshore (CNH) Spot RMB-Dollar Exchange Rates



Source: Bloomberg

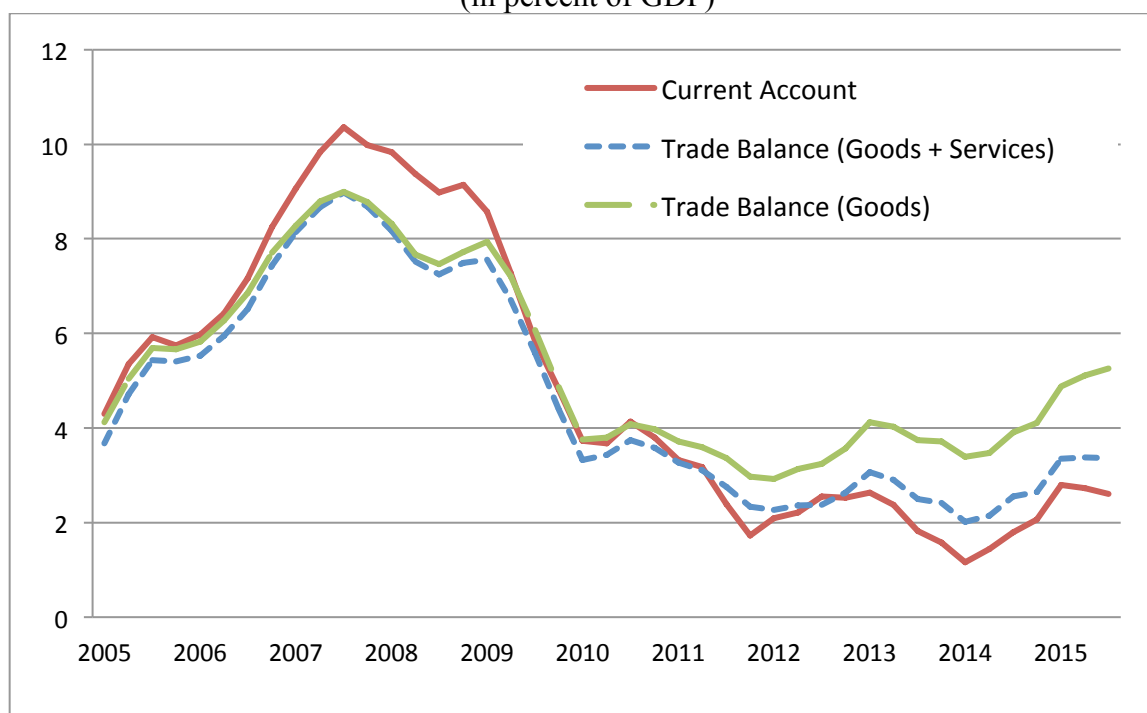
Notes: This chart shows daily data (end of the day) on the onshore and offshore spot exchange rate markets. The spread is defined as the USD/CNY minus USD/CNH.

³³ See, for instance, “China central bank seen ready to intervene again if offshore pushes yuan too far,” *Reuters*, September 11, 2015, and “China’s offshore currency rate jumps in late trade,” *Financial Times*, September 10, 2015.

3.3. External Balances and Reserves

China's external imbalances have to a large extent dissipated since the global financial crisis. China's current account and trade surpluses have shrunk relative to their peaks in 2007, when they hit 10.1 percent of GDP and 7.6 percent of GDP, respectively. On a rolling four-quarter basis, the two ratios stood at 2.8 percent and 3.4 percent, respectively, in the third quarter of 2015 (Figure 3-4). The merchandise trade balance (goods only) rose to 5.5 percent in 2015, reflecting falling imports and a slight recovery in exports towards the end of the year. Imports have fallen mainly because of a decline in import prices, especially commodity imports.³⁴

Figure 3-4. China: Current Account and Trade Balance
(in percent of GDP)



Sources: State Administration of Foreign Exchange and National Bureau of Statistics

Notes: The current account balance (dark solid line), the goods and services trade balance (dashed line), and the merchandise trade balance (goods only; light solid line) are shown as ratios to nominal GDP. The figure shows four-quarter trailing moving averages for all three variables.

China's foreign exchange reserves, which peaked at nearly \$4 trillion in the second and third quarters of 2014, fell to about \$3.53 trillion by October 2015 (Figure 3-5). Reserves had been rising quite steadily for a number of years until the second half of 2014, when they fell by \$150 billion. This fall was partly accounted for by valuation effects as the U.S. dollar value of China's holdings of euro- and yen-denominated assets declined due to the depreciation of those currencies relative to the dollar. The remainder signals intervention by the PBC to keep the RMB's value relative to the dollar stable in the face of large shifts in its balance of payments.

³⁴ See "China trade surplus swells as exports rise in boost for yuan," *Bloomberg News*, January 12, 2016.

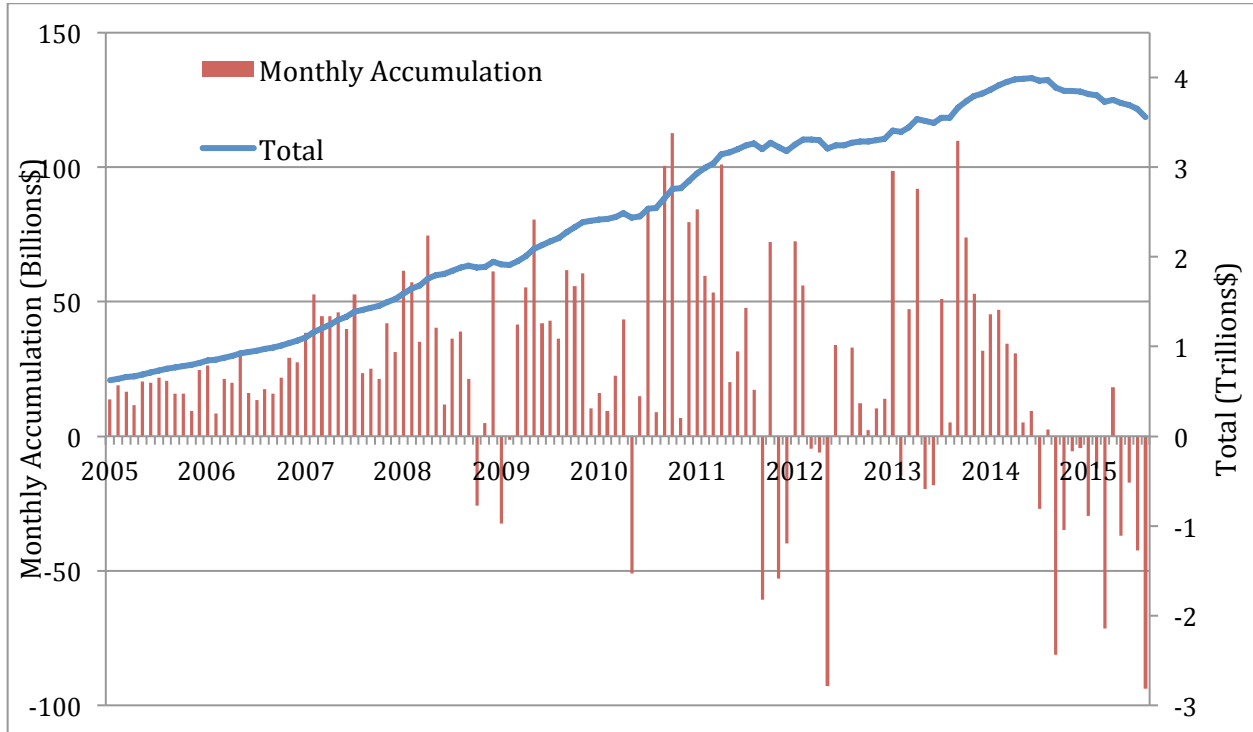
This fall in China's reserves appears to have picked up pace during 2015. There was a particularly large decline of about \$94 billion in August and another \$43 billion in September, before the position stabilized in October. Reserve losses then picked up again, amounting to a total of \$195 billion during November and December, as depreciation pressures on the RMB intensified. Overall, reserves fell by \$512 billion during 2015.³⁵

These shifts in patterns of reserve accumulation are attributable to two factors—the lower level of China's trade surplus in recent years and the deficit on the capital account, implying that more capital (other than accumulation of reserves) flowed out of the country relative to the amount that came in. This shift represents an important change in the nature of China's overall capital exports (which is roughly equivalent to the current account surplus). Balance of payments data show that in 2014, China's current account surplus was \$214 billion while the increase in international reserves, which effectively amounts to official capital outflows, was \$22 billion. This implies that private net capital outflows amounted to about \$192 billion.

The capital account deficits have sparked concerns about capital flight, with the connotation being that some domestic residents and corporations, concerned about China's domestic macroeconomic and financial situation, are sending capital out of the country. A more benign interpretation is that rising capital outflows are a natural consequence of steps that China is taking to open up its capital account and remove restrictions on outflows. As the economy matures and financial markets develop, domestic retail and institutional investors will look to foreign investments as a way of diversifying their portfolios. Moreover, Chinese corporations and financial institutions are investing abroad to diversify their operations and as a conduit for acquiring technical and managerial expertise. The discussion in Chapter 2 shows that this is a trend shift that has been encouraged by the government's capital account liberalization measures. In recent months, however, fears about capital flight have been heightened by concerns about the growth slowdown and the stock market decline. This issue is discussed in greater detail in Chapter 8.

³⁵ Figures based on SAFE data obtained via CEIC. Also see "PBOC in a Quandary Over Capital Controls," *Financial Times*, January 25, 2016.

Figure 3-5. China: Foreign Exchange Reserves



Source: PBC

3.4. Foreign Exchange Trading

The PBC set up an interbank currency market, the CFETS, in April 1994 with its headquarters in Shanghai.³⁶ The CFETS remains under the direct control of the PBC. The CFETS initially had a trading system that focused mainly on the RMB–dollar exchange rate but has since expanded, with a broad range of foreign currency trading introduced in 2005. The functions of the CFETS include: providing trading, information, benchmark, and training facilities to the interbank lending, bond and FX markets; monitoring market transactions; providing services for the operation and transmission of the PBC’s monetary policy actions; and engaging in other businesses authorized by the PBC.

The internationalization of the RMB would be assisted by smooth trading of currencies in a well-organized market that features multiple currencies, sufficient liquidity, and large numbers of participants as well as market makers. To this end, the Chinese government has taken a number of steps in recent years to improve the functioning of the CFETS.

³⁶ The headquarters is in Zhangjiang, Shanghai, with a local back-up center on the Bund and a remote back-up center in Beijing. Sub-centers of CFETS have also been set up in 18 provincial capitals and major cities of economic regions throughout the country, including Chengdu, Chongqing, Dalian, Fuzhou, Guangzhou, Haikou, Jinan, Nanjing, Ningbo, Qingdao, Shantou, Shenyang, Shenzhen, Tianjin, Wuhan, Xiamen, Xi'an, and Zhuhai.

The instruments now traded in the FX/RMB spot market cover 12 currency pairs with the CNY, including the U.S. dollar, euro, Japanese yen, Hong Kong dollar, British pound sterling, Australian dollar, New Zealand dollar, Singapore dollar, Canadian dollar, Malaysian ringgit, Russian ruble, and Thai baht. A few currency pairs without the CNY can also be traded, such as the U.S. dollar–euro, U.S. dollar–Japanese yen, and euro–Japanese yen.

Members exchange RMB and FX at contracted currencies, amounts, and exchange rates, and settle or deliver within two business days. There are two types of trades that can be executed on the CFETS: anonymous and bilateral. For anonymous trading, institutions post the buy and sell rates based on the middle rates set by the PBC every day, and the CFETS centralized platform then matches the bids and provides clearing services as the central counterparty. For bilateral trading, FX dealers, or the market makers, facilitate transactions by buying and selling foreign exchange with other parties separately, clearing and settling with each other according to the agreement. There is no difference between domestic and foreign institutions in terms of operating rules and procedures.

The CFETS initially had only a small set of state-owned banks as market participants. The system has been opened up considerably over the years. As of November 2015, there are 499 financial and non-financial institutions approved as market members licensed to trade on the spot foreign exchange markets. The list comprises banking institutions, including not only the holding companies of domestic and foreign banking institutions but also the local and foreign branches of these banking corporations in selected provinces and cities. There are nearly 100 foreign-funded financial institutions as approved members, while the rest are domestic institutions. A breakdown of the listed institutions by category is shown in Table 3-1.

Table 3-1. Categories of Members Licensed to Operate on the CFETS

Categories	Examples
Big commercial banks	Industrial and Commercial Bank of China (ICBC), Bank of China (BOC), Agricultural Bank of China (ABC), China Construction Bank (CCB)
Local branches of domestic commercial banks	ICBC Guangxi Branch, ICBC Yunnan Branch
Foreign branches of domestic commercial banks	BOC Paris Branch, BOC Limited Manila Branch, Bank of Communications Seoul Branch
Domestic private banks	China Merchants Bank, China Everbright Bank, HuaXia Bank, China Guangfa Bank, Ping An Bank

Policy banks	The Export–Import Bank of China, China Development Bank, Agricultural Development Bank
Rural commercial banks	Tianjin Rural Commercial Bank, Shanghai Rural Commercial Bank
City banks	Bank Of Beijing, Chongqing Commercial Bank,
Subsidiary financial companies of big SOEs	China Huaneng Finance Corporation, COFCO Finance Corporation, CNOOC Finance Corporation, China Power Finance Corporation, Sinopec Finance
Subsidiary financial companies of big private companies	Media Group Finance Corporation, Haier Finance
Foreign banks	Morgan Stanley, BNP Paribas (China), East West Bank (China), Barclays Bank PLC. Shanghai

Source: CFETS

In 2005, a market-making system was introduced on the CFETS. Under this system, a group of participants are designated market makers, assuming the role of facilitating transactions on the exchange. Such institutions play an important part in the smooth functioning of markets as they provide liquidity by being prepared to buy and sell the currencies traded on that market (i.e., during trading hours they always display buy and sell quotations for a minimum number of shares). Financial institutions, either domestic or foreign, applying to be market makers have to hold market membership for two years or longer and pass through another two-year trial period. Basic requirements include a capital adequacy ratio of the entire bank of at least 8 percent in the preceding year (a high ranking in terms of the size of transactions) and clean regulatory compliance records.

There are currently 30 banking institutions serving as market makers in the spot markets, including the big major state-owned banks, policy banks such as China Development Bank, private-owned banks such as Everbright Bank and Minsheng Bank, local-level city banks such as Bank of Shanghai and Nanjing City Bank, and foreign banks such as Bank of America (China), CitiBank (China), and HSBC (China). There are four other foreign banks, such as J.P. Morgan (Shanghai), that are also operating as market makers on a trial basis. The full list is tabulated below.

Table 3-2. Market Makers in the Spot Foreign Exchange Markets

Domestic Banks as RMB/FX Spot Market Makers (19)	Foreign Banks as RMB/FX Spot Market Makers (11)
ICBC, BOC, ABC, CCB, Bank of Communications, China CITIC Bank, China Merchants Bank, China Everbright Bank, HuaXia Bank, China Guangfa Bank, Ping An Bank, Industrial Bank, China Minsheng Banking, China Development Bank, Postal Savings Bank of China, Bank Of Shanghai, Nanjing City Commercial Bank, Bank of Ningbo, Shanghai Pudong Development Bank.	BNP Paribas (China), DBS Bank (China), Bank of America-Shanghai, HSBC Bank (China), Bank of Montreal (China), CitiBank (China), Standard Chartered Bank (China), Sumitomo Mitsui Banking Corporation China, Deutsche Bank (China), Mizuho Bank (China), Bank of Tokyo-Mitsubishi UFJ Ltd. Shanghai Branch.

Source: CFETS

4. China's Domestic Financial Markets

Financial market development in the home country is one of the key determinants of a currency's international status.³⁷ Historically, each reserve currency has risen on the international stage under unique circumstances, spurred by a range of motivations, but one constant is that this rise has always required financial markets that can cope with the varied and voluminous demands of private and official foreign investors. There are three relevant aspects of financial market development:

- *Breadth*: The availability of a broad range of financial instruments, including markets for hedging risk.
- *Depth*: A large volume of financial instruments in specific markets.
- *Liquidity*: A high level of turnover (trading volume).

Without a sufficiently large and liquid debt market, the RMB cannot be used widely in international transactions. To make the currency attractive to foreign central banks and large institutional investors, they will need access to RMB-denominated government and corporate debt as “safe” assets for their portfolios. At the same time, both importers and exporters may be concerned about greater exchange rate volatility resulting from an open capital account if they do not have access to derivatives markets to hedge foreign exchange risk. Thus, depth, breadth, and liquidity are all relevant considerations in assessing the readiness of a country's financial sector to cope with an open capital account and elevate its currency to reserve currency status.

4.1. The Banking System

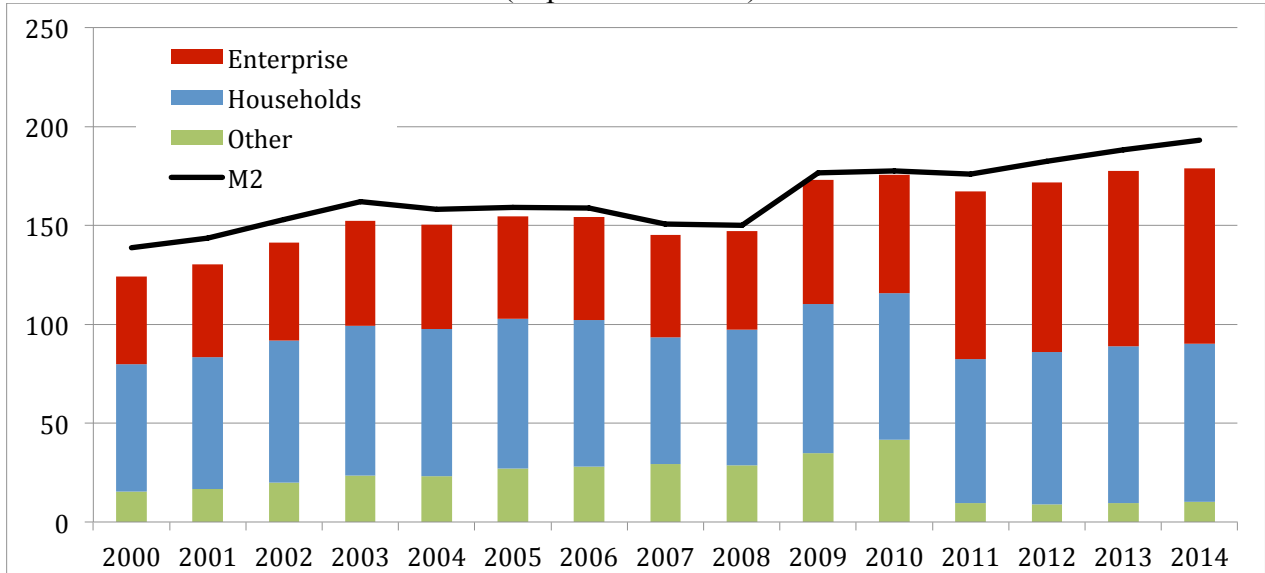
China's financial system remains bank-dominated, with the state directly controlling most of the banking system. Domestic credit allocation is controlled largely by state-owned banks and is disproportionately directed toward enterprises, especially state-owned enterprises, rather than households. Credit allocation through the banking sector is supported by massive deposits in the banking system, amounting to 179 percent of GDP in 2014 (Figure 4-1). Corporate deposits amount to 89 percent of GDP and household deposits are about 80 percent of GDP. The ratio of M2 to GDP was 193 percent in 2014.³⁸

Growth in bank loans and money supply, which hit peaks of 34 percent and 30 percent, respectively, in 2009 as part of the stimulus effort in the aftermath of the global financial crisis, have mostly been in the range of 10–15 percent since 2012 (Figure 4-2). But this is on top of a much bigger base as the credit surge in 2009-10 meant a substantial increase in the stock of outstanding bank loans.

³⁷ On the importance of home country financial market development for a currency to become a reserve currency, see Tavlas (1991), Chinn and Frankel (2007), Forbes (2009), and Obstfeld (2011).

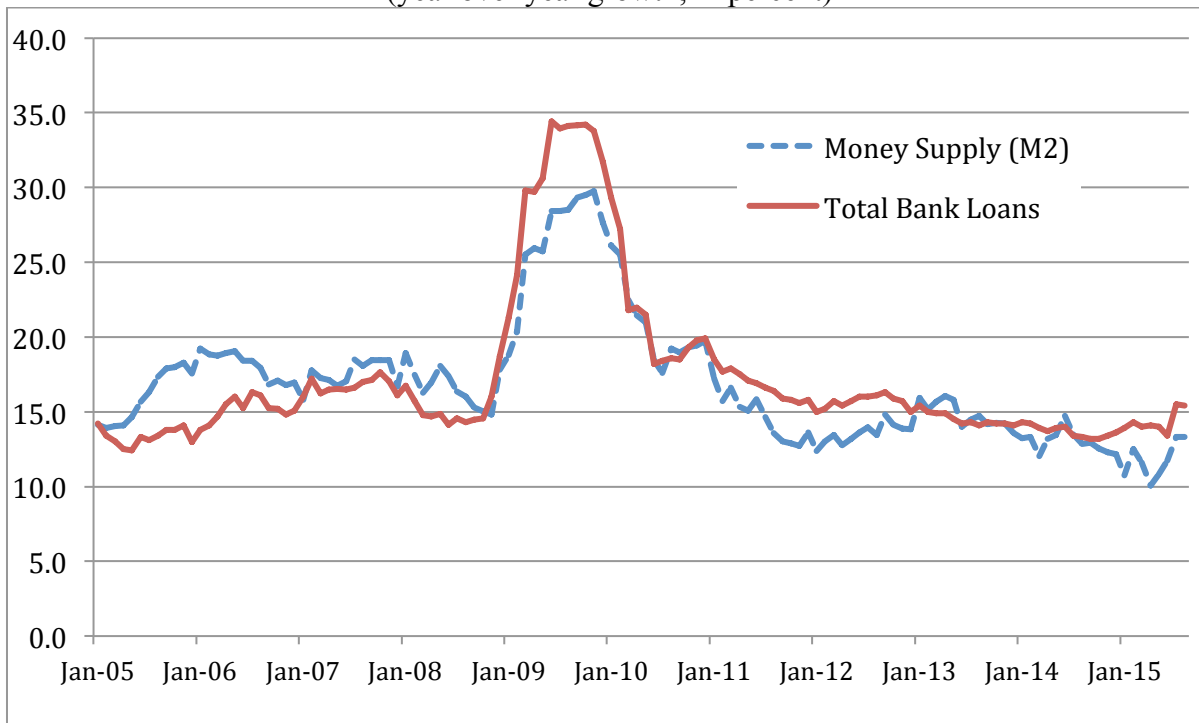
³⁸ M2 is a monetary aggregate that includes cash, demand deposits, savings deposits, retail money market mutual fund shares, and small-denomination time deposits (less than \$100,000).

Figure 4-1. China: Bank Deposits and Money Supply
(in percent of GDP)



Sources: PBC, National Bureau of Statistics via CEIC

Figure 4-2. China: Bank Loans and Money Supply
(year over year growth; in percent)



Source: PBC

The size and structure of the banking sector in China seem unsuitable for promoting the international use of the RMB on a large scale. Policies that favor the banking sector relative to

the rest of the financial system—including the interest rate structure that until recently inhibited competition by setting a floor for lending rates and a ceiling for deposit rates—have been detrimental to broader financial market development.

Recognizing this, the Chinese government has instituted a number of reforms in recent years. Bank deposit and lending rates have now been fully liberalized. Commercial banks can now set these rates freely, although the PBC still sets reference rates to guide banks. An explicit bank deposit insurance program has also been in operation since May 2015. This program is intended to expose banks to some degree of market discipline by replacing the implicit full insurance of all deposits by the government. Deposits are covered up to a ceiling of RMB 500,000, which is roughly 13 times China's per capita income. The deposit insurance system covers 99.6 percent of deposit accounts but only about half of the deposit base. This is because most of the roughly 5 billion bank accounts in China (many households have multiple accounts) have relatively small deposits, while large deposits of corporations, institutions, and wealthy individuals account for the bulk of the deposit base. Participation in the deposit insurance system is mandatory for all deposit-taking institutions, and the premiums are risk-based, with factors such as capital adequacy ratios and corporate governance structures affecting premiums. The system also allows for early intervention by the banking regulator and has an improved resolution mechanism for failing banks. Since the system is relatively new, there have been no test cases as yet.

These reforms are important steps in the right direction. Future reforms and development of the banking system will have significant implications for the development of China's more nascent financial markets, including the corporate bond market (Hale, 2007), and also for economic development more broadly. The credit distortions in the banking system have hampered the development of a more competitive domestic private enterprise sector. It will be difficult to achieve a liquid debt market without more active participation from private firms as well as households.

4.2. Shadow Banking³⁹

Shadow banking refers to financial activities outside the normal banking system. The Financial Stability Board describes it as involving credit intermediation through entities and activities outside the regular banking system. This definition implies that banks can also engage in shadow banking activities that are outside their traditional roles of deposit-taking and loan creation.

China's shadow banking sector has expanded rapidly as a way around many of the regulations imposed on the formal banking system including (until recently) controlled interest rates, a high level of reserve requirements on bank deposits, and rising demand for financial intermediation services that are not satisfied by traditional institutions or conventional banking products (both for savings and credit).

Definitions of the shadow banking system vary, but the major categories of credit that fall under its rubric include:

³⁹ The discussion and data in this section draw on IMF (2015), Elliott, Kroeber, and Qiao (2015), and Jiang (2015).

- *Entrusted loans*: Loans that involve nonfinancial corporates as borrowers and lenders, with banks acting as intermediaries but bearing none of the credit risks.
- *Trust loans*: Financial transactions undertaken by trust companies that are regulated separately from banks and have some characteristics of banks and fund managers.
- *Bank acceptances*: Instruments issued by banks that commit to pay a fixed amount in a given period and that are backed by deposits of the party seeking these certificates. These certificates can in turn be used to back commercial transactions.

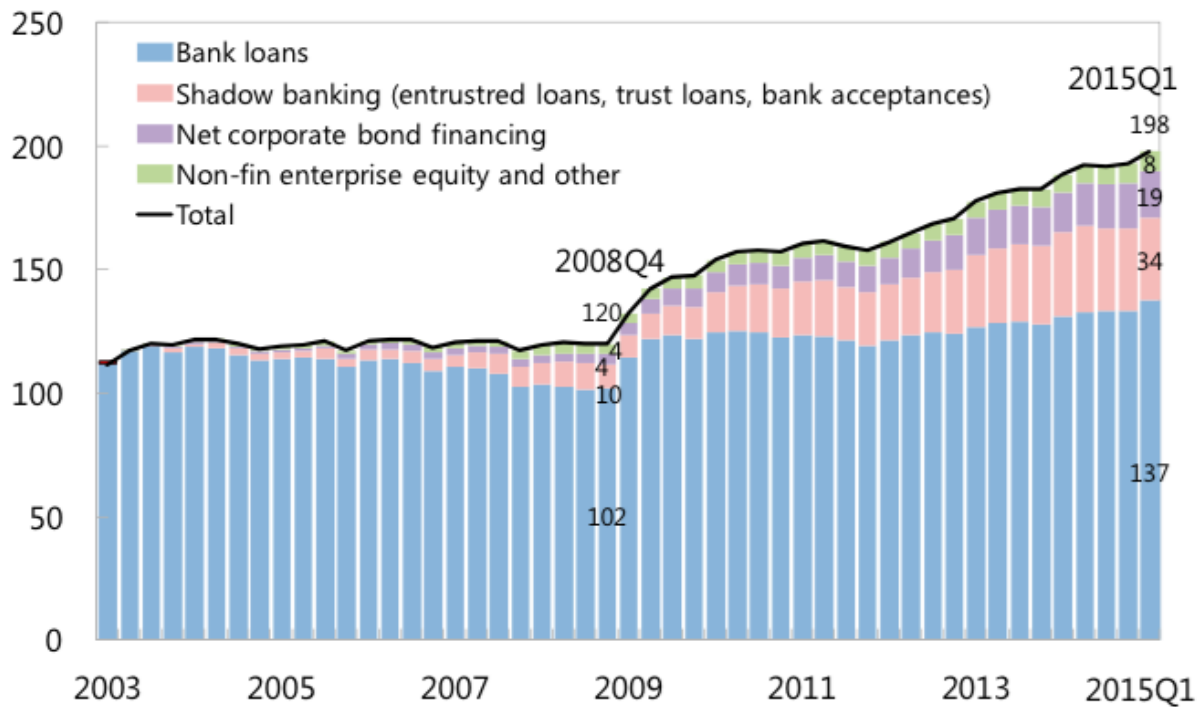
There is a range of other instruments that are also often included in definitions of the shadow banking system, including wealth management products (WMPs) that offer higher returns than traditional bank deposits and that can even be offered by banks themselves. Other credit instruments include guarantees, peer-to-peer lending, financial leasing, and also credit provided by pawnshops and other unofficial lenders.

By the IMF's conservative definition, which comprises the three main items noted above (entrusted loans, trust loans, and bank acceptances), China's level of social financing is currently about 34 percent of GDP (Figure 4-3). Broader definitions of shadow banking that include other items, even on occasion including corporate bond markets, can lead to substantially higher estimates of the size of China's shadow banking system. Even by these broader estimates, the shadow banking system is not large relative to that in many advanced economies, although its growth rate in China in recent years is certainly among the highest in the major economies. A recent paper from Columbia University estimates that based on figures from Moody's shadow banking assets amount to 65 percent of GDP in China, compared with 150 percent in the United States and a world average, weighted by country size, of about 120 percent.⁴⁰

Table 4-1 shows an alternative breakdown of total social financing (TSF), a measure that includes bank loans, shadow banking, corporate bond financing, and other forms of credit. This concept provides a useful measure of broader developments in credit creation in the Chinese economy since the relative importance of bank loans in overall credit has been declining. The stock of TSF amounted to 193 percent at the end of 2014.

⁴⁰ See Jiang (2015).

Figure 4-3. Social Financing
(in percent of GDP)



Source: IMF Staff Report on China, 2015

Note: In percent of four quarter rolling sum of quarterly GDP.

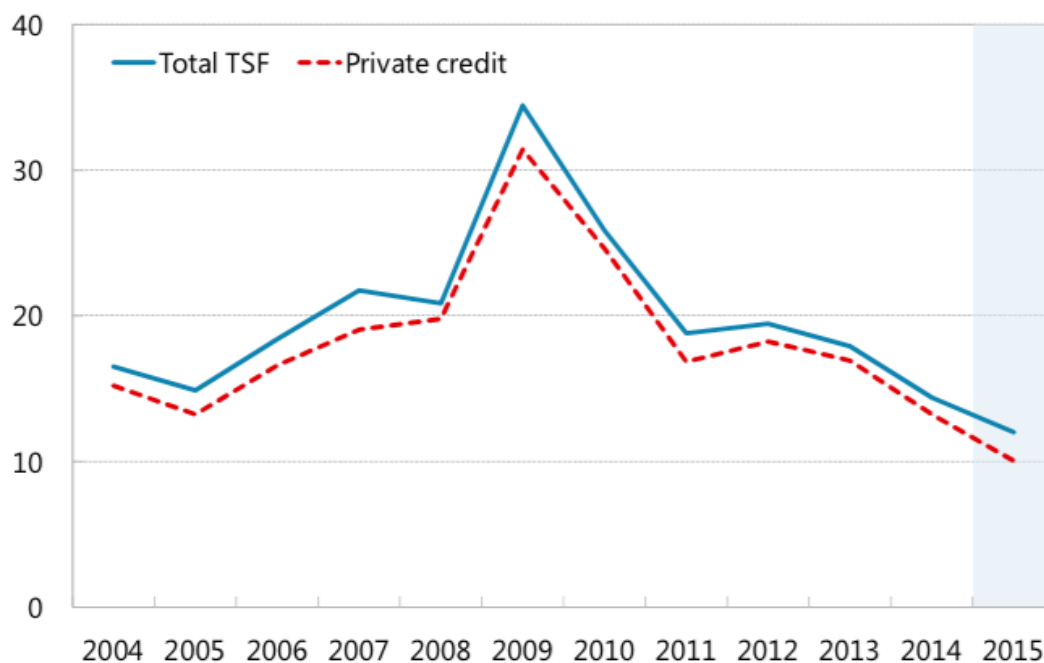
Table 4-1. Total Social Financing Components
(in percent of GDP)

	2003	2008	2014	2008-2014
TSF	119.2	119.9	193.0	73.1
Equity	1.0	4.0	6.0	1.9
LGFV	11.5	16.1	37.1	21.0
Private Credit	106.7	99.8	150.0	50.2
Corporate	88.9	81.7	113.6	31.9
Household	17.8	18.0	36.4	18.4

Source: IMF Staff Report on China, 2015

Figure 4-4 shows that growth rates of private credit and total social financing have followed a similar trajectory in recent years. Total social financing growth has fallen sharply from a peak of about 34 percent in 2009 to 12 percent in mid-2015.

Figure 4-4. Total Social Financing and Private Credit
(in percent, year-on-year)



Source: IMF Staff Report on China, 2015

Concerns about the financial stability risks posed by the growth of shadow banking have prompted the Chinese authorities to impose stricter regulation of shadow banking activities, both by banks and nonbank financial entities. Off-balance sheet activities by the commercial banks could affect their risk profiles. While trust companies and other nonbank financial entities are not backed by the government, their liabilities pose broader risks as they could become liabilities of the state. Concerns that the failure of any such institution could undermine confidence in the overall financial system implicitly result in government backing of these institutions, which in turn allows them to expand their balance sheets with limited regulatory oversight.

In December 2013, the State Council issued an internal document (Circular No. 107) laying out conceptual issues regarding the scope of shadow banking, associated regulations, and their policy implications. The document mainly set out broad principles, and it took time for rules to be promulgated and for concrete implementation measures to be put in place. With rising concerns about the financial stability implications of the shadow banking sector, various regulatory concerns have stepped up their oversight of this sector. Much of this attention has been focused on WMPs. A selected set of key regulatory measures instituted following the issuance of the State Council guidelines is as follows:

- Commercial banks are required to establish a specific department for WMPs and to set up a specific accounting system for these products. Funds raised by WMPs are not to be used to invest in own lending assets.⁴¹
- Trust companies are subject to the following regulations, which means that companies are: (i) forbidden from conducting “fund pools” business, a common practice that enabled these companies to finance cash payouts by selling new WMPs; (ii) required to reduce lending when their capital levels fall due to losses; and (iii) required to establish a mechanism for managing crises, including delaying executives’ incentive compensation, restricting dividend payouts, and disposing of some businesses.⁴²
- CBRC imposed a minimum asset requirement of RMB 3 billion (about \$475 million) and restricted the scope of trust funds that can be invested in by insurance companies. Imposed system restrictions on interbank operations, such as repos and interbank borrowing/lending, and also set capital, accounting, and maturity requirements on interbank operations.⁴³
- Commercial banks are required to report WMP operations to CBRC, starting at the end of July 2014.⁴⁴
- CBRC assigns grades to trust companies and implements discretionary regulation rules depending on their grades.⁴⁵
- CIRC highlighted the risks of insurance investment in trust funds and required insurance companies to comply with the regulation rules.⁴⁶
- The trust industry insurance fund company is jointly established by China Trustee Association and 13 trust firms, with registered capital of nearly RMB 10 billion (about \$1.5 billion). Trust companies are required to subscribe to the insurance fund in an amount equal to one percent of assets under management. The fund is to be used in emergencies for providing short-term liquidity and assisting in the restructuring of a distressed trust company.⁴⁷
- Commercial banks are barred from bearing credit risks for entrusted loans. Entrusted loan investments in securities, futures, stocks, and financial derivatives are prohibited.⁴⁸

As a result of these measures, the flow of total social financing has fallen sharply, led by a decline in shadow banking (Figure 4-5). In some recent months, the flow of credit associated with shadow banking has been small or even negative. This trend can also be seen in Figure 4-6, which shows that the fall in total social financing on a year-over-year basis is closely tracked by the fall in the contribution of shadow banking to overall growth in financing.

⁴¹ CBRC, February 2014.

⁴² CBRC, April 2014.

⁴³ CIRC, May 2014.

⁴⁴ CBRC, June 2014.

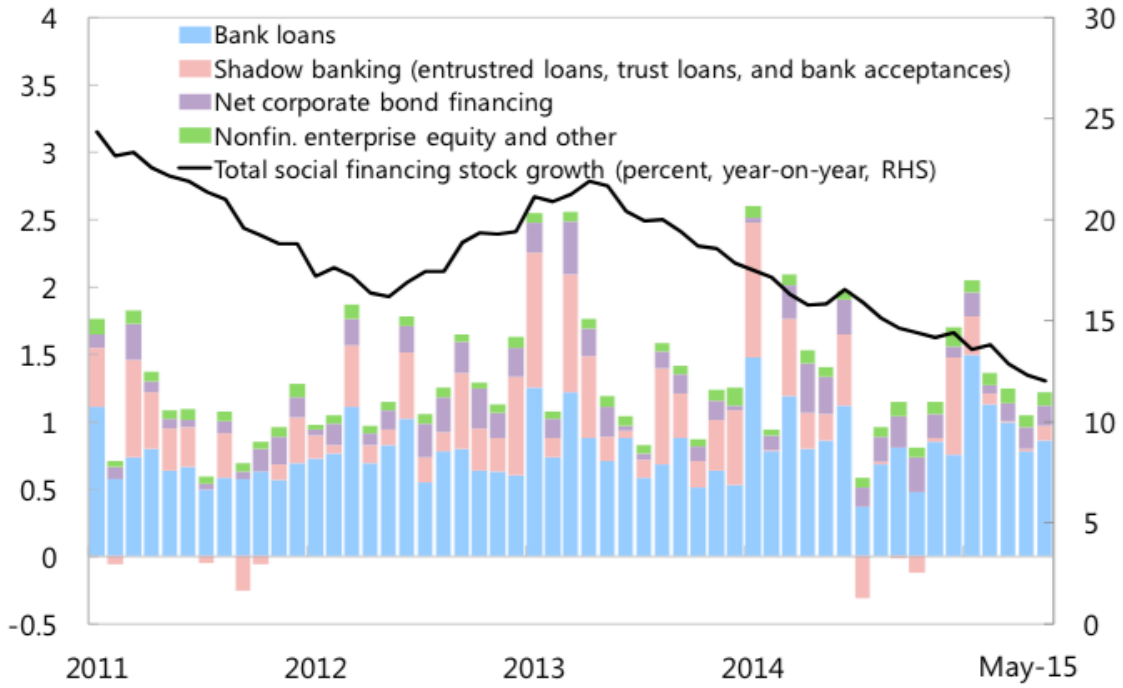
⁴⁵ CBRC, August 2014.

⁴⁶ CIRC, October 2014.

⁴⁷ CBRC, December 2014.

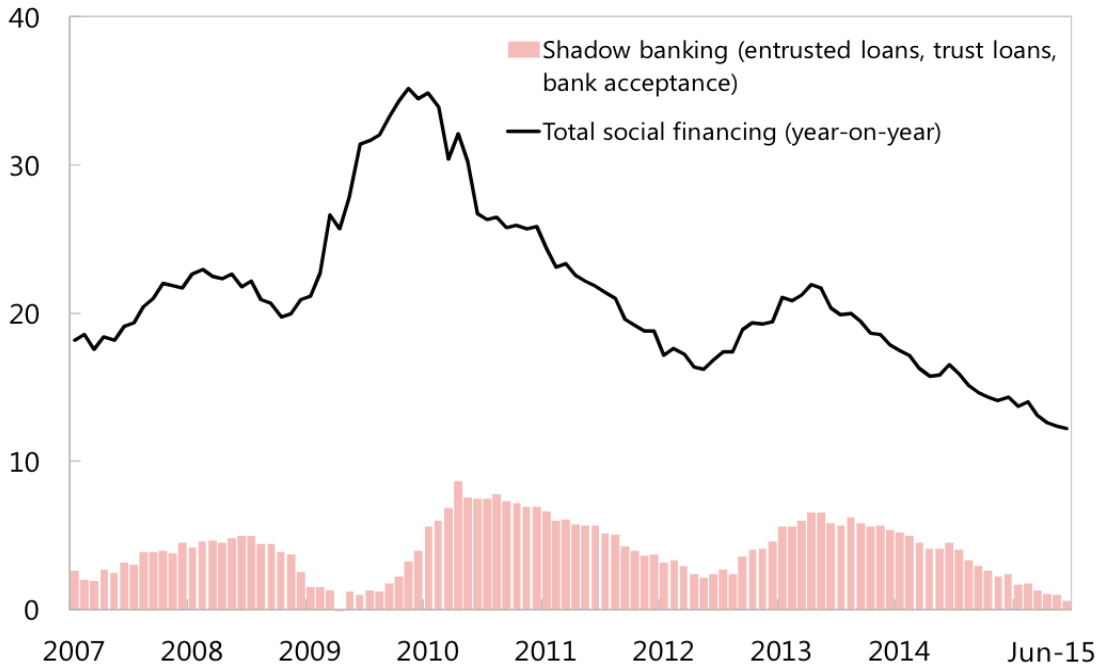
⁴⁸ CBRC, January 2015.

Figure 4-5. Social Financing Flow
(in trillions of RMB)



Source: IMF Staff Report on China, 2015

Figure 4-6. Social Financing Stock
(in percent, contribution to growth)



Source: IMF Staff Report on China, 2015

Although it is seen as a dangerous part of the financial system, the shadow banking system does have the potential to play a useful role in improving the allocation of resources in the economy. In particular, many private corporations, including small and medium-sized enterprises, rely on this system for the credit that they are unable to procure from traditional banks. WMPs, despite their inherent risks, have also been seen as a means of indirect liberalization of deposit rates. A better-regulated shadow banking system could complement the activities of the traditional banking sector and also catalyze changes and efficiency improvements in that sector.

But shadow banking is nontransparent and has no formal safety backstops, such as the support of a deposit insurance mechanism. The lack of tight regulation of many shadow banking activities, in tandem with the assumption on the part of many market participants that there is an implicit government guarantee backing these activities, could be a dangerous combination. The government has endeavored to disabuse market participants of this notion, including by its willingness to consider allowing trust companies and other institutions to fail. In its present form and at current levels, it is unlikely that the shadow banking system by itself poses significant threats to overall financial stability. Nevertheless, the government has been concerned that risks in this sector could translate into vulnerabilities in the formal banking system (given the connections between the two sectors through products such as WMPs) and therefore continues to monitor developments in this sector with considerable apprehension.

4.3. Equity Markets

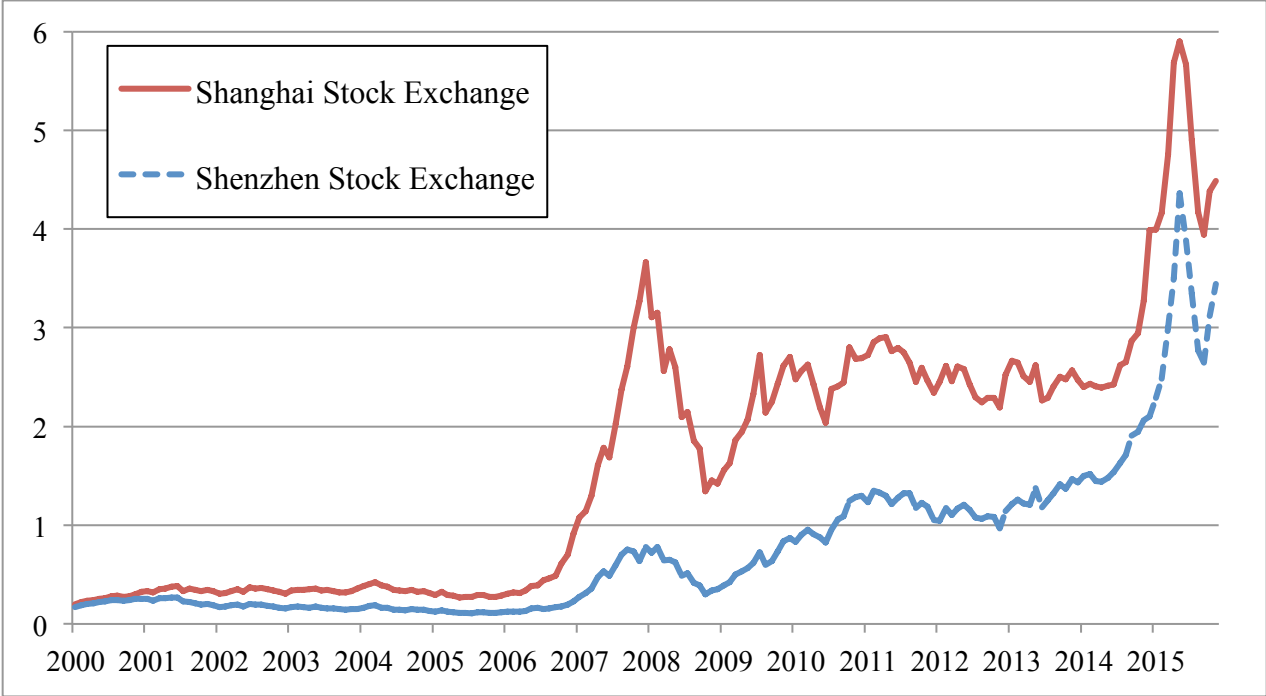
One dimension along which China has made progress is the development of its equity markets. There are two main exchanges in China—Shanghai and Shenzhen—and two classes of shares traded on both markets. A shares are denominated in RMB and, until 2002, foreign investors could not purchase these shares. B shares have a face value in RMB but are listed for trading primarily to foreign investors in foreign currency (in U.S. dollars on the Shanghai exchange and in Hong Kong dollars on the Shenzhen exchange). Local Chinese companies can issue both types of shares, although B shares tend to trade at a discount relative to the same company's A shares.⁴⁹ This is due, in part, to the A share market's much larger trading volumes. In 2001, the B share market was opened to domestic investors with foreign currency accounts. Since 2002, when the QFII scheme was introduced, foreign investors have had access to the A share market.

Until 2005, about two-thirds of the stock market in China was composed of non-tradable shares, which were owned directly by the government or state-owned financial institutions. In that year, reforms were introduced to allow non-tradable shares in Chinese companies to float freely. These reforms had a dramatic effect. Market capitalization started to rise after these reforms, surging sharply in 2007 before the financial crisis of 2008-2009 led to a sharp decline (Figure 4-7). Trading volumes on both exchanges (turnover) also began to rise in the aftermath of the reforms. Capitalization and turnover in Chinese equity markets now exceed those of most other economies—with the notable exception of the United States, which remains dominant in terms of its share of global equity market capitalization and turnover. The number of listed firms on the

⁴⁹ With government approval, Chinese companies can also list on the Hong Kong exchange, where their share prices are quoted in Hong Kong dollars. These instruments are called H shares.

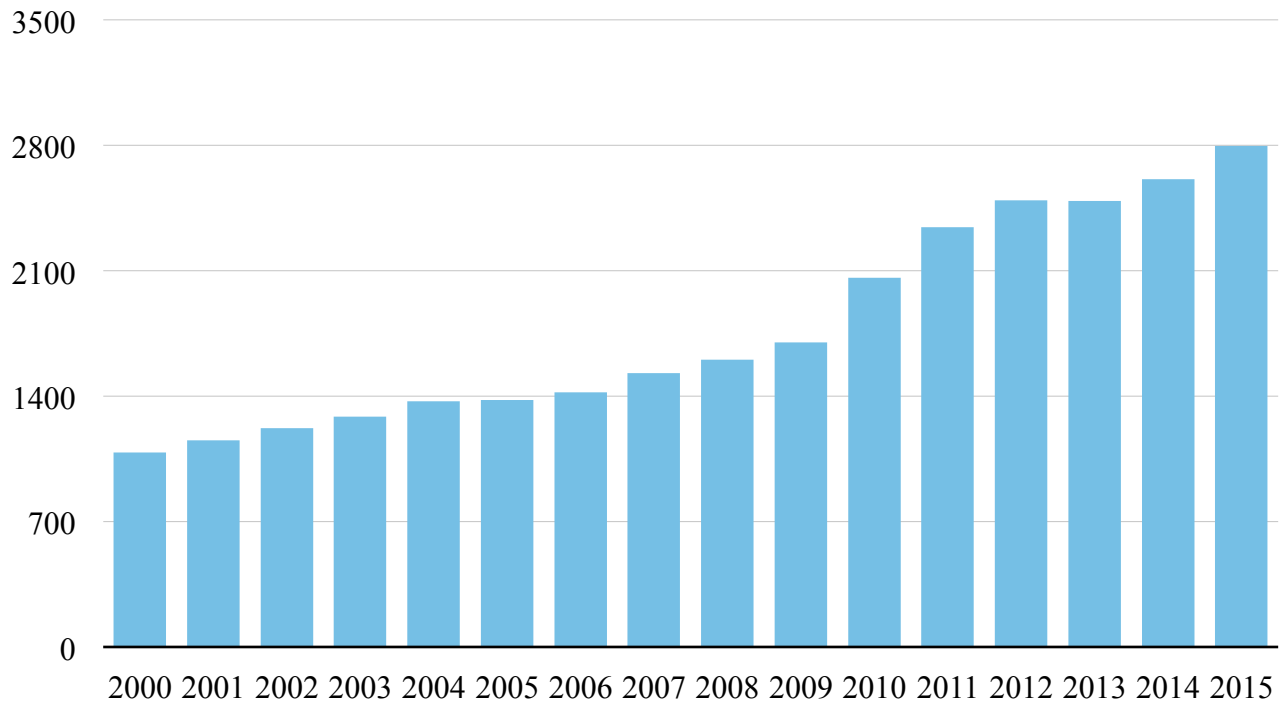
Shanghai and Shenzhen stock exchanges has increased steadily from 1,086 in 2000 to 2,799 as of November 2015 (Figure 4-8).

Figure 4-7. Stock Market Capitalization
(in trillions of U.S. dollars)



Sources: Shanghai Stock Exchange, Shenzhen Stock Exchange, and SAFE via CEIC

Figure 4-8. The Number of Listed Companies in China's Stock Markets



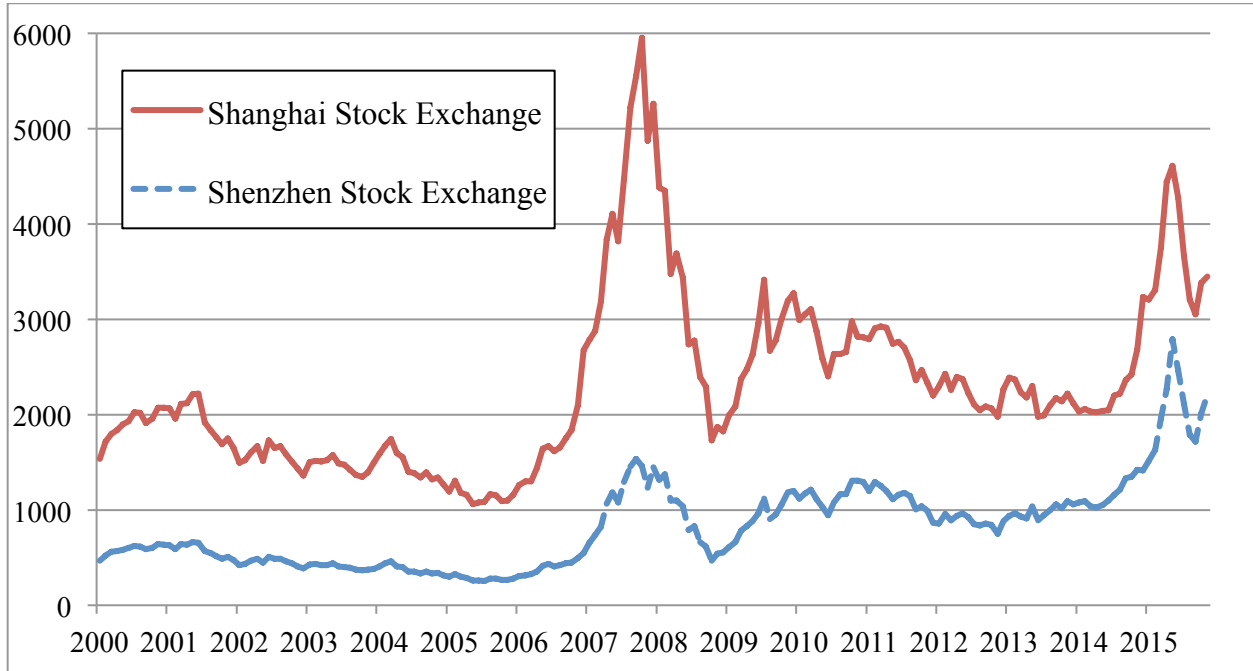
Source: CEIC

Notes: The data shown above, which comprise listed companies on both the Shanghai and Shenzhen exchanges, are for the end of each year. Data for 2015 are for November.

Equity markets do, in principle, provide RMB-denominated instruments that can be held by both domestic and foreign investors and, as noted in Chapter 2, there is an increasing number of channels in which foreign investors can participate, even in China's A share market. The level of foreign investor participation remains limited, however, relative to overall stock market participation because of restrictions on foreign equity investments.

Moreover, Chinese stock markets are highly volatile. Starting in early 2014, both stock market indexes began to rise sharply and more than doubled in just over a year. Despite some regulatory measures taken in early 2015 to limit margin lending (loans that are used to invest in stocks), the stock market run continued until June 2015 (Figure 4-9). With regulatory tightening and rising concerns about an economic slowdown, stock prices then began to plummet from their peak.

Figure 4-9. Shanghai and Shenzhen Stock Market Indices



Sources: Shanghai Stock Exchange and Shenzhen Stock Exchange via CEIC

This prompted a series of measures by the government to limit the stock market turmoil. Some of these measures were heavily interventionist and, although described as emergency measures, they have hurt the credibility of the government and created doubts about its attitude toward market-oriented reforms. The measures included propping up stock prices and also limiting activity that could push down prices.⁵⁰

The key measures that were taken to mitigate downward pressures on stock prices include:

- Limitations on short selling, with the CSRC threatening to arrest those engaged in “malicious short selling”
- A ban on initial public offerings for four months starting in July
- Suspension of trading in the shares of over a thousand firms
- A six-month ban on stock sales by stockholders with a 5 percent or higher equity stake in a given company

Measures to prop up prices through direct intervention include:

⁵⁰ See, for instance, “China Security Ministry to probe ‘malicious’ short selling,” Bloomberg, July 8, 2015; “China rolls out emergency measures to prevent stock market crash,” Reuters, July 5, 2015; “China central bank pledges liquidity support to stock market,” Bloomberg, July 7, 2015; “China stock exchanges step up crackdown on short-selling,” Reuters, August 4, 2014; “China punishes nearly 200 over ‘rumors’ about stocks, blasts and parade,” *New York Times*, August 31, 2015; “China reporter confesses to stoking market ‘panic and disorder,’” *Financial Times*, August 31, 2015. Official documents include: “Notice on Modifying Article 15 of ‘SSE Detailed Rules for Implementation of Margin Trading and Securities Lending (Revised in 2015)’ ”(Shanghai Stock Exchange, August 3, 2015); “SZSE Amends Rules for Margin Trading and Securities Lending” (Shenzhen Stock Exchange, August 4, 2015).

- New rules allowing pension funds to invest up to 30 percent of their net assets in equities (previously, pension funds could not invest in equities)
- Relaxation of rules on margin financing
- Giving banks permission to make corporate loans using equity as collateral
- A PBC pledge to lend RMB 250 billion (\$40 billion) to major brokerage firms through the China Securities Finance Corporation to help them cope with liquidity shortages
- State-owned funds and institutions encouraged to buy stocks

Other propaganda measures included news articles in official media blaming “foreign forces” for the stock market turbulence. In addition, nearly 200 people were arrested for allegedly spreading false information that caused the market crash. Those arrested included financial practitioners, regulatory officials, and also financial journalists.⁵¹

The government’s other actions to stabilize the market have not inspired confidence either. On January 4, 2016, the CSRC introduced a circuit breaker mechanism in the Chinese stock market.⁵² This led to a negative reaction in markets, with the main indexes plunging by about 14 percent over the next three days. The circuit breakers were activated multiple times during that period, worsening the sell-off as many market participants tried to sell their holdings before the circuit breakers were activated. The circuit breaker was deactivated three days after its introduction.⁵³

Chinese stock markets have been prone to concerns about weak corporate governance, limited transparency, weak auditing standards, and shoddy accounting practices. In the absence of broad institutional and regulatory reforms that are necessary to support effective price discovery and the overall efficient functioning of stock markets, these markets could remain unstable.⁵⁴ The recent volatility in the stock market and the manner in which the government has addressed it has heightened many of these concerns. As a consequence, even with more liberalization of portfolio inflows, international investors may shy away from investing heavily in Chinese equities. Therefore, the country’s deep equity markets may be of limited help in promoting the international role of the RMB.

4.4. Debt Markets

China’s fixed income markets, especially for corporate debt, have developed considerably in the last few years (Table 4-2). The stock of government bonds stands at about \$3.5 trillion, nearly a fivefold increase over the last decade and now equivalent to about one-third of GDP. Nonfinancial corporate debt was practically nonexistent a decade ago, but the outstanding stock has now risen to about \$1.5 trillion. Turnover, a measure of trading volume, remains quite low in both markets, however. China has maintained a number of restrictions on foreign investors’ participation in its bond markets, which could adversely affect the RMB’s efforts to become a

⁵¹ “China punishes nearly 200 over ‘rumors’ about stocks, blasts and parade,” *New York Times*, August 31, 2015.

⁵² “China’s latest step to curb stocks’ wild ride: Circuit breakers,” CNBC.com, January 4, 2016.

⁵³ “China Suspends Stock Circuit Breaker Days After Introduction,” *Bloomberg News*, January 7, 2016.

⁵⁴ See Eswar Prasad, “China’s Fitful Economic Reforms,” *The International New York Times*, December 2, 2015. <http://www.nytimes.com/2015/12/02/opinion/chinas-fitful-economic-reforms.html>.

reserve currency. In recent years, China has started creating channels, including through the QFII scheme, for foreign institutional investors to purchase both government and corporate debt securities in China.

Table 4-2. Government and Corporate Bonds in China: Stocks and Turnover

Year	Government Bonds			Corporate Bonds		
	Level (USD billions)	Turnover (USD billions)	Turnover Ratio	Level (USD billions)	Turnover (USD billions)	Turnover Ratio
2002	328	...	...	7	...	...
2003	424	...	...	12	...	...
2004	570	...	...	22	...	...
2005	788	...	...	54	...	...
2006	1,038	...	...	98	...	...
2007	1,426	...	...	140	...	...
2008	1,898	...	...	230	...	...
2009	2,062	...	...	427	...	...
2010	2,349	...	...	618	...	...
2011	2,459	...	...	797	...	...
2012	2,725	...	...	1,176	...	...
2013	2,952	496	0.17	1,416	263	0.18
2014	3,341	1,053	0.31	1,543	306	0.20
2015	3,515	1,885	0.54	1,570	425	0.27

Source: AsianBondsOnline, Asian Development Bank, and author's calculations

Notes: Turnover is defined as the value of bonds traded on the secondary market. Turnover ratio is defined as total turnover divided by the average value of bonds outstanding between the end of the third and fourth quarters of each year. Repurchase transactions are excluded. Corporate bonds include those issued by nonfinancial and financial corporations. The BIS revised the compilation methodology for debt securities statistics in 2012. While the revised stock data on outstanding bonds are consistent over time, recent turnover data are not consistent with data prior to 2013, so data for prior periods are not shown. An ellipsis indicates missing data (based on the revised statistics). Data for 2015 are for June of that year.

China's overall domestic debt market was valued at \$5 trillion in 2014, significantly lower than the top three reserve currency areas—the United States, Japan, and the euro area (Table 4-3). The U.S. domestic debt securities market has a capital value four times that of China. Interestingly, the quantity of China's outstanding domestic securities is greater than that of the United Kingdom and Switzerland, two reserve currency economies.⁵⁵ This suggests that the size of the domestic debt market per se does not necessarily prevent the Chinese currency from going global. However, the degree of turnover in China's government and corporate bond markets is low, indicating that the liquidity of debt markets in China does not measure up to that of other reserve currency economies' debt markets. This is an important consideration for foreign

⁵⁵ See Prasad and Ye (2012).

investors, who typically like to invest in markets where they can easily execute large trades without concern that those trades may themselves move prices in an unfavorable direction.

Table 4-3. Stocks and Turnover of Government and Corporate Bonds:
A Cross-Country Perspective

	Government			Corporate		
	Amount Outstanding	Turnover	Turnover Ratio	Amount Outstanding	Turnover	Turnover Ratio
U.S.	13,063	127,739	9.8	7,718	5,368	0.7
Japan	8,216	11,103	1.4	670	37	0.1
Euro area	8,126	-	-	3,655	-	-
China	3,515	1,885	0.5	1,570	425	0.3
Germany	1,356	5,919	4.4	267	-	-

Sources: Statistical Abstract of the United States, Securities Industry and Financial Markets Association (SIFMA), European Central Bank, Bundesbank, The Federal Financial Supervisory Authority, AsianBondsOnline, CEIC data, Securities and Exchange Board of India, and author's calculations
Notes: Data shown in this table are for 2014. The data shown here do not include debt securities issued by monetary financial institutions such as central banks. Government bonds include both central and general government debt. The value of government and corporate bonds outstanding and turnover are expressed in billions of U.S. dollars. Corporate bonds for China, the euro area, Germany, and Japan include those issued by nonfinancial and financial corporations.

China's aspirations to make the RMB a global reserve currency rest in large part on the pace of development of its fixed-income markets. Reserve currency economies are expected to issue high-quality and creditworthy government debt or government-backed debt instruments that can serve to hedge against foreign investors' domestic currency depreciation during a global downturn. The current level of government debt in China is relatively low compared with existing major reserve currency areas. While the low level of debt provides more credibility for the government's fiscal and inflation control policies, the limited supply of safe and liquid RMB-denominated assets is a constraint on the RMB's ascendancy to reserve currency status. The recent growth of China's debt markets suggests that the pace of the country's financial market development is consistent with its intention to gradually increase acceptance of its currency as an international currency.

4.5. Summary: Financial Markets Remain a Weak Link

China's financial markets have improved in some respects during the last decade, but there are still significant gaps, especially in terms of achieving sufficiently large and liquid debt markets. More importantly, the structure and quality of debt markets will also need to be improved to fully prepare for a currency used widely in international financial transactions and reserve holdings. With relatively low external and government debt positions, China's debt markets can in principle expand rapidly without serious threat to inflation credibility or vulnerability to external risks. Effective regulation of corporate debt markets is an important priority, so these markets can expand without generating financial instability. Moreover, to satisfy their demand

for relatively safe RMB-denominated assets, foreign investors—both official and private—will eventually need to be given greater access to China’s debt markets if the RMB is to become a true international currency.

The main conclusion of this chapter is that China has made significant progress in many areas but still falls short along some key dimensions of financial market development. The government’s efforts to aggressively promote the RMB’s international role are likely to be impeded over the medium term by the weaknesses of China’s financial system.

From a broader perspective, however, it is important to keep in mind that, during the past two years, the government has been making progress—slow and uneven in many ways, but progress nonetheless—on financial sector reforms that are essential for China to better manage its economy and allocate its massive pool of savings to more productive investment opportunities.

The government has fully freed up interest rates on bank deposits and loans (although the PBC still sets reference rates). The implicit backing of all bank deposits by the government has been replaced with an explicit deposit insurance system, exposing even state-owned banks to more market discipline since depositors are now more likely to pay attention to the financial condition of banks they keep their savings in. A great deal remains to be done to ensure the stability and resilience of China’s financial system. There are certainly many regulatory gaps that still exist in different parts of the financial system; in addition, rising levels of corporate debt and the proliferation of the shadow banking system all pose risks to financial stability. The government’s heavy-handed intervention in both the equity and currency markets to restore stability has hurt confidence and generated additional uncertainty about the true nature of these markets.

The fundamental question that China’s policymakers face is whether they will back up their commitment to financial sector reforms with broader reforms that will truly free up markets and support them with a strong institutional foundation. Otherwise, the inherent contradictions in trying to free up markets while maintaining state control may cause well-intentioned reform efforts to backfire, simply creating more volatility and generating few of the intended benefits.

5. International Use of the RMB

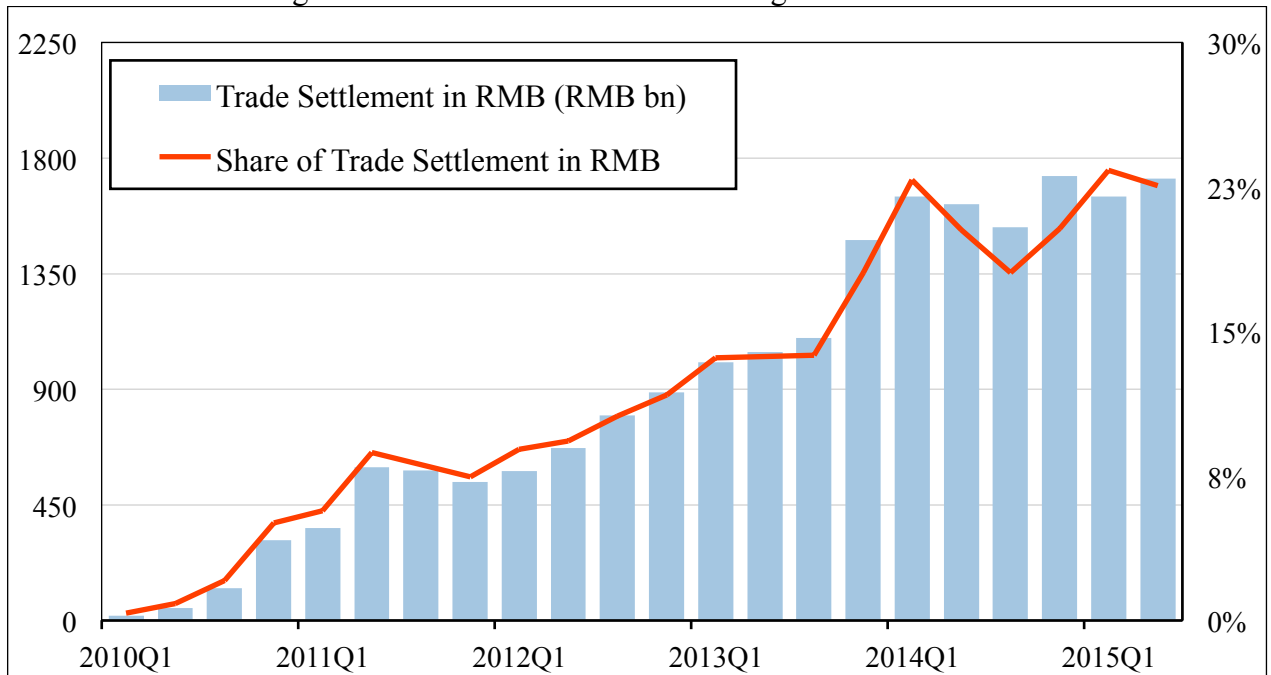
This chapter provides a quantitative evaluation of the RMB's rising prominence as an international currency. In the mid-2000s, China began to promote the international use of the RMB, but with its customary cautious and gradual approach. With its sophisticated financial markets, along with strong supervisory and other institutions, Hong Kong provided a perfect testing ground for these policy reforms. Meanwhile, its status as an international financial center means that Hong Kong could actively help build up the RMB's role, at least in Asia.

As early as 2004, personal RMB business had been initiated in Hong Kong by allowing residents there to open deposit accounts denominated in RMB. In 2007, China began to take a number of additional steps to promote the international use of its currency, in most cases using Hong Kong as the platform including:

- Permitting the settlement of trade transactions with RMB
- Easing restrictions on cross-border remittances of RMB for settlement
- Allowing the issuance of RMB-denominated bonds in Hong Kong and other offshore financial centers
- Permitting selected banks to offer offshore RMB deposit accounts

Given China's rapidly expanding trade volumes, promoting greater use of the RMB in trade settlement was a logical first step in the currency's internationalization process. In a relatively short period, cross-border trade settlement in the Chinese currency expanded rapidly. Figure 5-1 shows that trade settlement in RMB was \$1.72 trillion in the first quarter of 2015, amounting to roughly 23 percent of China's trade. Virtually all of the trade settled using the RMB involves China. The rapid rise in the share of China's trade settled using RMB came to a halt in early 2014, which may be related to the lower appreciation pressures on the currency since that period.

Figure 5-1. Settlement of China's Foreign Trade in RMB



Sources: PBC, SAFE

Notes: The bars show the value of trade settlement in RMB (billions of RMB, left scale). The solid line shows the share of China's trade settled in RMB (in percent, right scale).

To support RMB settlement, the Hong Kong Interbank Market initiated an RMB settlement system in March 2006 in order to provide a variety of services such as check clearing, remittance processing, and bankcard payment services. RMB clearing transactions were virtually at zero until mid-2010, when financial institutions in Hong Kong were allowed to open RMB-denominated accounts. RMB activities in Hong Kong are supported by a sizable RMB liquidity pool, which is the largest outside mainland China. At the end of 2014, RMB customer deposits and certificates of deposit issued by banks in Hong Kong together amounted to over RMB 1.1 trillion (\$170 billion). RMB financing is also available in Hong Kong in the form of bank loans. The outstanding amount of RMB loans in Hong Kong was RMB 188 billion (\$30 billion) at the end of 2014.⁵⁶

Another major development is the rising issuance of RMB-denominated bonds, better known as dim sum bonds, in Hong Kong. The outstanding stock of these bonds had a value of RMB 381 billion (\$59 billion) at the end of 2014, making Hong Kong by far the largest RMB bond market outside the mainland. Other RMB bond markets include Singapore, Taiwan, and the United Kingdom. Figure 5-2 shows the stock of outstanding bonds, which grew more slowly in 2014 than in previous years, reflecting that the issuance of new bonds has slowed. This slowdown might indicate shifting expectations about RMB appreciation. About 42 percent of the outstanding stock of RMB bonds at the end of 2014 was accounted for by mainland government agencies, banks, and enterprises. It is worth noting that about 40 percent of RMB bond issuers in Hong Kong are entities incorporated overseas (outside the mainland and Hong Kong).

⁵⁶ Some of the figures in this paragraph and the next are taken from the Hong Kong Monetary Authority's publication, "Hong Kong: The Premier Offshore RMB Business Centre," April 2015.

Multinational companies from countries such as Germany, South Korea, and the United States apparently view these bonds as an affordable way to raise RMB funds that can in principle then be used to fund investments and other operations in China.

Figure 5-2. Dim Sum (RMB-Denominated) Bonds



Source: Hong Kong Monetary Authority RMB Booklet, April 2015

In October 2015, the PBC for the first time issued offshore one-year RMB bonds in London in the amount of RMB 5 billion (approximately \$800 million). The PBC noted that this was its first ever offshore RMB bond issuance and that this would help promote the offshore use of the currency as well as cross-border trade and investment. Press reports indicate that China’s Ministry of Finance is preparing to issue longer-dated RMB bonds in London in the near future.⁵⁷

With the initiation and rapid expansion of several elements of the offshore RMB market, the currency has been gaining a significant foothold in Asia’s trade and financial transactions. Since 2012, the government has initiated a new and more potent set of measures to increase offshore RMB use. The remainder of this chapter describes one of the major developments since 2012—the rising number of offshore RMB clearing centers. This is followed by a quantitative assessment of the RMB’s rising prominence as a payment currency and its somewhat more limited progress in international financial transactions.

⁵⁷ See “China completes first London debt sale,” *Financial Times*, October 20, 2015.

5.1. Offshore Clearing Centers

The RMB's broad international use will be determined to an important extent by how much RMB liquidity is available offshore and how many financial centers are authorized to serve as clearing centers for RMB transactions. The Chinese government has taken a number of measures in recent years to promote the RMB's international use by increasing the number of international financial centers authorized to do RMB business and by making it easier to settle transactions abroad in RMB.

Table 5-1 shows that a total of 15 financial centers now serve as Chinese government-approved offshore centers for clearing RMB transactions. The list spans a wide geographic distribution of countries, with only five of them in Asia (Singapore, Taiwan, Thailand, South Korea, and Malaysia). Three major European financial centers—Frankfurt, London, and Paris—joined the list in 2014. Two Latin American countries—Chile and Argentina—are the latest additions. Japan and the United States are prominent absences. Given China's strong interest in promoting the RMB's international use, this is probably due to lack of interest from these two countries' governments and regulatory agencies.

Table 5-1. Recent Offshore RMB Clearing Arrangements
(excluding Hong Kong and Macao)

Country	Date Signed (Date of Bank Appt)	Bank Appointed	Transaction Amount	Share of Payment Value
Singapore	July 6, 2012 (Feb 8, 2013)	ICBC	10 trillion+ ¥ (April 8, 2014)	6.9%
Taiwan	Aug 31, 2012 (Dec 11, 2012)	Bank of China	3.1 trillion ¥ (May 2014)	2.6%
Germany	Mar 28, 2014 (June 19, 2014)	Bank of China	TBA	0.6%
Thailand	Dec 22, 2014 (Jan 8, 2015)	ICBC (Thai) Public Co. Ltd.	TBA	<0.4%
United Kingdom	Mar 31, 2014 (June 18, 2014)	China Construction Bank	TBA	5.1%
Luxembourg	June 28, 2014 (Sept 23, 2014)	ICBC Luxembourg	TBA	0.6%
France	June 28, 2014 (Sept 23, 2014)	Bank of China Paris	TBA	1.1%
South Korea	July 3, 2014 (July 4, 2014)	Bank of Communications of China	TBA	2.3%

Qatar	Nov 3, 2014 (Nov 14, 2014)	ICBC (Qatar)	TBA	<0.4%
Malaysia	Nov 10, 2014 (Jan 8, 2015)	Bank of China (Malaysia) Berhad	TBA	0.4%
Australia	Nov 17, 2014 (Nov 17, 2014)	Bank of China (Sydney)	TBA	1.5%
Canada	Nov 17, 2014 (Nov 17, 2014)	ICBC (Canada)	TBA	<0.4%
Switzerland	Jan 21, 2015	TBA	N/A	<0.4%
Chile	May 26, 2015	China Construction Bank (Chile)	TBA	<0.4%
Argentina	Sep 17, 2015	TBA	TBA	<0.4%

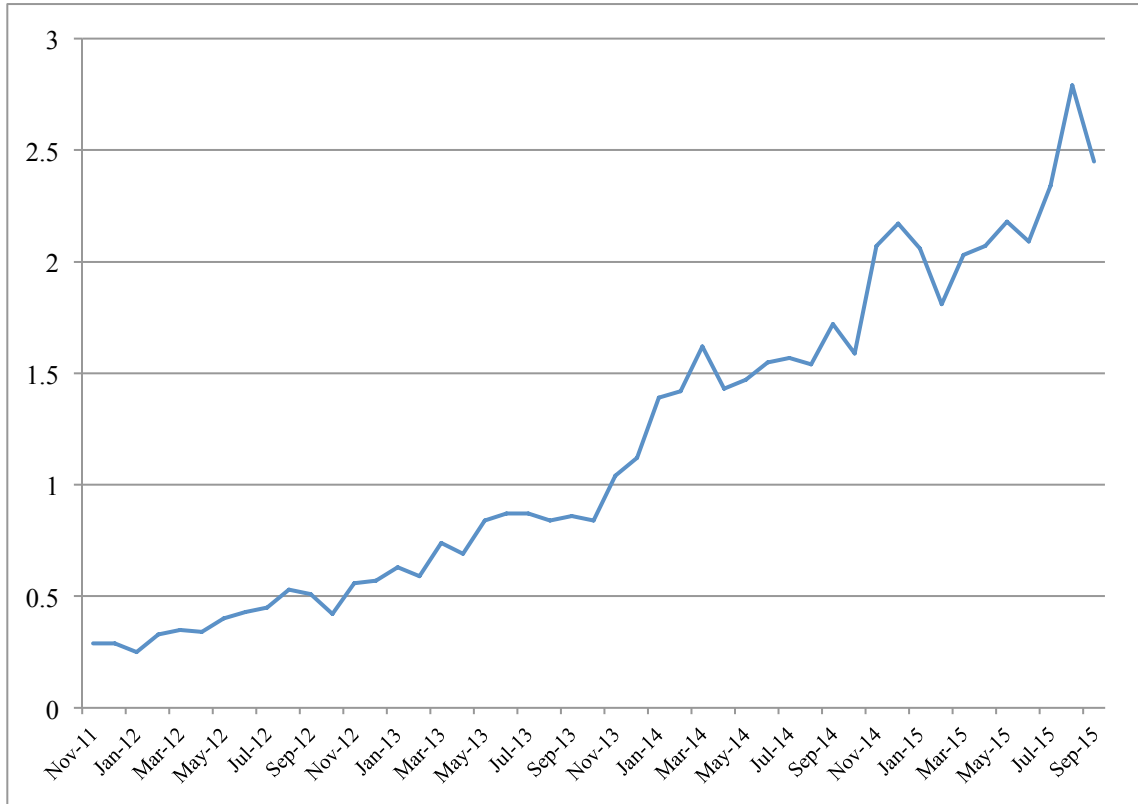
Notes: Each offshore clearing center has only one clearing bank. The third column of the table shows official RMB clearing banks. The shares of payment values are based on data from the SWIFT RMB tracker as of July 2015 (SWIFT Institute, July 2015). In addition to the designated offshore clearing centers listed in the table, two special RMB centers that were set up over a decade ago—Hong Kong (December 2003) and Macao (September 2004)—account for 69.8 percent and 0.4 percent of payment values, respectively. The United States, Japan, and the Netherlands are not offshore clearing centers but are ranked among the top 15 countries, with their shares of payment values amounting to 2.68 percent, 0.4 percent, and 0.3 percent, respectively.

5.2. The RMB's Role as a Payment Currency

One indicator of the RMB's rising international role is its evolution as a payment currency, i.e., a currency used for clearance and settlement of cross-border financial transactions. Data on the RMB's role as a payment currency are based on information compiled and provided by the Society for Worldwide Interbank Financial Telecommunication (SWIFT). SWIFT provides a network that enables financial institutions worldwide to send and receive information about financial transactions in a standardized environment. While SWIFT transports financial messages, it does not perform clearing or settlement of transactions. Because financial institutions have multiple means to exchange information about their financial transactions, SWIFT statistics on financial flows do not represent complete market or industry statistics. Nevertheless, the majority of international interbank messages use the SWIFT network.

SWIFT data on the RMB measure primarily the number of financial institutions using the RMB for payments, both inbound and outbound, throughout the world. The data can also be used to show the share of the RMB in terms of the value of all payments transacted over the SWIFT network. Figure 5-3 shows that this share has risen significantly in recent years, from 0.3 percent at the end of 2011 to 2.8 percent by August 2015. In September 2015, the RMB's share of global payments fell slightly to 2.5 percent, although the upward trend remains clear.

Figure 5-3. RMB as World Payment Currency by Value
(in percent)

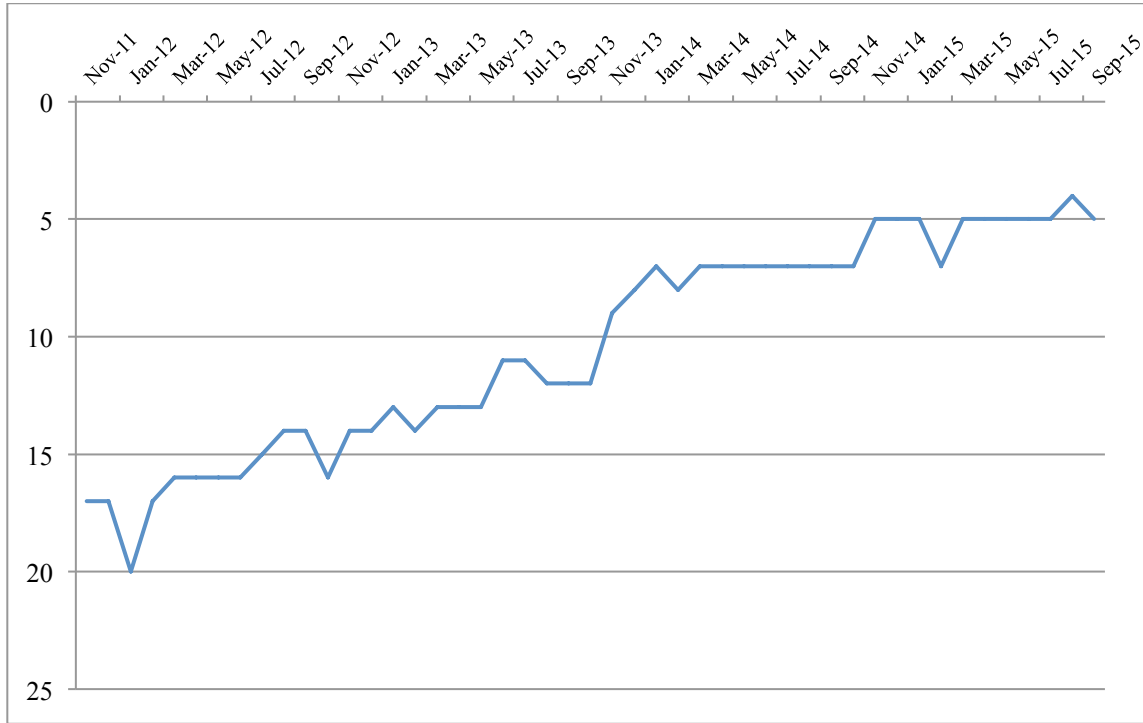


Source: SWIFT Watch

Notes: The data shown represent the value of customer-initiated and institutional payments, in terms of both inbound and outbound traffic over the SWIFT network, that are denominated in RMB as a percentage of total payments over the SWIFT network.

While this share still seems relatively modest, it has vaulted the RMB from ranking 20th in importance at the end of 2012 to becoming the fifth most important payment currency by September 2015 (Figure 5-4). That leaves just four currencies—the U.S. dollar (43.6 percent), the euro (28.5 percent), the pound sterling (8.7 percent), and the Japanese yen (2.9 percent)—ahead of the RMB by this metric. In August 2015, the RMB in fact briefly jumped ahead into fourth place ahead of the yen. Present trends of the RMB’s rising use as a payment currency suggest that it is likely the currency will regain this spot in the near future.

Figure 5-4. RMB as World Payment Currency by Rank

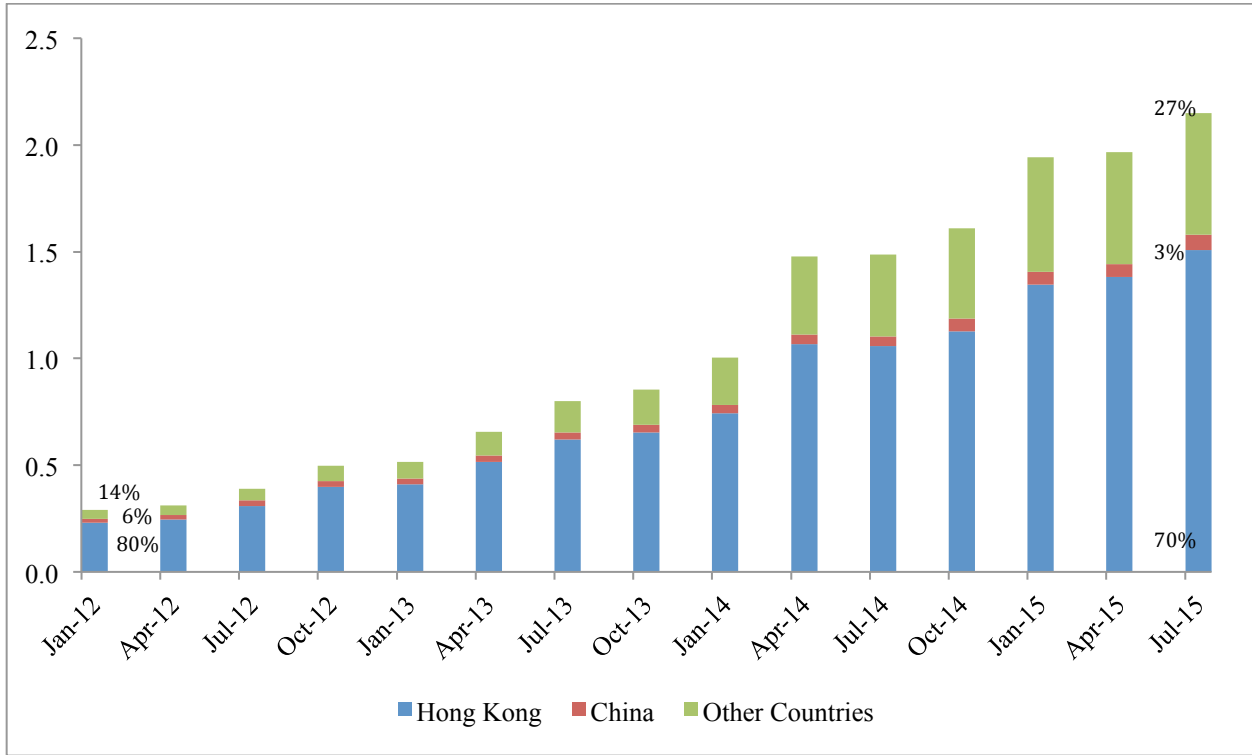


Source: SWIFT Watch

Notes: The data shown in this figure represent the rank of the RMB in terms of the value of customer-initiated and institutional payments, in terms of both inbound and outbound traffic over the SWIFT network, that are denominated in RMB relative to other currencies.

Figure 5-5 shows which territories account for payment transactions in RMB. Hong Kong had the dominant share in 2012, accounting for about 80 percent of RMB transactions over the SWIFT network. By 2015, that share had declined to 70 percent, although Hong Kong still dominates in terms of these transactions.

Figure 5-5. RMB Payments: Country Shares
(shares in percentage of world payments in RMB)

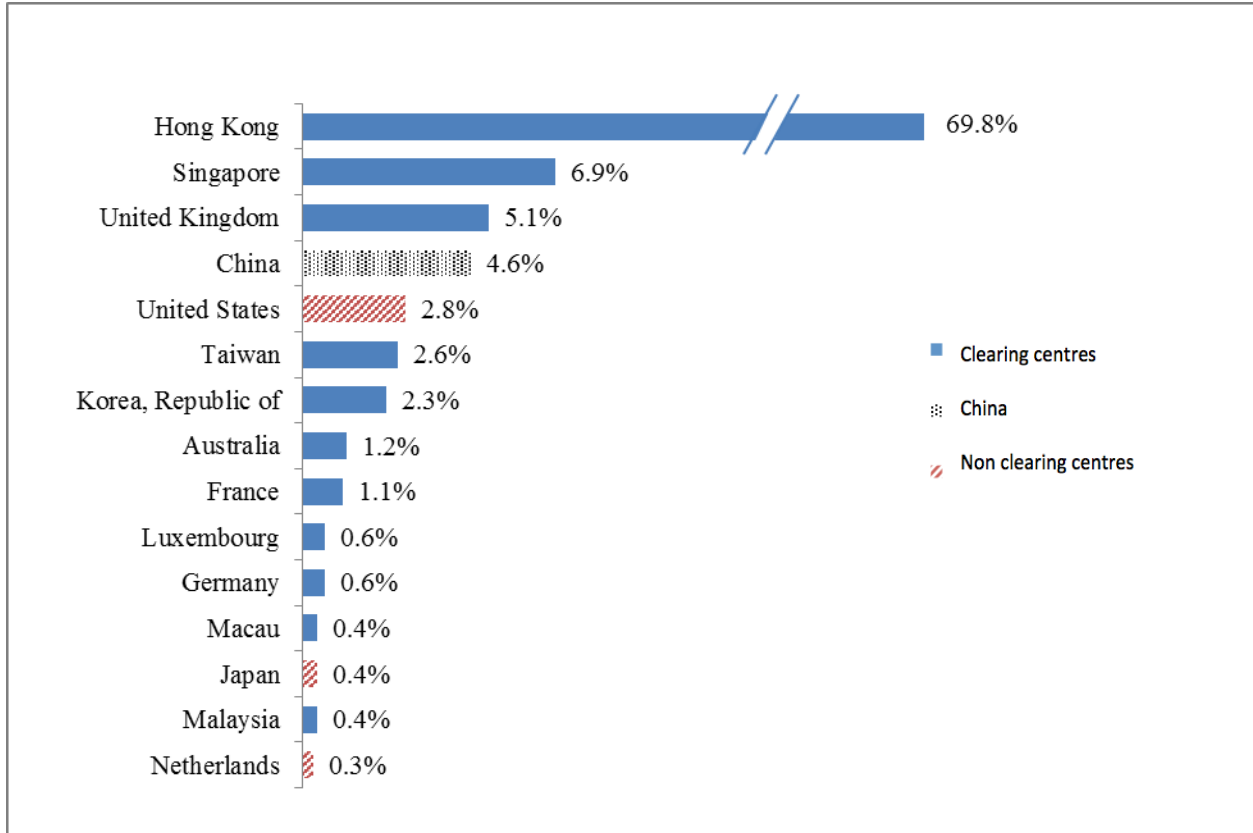


Source: SWIFT

Notes: The data shown in this figure represent the value of customer-initiated and institutional payments, in terms of both inbound and outbound traffic over the SWIFT network, that are denominated in RMB as a percentage of total payments over the SWIFT network. The different sections of the bars show what shares of these payments are accounted for by Hong Kong, China, and all other countries.

Figure 5-6 shows a more detailed breakdown of the top 15 countries in terms of the value of overall RMB payment transactions. Singapore and the United Kingdom account for 6.9 percent and 5.1 percent, respectively, while China itself accounts for less than 5 percent. Most of the countries on this list are also designated as RMB clearing centers. The United States is an important exception—it does not have a clearing center for RMB transactions but still accounted for nearly 3 percent of RMB payments over the SWIFT network.

Figure 5-6. RMB Payments: Top 15 Countries/Territories



Source: SWIFT

Notes: This figure shows which countries account for RMB-denominated payments, in terms of both inbound and outbound traffic, over the SWIFT network.

While the SWIFT data on the RMB’s rising international role have attracted great interest, there are a few important caveats in this regard. First, SWIFT estimates its market share to be around 80 percent of all cross-border payment flows in volume (correspondent banking); remaining transactions go through channels other than SWIFT. Second, SWIFT does not capture all intra-institutional flows since financial institutions may use their own proprietary networks or systems. Third, SWIFT does not capture a large share of domestic flows. For instance, transactions that are intermediated through the Fedwire Funds Service are not on SWIFT. Fourth, the financial flows (sender–receiver) track bank-to-bank activity rather than the underlying commercial flows. For instance, a commercial transaction between China and South Africa that is intermediated through a U.S. bank could involve two messages—one between South Africa and the United States, and the other between the United States and China. This could result in double counting of some financial transactions (relative to the value of the underlying commercial transactions).

Notwithstanding these caveats, the SWIFT data reveal the rising prominence of the RMB as an international payment currency, although it is still a long way from being a major payment currency that can rival the U.S. dollar.

5.3. Limited Use in International Financial Transactions

The pace of the internationalization of China’s currency depends on its use in international financial transactions as well. The choice of currency for denomination and settlement of trade flows is contingent on the extent to which that currency can also be used in international financial transactions. This section analyzes data on foreign exchange market turnover, derivatives markets, and currency denominations of international debt securities. A considerable portion of these data are taken from the Bank for International Settlements (BIS) Triennial Bank Survey. The most recent survey was conducted in 2014 and contains data for 2013.⁵⁸

Foreign exchange market turnover is a good indicator of a currency’s potential for developing into a vehicle currency. As shown in Table 5-2, the RMB now accounts for over 2 percent (out of 200 percent, as each transaction involves two currencies) of all turnover in foreign exchange markets. While this may seem like a small share, it represents a considerable increase over a relatively short period, especially for a currency that is not freely convertible. The U.S. dollar is dominant in this dimension, accounting for 87 percent of turnover in 2013. The four major reserve currencies (the dollar, the euro, the yen, and the pound sterling), along with the Australian dollar and Swiss franc, together account for 169 percent of total turnover. The shares of other major emerging markets’ currencies are all below 2 percent.

Table 5-2. Currency Distribution of Global Foreign Exchange Market Turnover
(selected currencies, in percent)

	2001	2004	2007	2010	2013
U.S. dollar	89.9	88.0	85.6	84.9	87.0
Euro	37.9	37.4	37.0	39.1	33.4
Japanese yen	23.5	20.8	17.2	19.0	23.0
Pound sterling	13.0	16.5	14.9	12.9	11.8
Australian dollar	4.3	6.0	6.6	7.6	8.6
Swiss franc	6.0	6.0	6.8	6.3	5.2
Indian rupee	0.2	0.3	0.7	1.0	1.0
Russian ruble	0.3	0.6	0.7	0.9	1.6
Chinese RMB	0.0	0.1	0.5	0.9	2.2
South African rand	0.9	0.7	0.9	0.7	1.1
Brazilian real	0.5	0.3	0.4	0.7	1.1
All currencies	200.0	200.0	200.0	200.0	200.0

Source: BIS Triennial Central Bank Survey

Notes: The percentage shares of individual currencies sum to 200 percent because two currencies are involved in each transaction. Data are adjusted for local and cross-border inter-dealer double counting (i.e., “net-net” basis).

⁵⁸ See Prasad and Ye (2012) for further discussion of the concepts and data.

In terms of the geographical distribution of foreign exchange turnover, however, China has the advantage of having Hong Kong as an important financial center for settling foreign exchange transactions (Table 5-3). Hong Kong accounts for 4 percent of global foreign exchange market turnover (compared with 41 percent for the United Kingdom and 19 percent for the United States). This leaves the RMB on a competitive footing, at least relative to other emerging market currencies in terms of attaining the role of an international currency.

Table 5-3. Geographical Distribution of Global Foreign Exchange Market Turnover
(selected economies; in percentages)

	2001	2004	2007	2010	2013
United Kingdom	31.8	32.0	34.6	36.8	40.9
United States	16.0	19.1	17.4	17.9	18.9
Singapore	6.1	5.1	5.6	5.3	5.7
Japan	9.0	8.0	5.8	6.2	5.6
Hong Kong	4.0	4.1	4.2	4.7	4.1
Switzerland	4.5	3.3	5.9	4.9	3.2
Germany	5.4	4.6	2.4	2.2	1.7
Russia	0.6	1.1	1.2	0.8	0.9
China	...	0.0	0.2	0.4	0.7
India	0.2	0.3	0.9	0.5	0.5
Brazil	0.3	0.1	0.1	0.3	0.3
South Africa	0.6	0.4	0.3	0.3	0.3
Total	78.5	78.1	78.6	80.3	82.8

Source: BIS Triennial Central Bank Survey

Notes: Other countries with at least a 1 percent share include Australia, France, Canada, Denmark, and the Netherlands. An ellipsis indicates that data were not available for that year. Data are adjusted for local inter-dealer double counting (i.e., “net-gross” basis). Estimated coverage of the foreign exchange market ranged between 90 percent and 100 percent in most countries.

Overall, the spot and derivatives markets for trading in the RMB have progressed to a significant extent but still remain underdeveloped (see Table 5-4). China’s currency once took a relatively low share of spot transactions turnover among all major economies, but that has shifted over the period 2010–2013 (since the previous BIS Triennial Central Bank Survey that had data through 2010). The RMB’s foreign exchange derivatives trading volume, which was once far smaller than those of the major reserve currencies, has also improved. China also has a major presence in markets for commodity futures (not shown here). Based on the number of futures/options traded, three of China’s commodity futures exchanges are among the top 20 derivatives exchanges in the world. These data suggest that China has made some headway in promoting the international use of its currency.

Table 5-4. Global Foreign Exchange Market Turnover:
 Currency and Instrument Distribution
 (percentage shares of average daily turnover: April 2013)

	Spot	Outright forwards	Foreign exchange swaps	Currency swaps	Options, other instruments
U.S. dollar	36.3	12.6	43.6	1.1	6.3
Euro	42.2	10.0	42.9	1.0	3.9
Japanese yen	49.7	10.0	27.0	0.9	12.4
Pound sterling	36.0	10.9	47.7	0.8	4.6
Australian dollar	42.4	10.8	39.6	1.3	5.8
Swiss franc	30.5	9.8	54.2	0.4	5.1
South African rand	31.7	11.7	51.7	-	3.3
Russian ruble	43.5	10.6	43.5	-	3.5
Indian rupee	28.3	45.3	18.9	-	5.7
Brazilian real	18.6	57.6	1.7	5.1	18.6
Chinese RMB	28.3	23.3	33.3	0.8	14.2

Source: BIS Triennial Central Bank Survey

Notes: This table shows, for each currency, the relative shares of its turnover in each of the five categories of global foreign exchange market shown in the column. Each row sums to 100. Data are adjusted for local and cross-border inter-dealer double counting (i.e., “net-net” basis).

The RMB now leads other emerging market currencies in terms of its share of the turnover in global foreign exchange markets (Table 5-5). The U.S. dollar, the euro, and the Japanese yen together account for a substantial fraction of the total turnover in spot and derivatives markets. The Chinese RMB has made significant progress—especially in terms of the share of its turnover in spot, outright forwards, and foreign exchange swaps markets. Its share of global foreign exchange market turnover still remains modest but is larger than those of other major emerging markets.

Table 5-5. Turnover in Global Foreign Exchange Markets, April 2013
(daily averages in billions of U.S. dollars during April 2010)

	Spot	Outright forwards	Foreign exchange swaps	Currency swaps	Options sold	Options bought	Total options	Total foreign exchange contracts
U.S. dollar	1,691	588	2,030	50	189	188	293	4,652
Euro	754	178	766	18	48	46	70	1,786
Japanese yen	612	123	332	11	94	99	153	1,231
Pound sterling	227	69	301	5	19	20	29	631
Australian dollar	196	50	183	6	19	19	27	462
Swiss franc	84	27	149	1	8	8	14	275
Chinese RMB	34	28	40	1	11	11	17	120
S. African rand	19	7	31	0	1	1	2	60
Russian ruble	37	9	37	0	2	2	3	85
Indian rupee	15	24	10	0	2	2	3	53
Brazilian real	11	34	1	3	8	7	11	59

Source: BIS Triennial Central Bank Survey

The RMB's presence in the interest rate derivatives market is also modest, accounting for 0.9 percent of trades cleared through centralized counterparties and 0.2 percent of the notional value of such trades (Table 5-6, Panel A). For all trades, these shares for the RMB are lower, at 0.5 percent and 0.1 percent, respectively (Table 5-6, Panel B).

Table 5-6. Interest Rate Derivatives by Currency, 2012

A. Trades Cleared through Centralized Counterparty

	Gross Notional Value		Total Trade Count	
	USD billions	Percent of total	Trade count	Percent of total
Euro	80,018	33.9	628,417	25.3
U.S. dollar	75,502	32.0	702,401	28.3
Japanese yen	29,271	12.4	267,440	10.8
Pound sterling	20,526	8.7	234,049	9.4
Swiss franc	2,652	1.1	32,221	1.3
S. African rand	1,792	0.8	30,080	1.2
Brazilian real	776	0.3	15,658	0.6
Indian rupee	742	0.3	43,097	1.7
Chinese RMB	435	0.2	22,417	0.9
Russian ruble	1,466	0.6	6,648	0.3
Share of total	213,180	90.3	1,982,428	79.8
Total	236,185		2,483,499	

B. All Trades

	Gross Notional Value		Total Trade Count	
	USD billions	Percent of total	Trade count	Percent of total
Euro	172,596	34.8	1,103,212	25.6
U.S. dollar	172,099	34.7	1,320,501	30.7
Japanese yen	64,845	13.1	64,845	1.5
Pound sterling	42,325	8.5	425,289	9.9
Swiss franc	5,921	1.2	77,470	1.8
S. African rand	2,387	0.5	49,975	1.2
Brazilian real	775	0.2	15,658	0.4
Indian rupee	742	0.1	43,097	1.0
Chinese RMB	435	0.1	22,417	0.5
Russian ruble	132	0.0	6,648	0.2
Share of total	462,257	93.2	3,129,112	72.7
Total	495,889		4,302,569	

Source: Tri-Optima Trade Repository Report, 2012

Notes: CCP refers to any interest rate trade cleared through a central counterparty. It was calculated by adding the trade summary by currency for G14 and non-G14 dealers. Tri-Optima's Interest Rate Trade Repository Report no longer publishes these data. The Depository Trust and Clearing Corporation now manages the data but does not make it available to the public.

Another indicator of the currency's potential use in international financial transactions is the relative size of international debt securities (i.e., debt issued outside the home country) in various currencies of issuance. Table 5-7 shows that the existing reserve currencies clearly dominate, with the U.S. dollar and the euro accounting for 82 percent of outstanding international bonds

and notes. The top five reserve currencies combined account for 95 percent of these instruments. Only a modest 0.5 percent of international debt is denominated in RMB. The same is true for other major emerging market currencies.

Table 5-7. International Bonds and Notes Outstanding
(selected currencies)

	June 2015 (USD billions)	Share (percent of total)
U.S. dollar	8,816	42.7
Euro	8,092	39.2
Pound sterling	1,988	9.6
Yen	402	1.9
Swiss franc	295	1.4
Chinese RMB	98	0.5
Brazilian real	37	0.2
South African rand	29	0.1
Russian ruble	21	0.1
Indian rupee	7	0.0

Source: BIS Quarterly Review, Detailed Statistical Annex, Table 13B, September 2015

Note: This table shows the breakdown of outstanding international debt securities by currency denomination.

5.4. The China International Payment System

The interbank payment system serves as the basic infrastructure of financial markets as it is necessary for inter-bank funds transfer and currency clearing in most countries. Individual financial institutions can always find corresponding banks to fulfill their specific needs for funds transfer and payments. However, this is inefficient and costly, especially with the large volume of transactions occurring each day, many of them involving cross-border activities. The payment system provides a central platform that helps clear interbank financial transactions in a standardized manner both domestically and internationally.

The domestic RMB payment system, called the China National Advanced Payment System (CNAPS), is not in line with international standards and its operation is limited by its incompatibility with foreign language codes. Hence, China has recently set up a new payment system—the China International Payment System (CIPS)—organized more in line with internationally accepted standards, which is essential for facilitating cross-border RMB transactions, including trade and investment flows.

The main function of the CIPS is to provide clearing and payment services for financial institutions engaged in cross-border RMB and offshore RMB business. Phase One of the CIPS commenced operation on October 8, 2015. According to the PBC, the first phase will facilitate

processing of cross-border RMB business; settlement of cross-border trade in goods and services; cross-border direct investment; cross-border financing; and fund transfers for individual customers. The operating hours cover the time zones of Africa, Asia, Europe, and Oceania, raising the accessibility of cross-border RMB settlements. Phase Two will expand to support other forms of cross-border movement of RMB and settlements of offshore funds. In cooperation with SWIFT, PBC will adopt ISO 20022 standards and support both Chinese and English. By addressing the limitations inherent in CNAPS, CIPS is likely to substantially reduce transaction costs and increase the international use of RMB.

The first batch of direct participants in CIPS includes 19 banks: ICBC, ABC, BOC, CCB, Bank of Communications, China Merchants Bank, Pudong Development Bank, China Minsheng Bank, Industrial Bank, Pingan Bank, Huaxia Bank, HSBC Bank China, Citibank China, Standard Chartered Bank (China), DBS China, Deutsche Bank (China), BNP Paribas China, ANZ Bank (China), and Bank of East Asia. Moreover, 38 domestic banks and 138 overseas banks located in Africa, Asia, Europe, and Oceania are registered in the system as indirect participants.⁵⁹

Questions remain as to how the new infrastructure will change the existing rules of the game. As noted earlier, PBC has designated 15 RMB offshore clearing centers (in addition to Hong Kong and Macao), along with the overseas branches of the major state-owned commercial banks (ICBC, BOC, and CCB) that are authorized to operate clearing business. In theory, the designated offshore centers will lose many of their privileges upon the establishment of the CIPS, as qualified financial institutions regardless of their location will have direct access to the onshore corresponding clearing banks or the central platform. In practice, however, CIPS is starting in a modest way with tests and trials among a limited number of designated institutions before gradually expanding its membership scope. It is also not clear if the existing overseas clearing branches of China's state-owned banks in offshore clearing centers will be incorporated into the CIPS. It is likely that in practice CIPS will be a supplement to rather than a substitute for the existing offshore clearing arrangements.

The fact that the payment system serves as a public good does not mean it is always owned and run by the government. For example, there are two co-existing inter-bank payment systems in the United States, the Clearing House for Interbank Payment System (CHIPS) operated by the York Clearing House, an association of private banks, and the Federal Reserve Wire Network, commonly known as Fed Wire, a part of the Federal Reserve Bank System. Fed Wire has a domestic focus, providing transfer services to all banks within the Federal Reserve System, while CHIPS focuses on both domestic and international arenas, and has only 47 large financial institutions as members. Historically, CHIPS specialized in settling the dollar portion of foreign exchange transactions, although its focus has gradually shifted to the domestic market as well. It is believed that CIPS will be modeled along the lines of CHIPS, although control is likely to remain with the government. This will give the government access to information about payments processed through the system, allowing it to maintain oversight over cross-border financial transactions.

⁵⁹ See "Milestone of RMB Internalization: RMB Cross-border Inter-bank Payment System Starts Operation," PBC, October 14, 2015.

It is worth emphasizing the distinctions between national payment systems and SWIFT. SWIFT is not a funds transfer system but rather an interbank communications system that was developed in 1973 for the purpose of providing a standardized, quicker, and more efficient means of sharing financial information between financial institutions around the world. So, in general, the national and international payment systems launched by particular countries do not per se act as substitutes for SWIFT, although the payment system does have to rely on SWIFT and has to be consistent with its standards. However, it is also possible that, while CIPS will adopt the same standards as SWIFT, it could be designed as a system for international RMB transactions independently of SWIFT. This would make it not only a funds transfer system but also a communication system.

Whichever form CIPS ultimately ends up taking, the main point is that it is the adoption of international standards that makes the new payment system a meaningful move in facilitating the international use of the RMB.

6. The RMB's Role as a Reserve Currency

Attaining reserve currency status has intangible benefits, including prestige, as well as tangible ones. A country issuing a reserve currency earns seigniorage revenues from abroad—inflation reduces the value of foreign (and domestic) investors' holdings of the currency—and provides easier access to cheap foreign financing of debt issued in the domestic currency. To the extent that this status results in a more extensive denomination of trade transactions in China's own currency, domestic importers and exporters would face lower currency risk. The potential costs of having a reserve currency include reduced control of the currency's external value and possibly a more volatile exchange rate. This status in principle entails a greater burden of responsibility because domestic monetary policy has more spillover effects to other economies.

The RMB's prospects as a reserve currency will be influenced by these criteria:

- Economic size
- Macroeconomic policies
- Open capital account
- Flexible exchange rate
- Financial market development

This chapter evaluates how the RMB measures up on the first two criteria and then summarizes its progress towards reserve currency status. China's progress on the latter three criteria has been covered in previous sections.

6.1. Economic Size

Some economists have argued that China's sheer size and dynamism will result in its currency becoming a global reserve currency.⁶⁰ As shown in Table 6-1, China has clearly become a major economic power, accounting for 13.4 percent of global GDP in 2014 based on nominal GDP measured at market exchange rates. At purchasing power parity (PPP) exchange rates, the Chinese economy is already slightly larger than the U.S. economy, accounting for 16.3 percent of global GDP.

⁶⁰ See, for instance, Chen, Peng, and Shu (2009) and Subramanian (2011).

Table 6-1. Configuration of Global GDP: 2014

	Nominal GDP		GDP in PPP	
	USD billions	Percent of world total	USD billions	Percent of world total
United States	17419	22.5	17419	16.1
Euro area	13391	17.3	-	-
China	10380	13.4	17617	16.3
Japan	4616	6.0	4751	4.4
United Kingdom	2945	3.8	2549	2.4
Canada	1789	2.3	1592	1.5
Australia	1444	1.9	1095	1.0
Switzerland	712	0.9	473	0.4

Source: IMF World Economic Outlook Database, April 2015

Note: PPP refers to purchasing power parity adjusted measures of GDP.

While China’s growth over the last three decades is indeed awe inspiring, it is essential to keep in mind that China became big and influential before it became rich and, more importantly, before it had well-developed financial markets or broadly trusted public institutions. After all, if size was the main criterion, it is unlikely that a small country such as Switzerland, which has a GDP less than one-tenth that of China, would have one of the main reserve currencies in the world.

Another important criterion for achieving international or reserve currency status is the share of an economy in world trade and its trade interconnectedness with other economies. Although having large trade flows is neither a necessary nor sufficient condition for a country to have an international currency, it does boost the potential for the economy’s currency to serve as an invoice currency. This is an underlying implication of Krugman’s (1995) triangle model of currency invoicing—whereby economies are more likely to use the currency of the large nation, as measured by trade, due to economies of scale.

The value of China’s total trade is now only slightly lower than that of the two major economic areas—the euro zone and the United States (Table 6-2). China now accounts for 8.5 percent of world trade in goods and nonfactor services (Panel A), behind only the shares of the euro area and the United States (figures for the euro area include within-euro-area trade). When trade is measured on the basis of trade in goods alone, the same ranking of the top three holds, with China accounting for 10.5 percent of the world total. For an economy of its size, China also has a high ratio of total trade to GDP, higher than that of the euro area, the United States, and other key emerging markets. These indicators suggest China’s size and rising prominence in world trade.

Table 6-2. Country Shares of World Trade
(in percent)

A. Trade in Goods and Nonfactor Services

	Exports	Imports	Total trade
Euro area	27.82	26.99	27.42
United States	9.91	12.49	8.62
China	9.98	9.32	8.48
Germany	7.48	6.65	5.77
Japan	3.64	4.34	3.22
United Kingdom	3.53	3.91	2.50
Russia	2.38	1.88	1.73
India	2.05	2.42	1.58
Switzerland	1.87	1.60	1.29
Brazil	1.12	1.40	0.98
South Africa	0.46	0.51	0.41

B. Trade in Goods

	Exports	Imports	Total trade
Euro area	13.92	11.98	12.95
United States	8.76	12.50	10.65
China	11.51	9.46	10.48
Germany	8.00	6.26	7.12
Japan	3.75	4.21	3.98
United Kingdom	2.58	3.58	3.08
Russia	2.67	1.62	2.14
India	1.77	2.14	1.95
Switzerland	1.76	1.44	1.59
Brazil	1.20	1.22	1.21
South Africa	0.50	0.52	0.51

Sources: IMF's International Financial Statistics, World Bank World Development Indicators, and Eurostat

Notes: Euro-area data include trade between countries within the area.

In addition to trade volumes, another important criterion is the degree to which an economy is interconnected with other economies through trade linkages. This has implications for the incentives of traders in other countries to settle their transactions in the home country's currency. On the basis of a variety of criteria, Errico and Massara (2011) find that, by 2010, China was the second-most interconnected country in terms of its trade flows, up from fifth in 2000. China is also ranked second in terms of the size of its trade, giving it the top rank in terms of overall systemic trade importance. The United States ranks first in size and 19th in terms of

interconnectedness, giving it the rank of sixth in systemic trade importance.⁶¹ The study has not been updated, but China’s ranking is likely to have remained the same as its share of world trade has continued to rise.

6.2. Macroeconomic Policies

Macroeconomic policies that anchor long-run inflationary expectations and foster macroeconomic stability are typically important conditions for a reserve currency. China has a low level of explicit public debt relative to the major reserve currency economies. The level of central government debt is estimated to be about 17 percent of GDP in 2015. This is a positive situation from the perspective of macroeconomic stability, even if it means limited availability of “safe” RMB-denominated assets. The IMF also calculates a measure of augmented debt, which includes various types of local government borrowing, including off-budget borrowing by Local Government Financing Vehicles (LGFVs) via bank loans, bonds, trust loans, and other funding sources. By this measure, China’s public debt to GDP is estimated to be about 57 percent of GDP in 2015, which would still be below the median public debt to GDP ratio among advanced economies.⁶² Moreover, China’s general government budget deficit has been quite small in recent years—it is forecast to be around 2.5 percent of GDP in 2011. In conjunction with the manageable level of public debt, this implies that China has room to counter domestic and external shocks using fiscal policy.⁶³

China has had a relatively stable inflation rate in the recent past, as has been the case in most other major economies since 2000. Over the period 2000–2010, the standard deviations of annual consumer price index inflation in the advanced reserve currency economies were all around 1 percent. During this period, the standard deviations of inflation in emerging markets were in the range of 3 to 4 percent, with China coming in lowest, with a standard deviation of 2 percent.⁶⁴ In 2014 and 2015, consumer price index inflation remained generally positive and under 2 percent. China’s track record in terms of the level and volatility of inflation should not impede its ascendancy to the status of having a global currency.

The reserve currency economies occupy diverse net international positions. The United States has a particularly large negative net foreign asset position, amounting to \$6.7 trillion in the

⁶¹ The Netherlands has the highest rank in terms of interconnectedness; it is a small but very open economy with extensive trade linkages. The systemic trade importance ranks of some other countries are as follows: Germany (2), Korea (7), Japan (9), India (14), Russia (19), and Brazil (20).

⁶² The IMF refers to this figure for augmented debt as an upper bound of the government’s obligations. However, this figure does not seem to include estimates of contingent liabilities in the state-owned banking system, which could swell the government’s fiscal obligations. Reliable estimates of these contingent banking system liabilities are hard to come by.

⁶³ According to a recent McKinsey report, China’s gross debt was 282 percent of GDP in 2014. This includes government debt (55 percent of GDP; similar to the IMF’s estimate) and debt of financial institutions’ (65 percent of GDP), nonfinancial corporates (125 percent of GDP), and households (38 percent of GDP). For comparison, according to this report, U.S. gross debt in 2014 was 269 percent of GDP, accounted for mostly by government debt (89 percent of GDP) and household debt (77 percent of GDP). See “Debt (and Not Much) Deleveraging,” McKinsey Global Institute, February 2015.

⁶⁴ See Prasad and Ye (2012).

second quarter of 2015. The United Kingdom and the euro area as a whole also have negative net asset positions. By contrast, Germany, Japan, and Switzerland have positive net asset positions. China, too, has a positive net asset position, amounting to nearly \$1.5 trillion in the first half of 2015.⁶⁵ This diversity suggests that the signs of the net positions are themselves not crucial for reserve currency status. In other words, it is not essential for a country to run persistent current account deficits, as suggested by the Triffin dilemma, for its currency to attain reserve currency status. In fact, the average current account balance to GDP ratio over the period 2000–2007 was positive (or, in the case of the euro zone, essentially zero) for all reserve currency economies except the United Kingdom and the United States.⁶⁶

6.3. A Summary of China's Progress on Traditional Reserve Currency Criteria

This section builds on the prior analysis to discuss the relative importance of each criterion for reserve currency status mentioned earlier and summarizes how China measures up.

- *Economic size:* A country's size and its shares of global trade and finance are important, but not crucial, determinants of the status of its reserve currency. China now accounts for 13 percent of world gross domestic product (16 percent if measured by PPP rather than market exchange rates) and 9 percent of world trade. In 2014, it is estimated to have accounted for about one-third of world GDP growth.
- *Macroeconomic policies:* Investors in a country's sovereign assets must have faith in its commitment to low inflation and sustainable levels of public debt so the value of the currency is not in danger of being eroded. China has a lower ratio of explicit public debt to GDP than most major reserve currency economies and has maintained moderate inflation in recent years.
- *Open capital account:* Reserves must be acceptable as payments to a country's trade and financial partners, which requires that the currency be easily tradable in global financial markets. This is difficult if a country imposes restrictions on capital flows and if its foreign exchange markets are thin and subject to direct control by the government. China is gradually and selectively easing restrictions on inflows and outflows. The capital account has become increasingly open in de facto terms, but extensive capital controls remain in place.
- *Flexible exchange rate:* Reserve currencies are typically traded freely, and their external value is market determined, although this does not preclude occasional intervention by the country's central bank in foreign exchange markets. China has increased the flexibility of the exchange rate and permitted market forces to play a bigger role in foreign exchange markets. Despite these changes, China still has a closely managed exchange rate, which will become increasingly hard to manage as the capital account becomes more open.

⁶⁵ Data on international investment positions taken from IMF and CEIC.

⁶⁶ See Prasad and Ye (2012) and Prasad (2014) for more details.

- *Financial market development:* A country issuing a reserve currency needs broad, deep, and liquid financial markets for international investors to have access to a wide array of financial assets denominated in its currency. China has relatively shallow government and corporate bond markets with low trading volumes, and a volatile stock market.

While China measures up favorably in the first four areas, it still lags the major reserve currency economies by several measures of financial market development.⁶⁷ Despite its underdeveloped financial markets, however, China is trying to create a new playbook for its currency. Indeed, the RMB is already making its presence felt on the international stage, in part as the result of policy actions by the Chinese government and in part because of the sheer size and growing role of China in international trade and finance.

6.4. Swap Arrangements

Since 2009, the PBC has moved aggressively to establish bilateral swap arrangements with other central banks in order to facilitate and expand the use of the RMB in international trade and financial transactions. China had in fact established swap lines with many Asian central banks even before it started to actively promote the international use of its currency. Most of these were dollar–RMB swaps under which China would provide U.S. dollars in exchange for the local currency of the counterparty economy. In other words, the foreign exchange reserves of economies like China would often serve as an additional credit line facility if the counterparty economy were to face a liquidity crunch due to a balance of payments or financial crisis.

There is one crucial difference between the earlier swap arrangements and those the PBC has signed since 2009. Every one of the swaps in place now operates in terms of local currencies—that is, the PBC commits to exchange other central banks’ currencies for RMB. By September 2015, 34 central banks had signed such local currency swap arrangements with the PBC. The list of central banks and the maximum amounts of the arrangements are listed in Table 6-3. Eager to expand its RMB business and with the goal of making London a major center for RMB-denominated activity, by early 2013 even the Bank of England had signed such a swap line, making it the first G-7 central bank to sign one with the PBC. A number of other advanced economy central banks have also signed swap arrangements with the PBC.

The total amount that could be drawn by the 34 participating swap arrangements amounts to the equivalent of roughly half a trillion dollars, clearly a sizable amount. The largest one is with the Hong Kong Monetary Authority, for \$63 billion. The PBC’s arrangements with the Bank of Korea, the Monetary Authority of Singapore, and the European Central Bank are in the range of \$47 billion to \$56 billion.

⁶⁷ Angeloni et al. (2011) note that, in addition to strong financial markets, a reserve currency should be backed up by (1) the reliability of rules and institutions, (2) the quality and predictability of fiscal and monetary policies, (3) the ability of policymakers to respond to unexpected shocks, and (4) political cohesion. Some authors also argue that network externalities are important as they generate economies of scale and scope. See, for instance, Chinn and Frankel (2007). There is related empirical evidence of strong persistence effects in international investment patterns. See Appendix C of the report, “The International Role of The Euro,” July 2013. Frankfurt, Germany: European Central Bank.

Table 6-3. Central Bank Swap Arrangements with People's Bank of China,
December 2008–September 2015

Bank	Date	Amount (billion RMB)	USD equivalent (billion)
1. Bank of Korea	<i>December 12, 2008</i>	<i>180</i>	<i>28.2</i>
	<i>October 26, 2014</i>	<i>360</i>	<i>56.4</i>
2. Hong Kong Monetary Authority	<i>January 20, 2009</i>	<i>200</i>	<i>31.3</i>
	<i>November 27, 2014</i>	<i>400</i>	<i>62.7</i>
3. Bank Negara Malaysia	<i>February 8, 2009</i>	<i>80</i>	<i>12.5</i>
	<i>February 8, 2012</i>	<i>180</i>	<i>28.2</i>
	<i>April 18, 2015</i>	<i>180</i>	<i>28.2</i>
4. National Bank of the Republic of Belarus	<i>March 11, 2009</i>	<i>20</i>	<i>3.1</i>
	<i>May 11, 2015</i>	<i>7</i>	<i>1.1</i>
5. Bank Indonesia	<i>March 23, 2009</i>	<i>100</i>	<i>15.7</i>
	<i>October 1, 2013</i>	<i>100</i>	<i>15.7</i>
6. Central Bank of Argentina	<i>April 2, 2009</i>	<i>70</i>	<i>11.0</i>
	<i>July 18, 2014</i>	<i>70</i>	<i>11.0</i>
7. Central Bank of Iceland	<i>June 9, 2010</i>	<i>3.5</i>	<i>0.5</i>
	<i>October 14, 2013</i>	<i>3.5</i>	<i>0.5</i>
8. Monetary Authority of Singapore	<i>July 23, 2010</i>	<i>150</i>	<i>23.5</i>
	<i>March 7, 2013</i>	<i>300</i>	<i>47.0</i>
9. Reserve Bank of New Zealand	<i>April 18, 2011</i>	<i>25</i>	<i>3.9</i>
	<i>May 22, 2014</i>	<i>25</i>	<i>3.9</i>

10. Central Bank of the Republic of Uzbekistan	<i>April 19, 2011</i>	0.7	0.1
11. Bank of Mongolia	<i>April 19, 2011</i>	5	0.8
	<i>March 20, 2012</i>	10	1.6
	<i>August 21, 2014</i>	15	2.4
12. National Bank of Kazakhstan	<i>June 13, 2011</i>	7	1.1
	<i>December 14, 2014</i>	7	1.1
13. Bank of Thailand	<i>December 22, 2011</i>	70	11.0
	<i>December 22, 2014</i>	70	11.0
14. State Bank of Pakistan	<i>December 23, 2011</i>	10	1.6
15. Central Bank of the United Arab Emirates	<i>January 17, 2012</i>	35	5.5
16. Central Bank of the Republic of Turkey	<i>February 21, 2012</i>	10	1.6
17. Reserve Bank of Australia	<i>March 22, 2012</i>	200	31.3
	<i>April 8, 2015</i>	200	31.3
18. National Bank of Ukraine	<i>June 26, 2012</i>	15	2.4
19. Banco Central do Brazil	<i>March 26, 2013</i>	190	29.8
20. Bank of England	<i>June 22, 2013</i>	200	31.3
21. Central Bank of Hungary	<i>September 9, 2013</i>	10	1.6
22. Bank of Albania	<i>September 12, 2013</i>	2	0.3
23. European Central Bank	<i>October 10, 2013</i>	350	54.9
24. Swiss National Bank	<i>July 21, 2014</i>	150	23.5
25. Central Bank of Sri Lanka	<i>September 16, 2014</i>	10	1.6
26. Central Bank of Russian Federation	<i>October 13, 2014</i>	150	23.5
27. Qatar Central Bank	<i>November 3, 2014</i>	35	5.5
28. Bank of Canada	<i>November 18, 2014</i>	200	31.3

29. Nepal Rastra Bank	<i>December 25, 2014</i>	Unknown	Unknown
30. Central Bank of Suriname	<i>March 18, 2015</i>	1	0.2
31. Central Bank of Armenia	<i>March 30, 2015</i>	1	0.2
32. South African Reserve Bank	<i>April 10, 2015</i>	30	4.7
33. Central Bank of Chile	<i>May 25, 2015</i>	22	3.4
34. National Bank of Tajikistan	<i>September 7, 2015</i>	3	0.5
Total Amount		3,162	495.8

Sources: PBC and other participating central banks

Notes: The U.S. dollar equivalent amounts are based on the September 9, 2015 exchange rate of 6.38 RMB per dollar. The table shows only the dates of the initial arrangement and the latest arrangement (if the initial arrangement has been renewed). Intermediate renewals (for instance, the Bank of Korea's and Hong Kong Monetary Authority's renewals in 2011) are not shown.

China's bilateral swap lines with foreign central banks directly support the RMB's greater international use. But the amounts involved in these bilateral agreements have been relatively small so far. The modest amounts notwithstanding, the PBC is clearly making an active effort to make the central banks of a broad group of economies comfortable and familiar with RMB-denominated instruments and financial facilities.

6.4. RMB's Appearance in Reserve Portfolios

Another interesting development is that, despite its lack of convertibility, the RMB is already beginning to play a modest role in a few central banks' reserve portfolios.⁶⁸ Chile, Malaysia, and Nigeria are widely believed to have pioneered this trend, starting in the second half of 2011. The Central Bank of Nigeria issued a statement on September 5, 2011, announcing that it "has finalized arrangements to diversify its external reserves holdings by including the Chinese RMB (RMB) to the existing currency mix of United States dollars (USD), the euro (EUR) and the British pound sterling (GBP)."⁶⁹ Furthermore, Chile's internally managed Central Bank investment portfolio now has 3 percent of its assets allocated to RMB-denominated instruments, according to its September 2015 *Monetary Policy Report*.

Official statements and other accounts suggest that a number of other central banks also have or are considering adding RMB assets to their reserve portfolios. In addition to the three countries mentioned above, the list includes Austria, Australia, Pakistan, South Africa, Switzerland, Tanzania, Russia, and the United Kingdom. Most of the countries that are acquiring RMB for

⁶⁸ Foreign central banks that want to buy Chinese bonds for their reserve portfolios have to get permission from the Chinese government through the QFII scheme. Sovereign wealth funds have to do the same. Responding to strong demand for higher access limits, in December 2012, SAFE removed the ceiling on inward investments by sovereign wealth funds, central banks, and monetary authorities.

⁶⁹"Nigeria Approves Inclusion of Chinese RMB in External Reserves," Central Bank of Nigeria Press Release, September 5, 2011.

their reserve portfolios or whose central banks have signed bilateral local currency swap arrangements with the PBC tend to have strong trading relationships with China. Hence, for these countries, access to RMB liquidity may be useful in facilitating trade transactions in addition to providing the benefit of portfolio diversification.⁷⁰

The IMF estimates that in 2014, about 1.1 percent of official foreign currency assets were held in RMB, up from 0.7 percent in 2013.⁷¹ This estimation is based on data from about 38 countries (not identified by the IMF), which reported that they held some RMB-denominated assets in their official reserve portfolios (in 2013 the number of reporting countries was 27). This puts the RMB in the seventh spot in terms of the identified composition of official foreign currency assets. The top six are the U.S. dollar (64 percent in 2014, 127 reporting countries), the euro (21 percent), the British pound sterling (4 percent), the Japanese yen (3 percent), the Australian dollar (2 percent), and the Canadian dollar (2 percent). The RMB's share is larger than those of the Swiss franc, the New Zealand dollar, and the Swedish krona, each of which accounts for 0.2 percent.

The RMB's progress is modest but the trajectory of its rise is unmistakable. The gains the RMB has made so far are symbolically important in signaling the shift in perception of the RMB's stability and its future role in the international monetary system. The apparent high degree of interest on the part of so many countries—small and large, within and outside Asia—to develop bilateral financial arrangements with China is striking.

One recent bilateral arrangement that is likely to influence finance in Asia is the pact that China and Japan signed in December 2011 to promote the use of their currencies for bilateral trade and investment flows.⁷² Bilateral trade and financial flows between these economies are still relatively modest, which implies that, even if all of these transactions are currently settled in dollars and will eventually be settled in the two countries' currencies, the effect on switching from dollar-intermediated transactions would still be relatively modest at the global level. Over time, the effects could be larger, especially because the decline in currency transaction costs and exchange rate uncertainty could boost trade and financial flows between the two countries. China has also given permission for Japan's Bank for International Cooperation to issue an RMB-denominated bond, while Japan has indicated that it will buy some Chinese government bonds, presumably to add to its reserve portfolio. Moreover, the arrangement is likely to serve as a template for other such bilateral arrangements between China and other countries in Asia.

⁷⁰ See Prasad (2014) for more details.

⁷¹ See IMF, 2015.

⁷² For details on the China–Japan agreement, see “Enhanced Cooperation for Financial Markets Development between China and Japan.” People's Bank of China Press Release. December 25, 2011.

7. Implications of the RMB's Inclusion in the IMF's SDR Basket

The IMF's Special Drawing Rights (SDRs) is an international reserve asset created by the institution in 1969. Since 2001, its value has been based on a basket of four reserve currencies—the U.S. dollar, the euro, the Japanese yen and the pound sterling. On November 30, 2015, the IMF executive board voted to expand the SDR basket to include the RMB. The new basket will become effective in October 2016.

The SDR is neither a currency nor a claim on the IMF but serves as a potential claim on the freely usable currencies of IMF members. SDRs are distributed among IMF members on the basis of their quotas at their institutions. The stock of SDRs now stands at roughly \$280 billion.⁷³ SDRs can in principle be exchanged for “freely usable” currencies but cannot be used directly in private transactions. This means that increasing the stock of SDRs does not increase the total liquidity of the global monetary system unless a substitution account is used. But such substitution accounts that would result in the net creation of global liquidity via SDR issuance may not be practical, in part because SDRs are not backed by a global central bank and have no support from a fiscal authority.⁷⁴

The RMB's inclusion in the SDR basket with a weight of 10.9 percent is an important symbol of the currency's ascendancy in global finance as it provides the currency with the IMF's imprimatur as an official reserve currency. This chapter discusses the process that led to the RMB's inclusion in the SDR basket and then reviews the implications of the IMF's decision.

7.1. How the RMB Staked Its Claim for SDR Inclusion

Technically, the SDR basket consists of the major currencies that are (i) issued by IMF members (or monetary unions that include IMF members) that are the largest exporters and (ii) have been determined by the IMF to be “freely usable.” The latter condition was added as a formal criterion only in 2000 and is clearly open to interpretation. The IMF's operational definition of a freely usable currency requires that it be (i) widely used to make payments for international transactions and (ii) widely traded in the principal exchange markets. That is, a freely usable currency is one that is liquid, convertible, and used for the settlement of international transactions. The objective of the freely usable currency concept in the context of IMF financing is to ensure that a member purchasing another member's currency under an IMF arrangement will be able to use it, directly or indirectly, to meet its balance of payments needs.

In March 2009, PBC Governor Zhou Xiaochuan issued a paper, “Reform the International Monetary System,” on the PBC's website.⁷⁵ The paper laid out the case for SDRs to play a more prominent role in global finance and suggested that the composition of the SDR needed to keep up with changing times by incorporating the currencies of the major emerging market economies. The proposal was seen as a signal that China was staking its claim to have the

⁷³ This is based on a stock of about 204 billion SDRs converted to U.S. dollars at the December 4, 2015 exchange rate of 0.72 SDRs per \$1.

⁷⁴ See Obstfeld (2011).

⁷⁵ See Zhou (2009).

RMB's global importance recognized by its inclusion in the exclusive group of currencies in the SDR basket.

The IMF's position in 2010 was clear and summarized as follows in a report on its Executive Board's discussion of the matter:

Directors noted that although China has become the third-largest exporter of goods and services on a five-year average basis and has taken steps to facilitate international use of its currency, the Chinese RMB does not currently meet the criteria to be a freely usable currency and it would therefore not be included in the SDR basket at this time. Directors urged that this issue be kept under review in light of developments.⁷⁶

Thus, it appeared that the IMF intended to apply the "freely usable" criterion strictly.

By 2011, the winds had shifted. There was considerable discussion that year about a proposal to include the RMB in the basket of currencies that constitute the SDR. The French government, during its presidency of the G-20 in 2011, promoted this proposal at several venues, viewing it as an important component of the reform of the international monetary system. At a G-20 Conference in Nanjing in March 2011, French president Nicolas Sarkozy made the following statement:

Isn't it the time today to reach agreement on the timetable for enlarging the basket of SDRs to include new emerging currencies, such as the [RMB]? Who could deny the major role the [RMB] plays in the international monetary system? Tribute is thus paid to the economic power and the political power of China, a major monetary power.⁷⁷

The communiqué issued at the conclusion of the November 2011 G-20 Summit in Cannes contained this language:

We agreed that the SDR basket composition should continue to reflect the role of currencies in the global trading and financial system and be adjusted over time to reflect currencies' changing role and characteristics. The SDR composition assessment should be based on existing criteria, and we ask the IMF to further clarify them. A broader SDR basket will be an important determinant of its attractiveness, and in turn influence its role as a global reserve asset. This will serve as a reference for appropriate reforms. We look forward to reviewing the composition of the SDR basket in 2015, and earlier if warranted, as currencies meet the criteria, and call for further analytical work of the IMF in this regard, including on potential evolution.⁷⁸

⁷⁶ "IMF Executive Board Completes the 2010 Review of SDR Valuation," IMF Public Information Notice 10/149.

⁷⁷ See "Address by Nicolas Sarkozy, President of the French Republic: Opening of the G20 Seminar on Reform of the International Monetary System," G20 Information Center, University of Toronto, March 31, 2011.

⁷⁸ See "Cannes Summit Final Declaration" G20 Information Center, University of Toronto, November 4, 2011.

During his final press conference at the conclusion of that summit, Sarkozy was more explicit: “The [RMB] is a clear candidate [for inclusion in the SDR basket], given China’s commitment—which I noted with satisfaction—to gradual convertibility.”⁷⁹

China itself had been more circumspect about the prospects of expanding the SDR basket. The deputy governor of the PBC (and also the head of SAFE), Yi Gang, urged the IMF to conduct more research into a shadow SDR and argued that “the IMF should consider including currencies of the BRICS [Brazil, Russia, India, China and South Africa—the world’s largest fast-growing emerging economies] countries and other emerging economies when it next reviews its SDR system by 2015.” But Yi was also quoted as saying that “China is in no hurry as the SDR has so far been only a symbolic currency basket.”⁸⁰

In November 2011, the IMF proposed the following indicators for evaluating a currency’s potential for inclusion in the SDR basket: (i) volume of transactions in foreign exchange spot markets; (ii) volume of transactions in foreign exchange derivatives markets and over-the-counter derivatives; (iii) existence of an appropriate market-based interest rate instrument; and (iv) currency composition of official reserve holdings.⁸¹

On August 4, 2015, the IMF released a report summarizing the approach for reviewing the composition and valuation of the SDR. The report noted that China met the gateway export criterion even at the time of the previous review in 2010 but that the RMB was not judged to be freely usable at the time. The report also noted that the RMB was by now “exhibiting a significant degree of international use and trading,” although at a level below those of the other four freely usable currencies that then constituted the SDR basket.⁸²

The report then summarized the requirements for the RMB’s inclusion in the SDR basket:

Availability of representative market-based exchange and interest rates is essential for the proper functioning of the SDR basket and the Fund’s financial operations, and the ability to hedge SDR-denominated positions is important to many Fund members and other SDR users. Restrictions on access to onshore markets pose difficulties in these areas, although some potential mitigating measures have been identified and the Chinese authorities have begun to implement such measures.⁸³

The paper also discussed a possible extension of the current SDR valuation basket for a period of nine months to September 30, 2016, without prejudging the timing and outcome of the review,

⁷⁹ See “G20 summit – Press conference given by Nicolas Sarkozy, President of the Republic,” November 4, 2011. <http://www.ambafrance-uk.org/President-Sarkozy-s-G20-summit>

⁸⁰ “China FX Head Proposes Adding BRICS Currencies to SDR,” *Reuters*, May 5, 2011.

⁸¹ The documents summarizing the IMF’s official positions are: “IMF Executive Board Completes the 2010 Review of SDR Valuation.” IMF Public Information Notice 10/149; “IMF Executive Board Discusses Criteria for Broadening the SDR Currency Basket.” IMF Public Information Notice 11/137. For more details on the underlying analysis, see “Criteria for Broadening the SDR Currency Basket.” IMF, September 2011.

⁸² “Review of the Method of the Valuation of the SDR—Initial Considerations” IMF, August 2015.

⁸³ “Review of the Method of the Valuation of the SDR—Initial Considerations” IMF, August 2015.

which would have to be concluded by the end of calendar year 2015. The reason given was that introducing a new basket on the first trading day of the new year would expose SDR users to increased risks and costs. A longer lag would help reduce uncertainty for SDR users and facilitate continued smooth SDR-related operations.⁸⁴ This proposal was approved by the IMF's executive board on August 20, 2015. This approval was misinterpreted in some media reports as a delay in the deadline for the IMF's review of the composition of the SDR basket.⁸⁵

The widely traded assessment considers whether a member can transact a sizable amount of the currency at any time with the reasonable assurance that the market for that currency has sufficient depth so that no appreciable change in the exchange rate will occur. While aggregate foreign exchange market turnover is generally correlated with a market's depth, breadth, and resilience, other indicators of the extent of usage in international markets is relevant as well. The RMB's share of foreign exchange turnover has increased substantially, albeit from a low base. A broad range of other indicators also shows increasing international use of the RMB, although again from a low base (the list includes official foreign exchange reserves, international banking liabilities, stock and issuance of international debt liabilities, SWIFT cross-border payments, and SWIFT trade finance).

In applying the "widely traded" criterion, a determination is required as to what constitutes the "principal exchange markets." Trading activity now occurs virtually around the clock, with a large share of transactions either through electronic trading platforms or using prices set with reference to them. Nonetheless, market activity and trading volumes remain closely tied to the business hours of major financial centers. In this context, "principal exchange markets" are best understood in terms of three broad time zones—corresponding roughly to the Asian, European, and North American market hours—rather than geographical market locations. In light of the requirement for a currency to be widely traded in multiple, but not necessarily all, principal markets, this could lend itself to the interpretation that members need to be reasonably assured of sufficient market depth in at least two of the three time zones.

The report noted that deviations between the offshore (CNH) and onshore (CNY) RMB exchange rates raised potential operational issues. Deviations between the two rates imply that the CNH cannot be a perfect hedge for CNY-based exposures.⁸⁶ This had become a significant concern in the aftermath of the August 11, 2015 exchange rate move, which led to a sizable gap between the two rates (see the discussion in Chapter 3). The report noted that further liberalization of cross-border capital flows would help to reduce CNY–CNH divergences in the future.⁸⁷

Availability of an appropriate interest rate instrument for the SDR basket was another key operational requirement. An assessment of a range of money-market interest rates suggested that

⁸⁴ "Review of the Method of the Valuation of the SDR—Initial Considerations" IMF, August 2015.

⁸⁵ IMF Press Release No. 15/384 "IMF Executive Board Approves Extension of Current SDR Currency Basket Until September 30, 2016," August 19, 2015. For an example of a press report that misinterpreted this release, see "China was just dealt a major blow to the renminbi," *Business Insider Australia*, August 19, 2015.

⁸⁶ "Review of the Method of the Valuation of the SDR—Initial Considerations" IMF, August 2015.

⁸⁷ "Review of the Method of the Valuation of the SDR—Initial Considerations" IMF, August 2015.

the three-month sovereign yield, which is published daily by the China Central Depository and Clearing Company (CCDC), was a potentially suitable candidate according to the IMF.

Giving members the ability to hedge their SDR-valued positions was also regarded as important. The onshore and offshore markets already trade interest rate and exchange rate forwards and swaps, repos, cross-currency swaps, and some options. But the report noted that capital controls have constrained onshore liquidity and activity at longer tenors. The report states that the authorities have been easing restrictions on access to onshore markets, which should facilitate hedging and other operations by IMF members and other SDR users.⁸⁸

One important point is that full currency convertibility (i.e., a fully open capital account) is not regarded as either a necessary or sufficient condition for satisfying the free usability criterion. The report stated that a “currency may be widely used and widely traded even if the issuing member retains some restrictions . . . [but there needs to be] sufficient liberalization within the market in question to ensure that members who may receive financing from the Fund have adequate access to this market.”⁸⁹ Moreover, the report made clear that many of the necessary conditions—convergence of the onshore and offshore exchange rates, availability of hedging instruments, and foreign exchange market liquidity—would all be easier to meet if capital account restrictions were liberalized.⁹⁰

The overall assessment of this issue by the report was as follows:

On the operational side, a number of issues would need to be resolved if the RMB were included in the SDR basket. Suitable exchange rates for SDR valuation and for the RMB/SDR exchange rate for Fund operations appear to be available, and potential operational difficulties arising from divergences between offshore and onshore exchange rates could be gradually mitigated by increasing investor access to the onshore market. Member access to the onshore market is required if CNY rates are used in the context of Fund operations and might be needed to secure adequate depth in FX markets. The three-month sovereign yield could potentially be a suitable interest rate instrument for SDR basket inclusion, but further analysis is needed to verify that it is appropriate for this purpose. Similarly, hedging instruments are becoming increasingly available. The PBC has recently announced a package of reforms in these areas and staff is assessing whether they ensure sufficient access to the onshore markets for members and SDR users. The authorities are working closely with staff on outstanding issues in this area.⁹¹

The report concluded with an intriguing paragraph that speaks for itself:

The ultimate assessment by the Board will involve a significant element of judgment. The rapidly changing nature of RMB usage in the world trade and financial system poses challenges for the assessment. Judgment will have to be applied, including on the

⁸⁸ “Review of the Method of the Valuation of the SDR—Initial Considerations” IMF, August 2015.

⁸⁹ “Review of the Method of the Valuation of the SDR—Initial Considerations” IMF, August 2015.

⁹⁰ “Review of the Method of the Valuation of the SDR—Initial Considerations” IMF, August 2015.

⁹¹ “Review of the Method of the Valuation of the SDR—Initial Considerations” IMF, August 2015.

importance of the various indicators and their proximity to the freely usable concept.⁹²

7.3. The Decision and Its Implications

On November 13, 2015, Ms. Christine Lagarde, managing director of the IMF, issued the following statement:

The staff of the IMF has today issued a paper to the Executive Board on the quinquennial review of the SDR. A key focus of the Board review is whether the Chinese renminbi (RMB), which continues to meet the export criterion for inclusion in the SDR basket, also meets the other existing criterion, that the currency be “freely usable”, which is defined as being “widely used” for international transactions and “widely traded” in the principal foreign exchange markets. In the paper, IMF staff assesses that the RMB meets the requirements to be a “freely usable” currency and, accordingly, the staff proposes that the Executive Board determine the RMB to be freely usable and include it in the SDR basket as a fifth currency, along with the British pound, euro, Japanese yen, and the U.S. dollar. The staff also finds that the Chinese authorities have addressed all remaining operational issues identified in an initial staff analysis submitted to the Executive Board in July. I support the staff’s findings. The decision, of course, on whether the RMB should be included in the SDR basket rests with the IMF’s Executive Board.⁹³

The U.S. Treasury signaled its support for the IMF staff’s position. On its web site, it noted that, at a meeting with senior Chinese officials, “Secretary Lew reiterated that the United States intends to support the renminbi’s inclusion in the Special Drawing Rights basket provided the currency meets the International Monetary Fund’s existing criteria, and the United States is reviewing the IMF’s paper in that light.”⁹⁴

On November 30, 2015, the IMF executive board announced its decision to incorporate the RMB into the SDR basket with effect from October 1, 2016.⁹⁵ The IMF also changed the formula used to calculate the shares of currencies in the SDR basket (the shares have to sum up to 100). The new formula is meant to better reflect the rising importance of cross-border financial flows in addition to trade flows. The formula assigns equal weight to exports and a financial indicator, reflecting a country’s importance in global trade and the currency’s importance in global financial markets, respectively. The financial indicator is a composite variable that assigns a 50 percent weight to the share of reserves denominated in that currency, a 25 percent weight to

⁹² “Review of the Method of the Valuation of the SDR—Initial Considerations” IMF, August 2015.

⁹³ IMF Press Release No. 15/513, November 13, 2015.

⁹⁴ U.S. Department of the Treasury. Readout from a Treasury Spokesperson of Secretary Lew’s Meeting with Chinese Vice Premier Wang Yang and Finance Minister Lou Jiwei at the G-20 Leaders Summit in Antalya. November 15, 2015.

⁹⁵ “IMF’s Executive Board Completes Review of SDR Basket, Includes Chinese Renminbi,” IMF, November 30, 2015.

foreign exchange turnover accounted for by that currency, and a 25 percent weight to the sum of international banking liabilities and international debt securities denominated in that currency.⁹⁶

Under the new formula, the weights of the SDR currencies are as follows: 41.7 percent for the U.S. dollar; 30.9 percent for the euro; 10.9 percent for the RMB; 8.3 percent for the Japanese yen; and 8.1 percent for the pound sterling. The new basket of currencies with these weights will take effect on October 1, 2016. Interestingly, the U.S. dollar's share, which was 41.9 percent in the previous SDR basket, was essentially unchanged while the shares of the other three currencies fell significantly compared with their shares in the previous basket.

The IMF's decision is an important validation of China's efforts over the past year to liberalize financial markets, open up its capital account, and allow the RMB's value to be determined to a greater extent by market forces. Progress in all of these areas has been slow and uneven as described in earlier chapters, but in a relative sense these reforms have outstripped those in other areas such as state-owned enterprise reform, liberalization of the services sector, and other reforms to the "real" side of the economy where progress has been limited at best.

However, developments in both equity and currency markets since November 2015 point to the challenges that persist in financial market liberalization. Equity markets remained volatile into 2016, falling substantially in the first half of January 2016. The RMB continued to depreciate further relative to the dollar during this period. The spread between the CNY and CNH exchange rates widened again, with the RMB worth less offshore than on the onshore market. The PBC was reported to have intervened heavily in the offshore (CNH) market on January 12, forcing convergence of the two exchange rates and sharply driving up RMB borrowing costs in Hong Kong.⁹⁷ News reports also indicated that the PBC was limiting dollar purchases by households and corporations in order to limit capital outflows and support the RMB.⁹⁸ These measures, which are presumably temporary, do not necessarily mean that the PBC is rolling back the shifts towards capital account opening and a more flexible exchange rate.

These actions also do not by themselves invalidate or bring into question the technical aspects on which the IMF based its determination of the RMB's eligibility to be included in the SDR basket. However, such actions would certainly pose some technical difficulties for the RMB's inclusion in the SDR basket if they were to persist for an extended period. Deviations between the onshore and offshore exchange rates would vitiate the notion of the onshore rate being a "market-based exchange rate" that could be used as a representative exchange rate for the RMB. As the IMF's August 2015 report puts it, "Deviations between the two rates imply that the CNH cannot be a perfect hedge for CNY-based exposures."⁹⁹ The impact of this divergence on SDR users would be mitigated if they had access to both the onshore and offshore markets for conducting spot exchange rate transactions, which is not presently the case.

The IMF's positive decision should help strengthen the hands of economic reformers in China

⁹⁶ The previous formula essentially involved summing up the country's exports and the stock of global foreign exchange reserves held in assets denominated in its currency.

⁹⁷ "Intervention as Offshore Shorts Get Squeezed," *Bloomberg News*, January 12, 2016.

⁹⁸ "China Steps Up Capital Controls to Stem Outflows," *Financial Times*, January 8, 2016.

⁹⁹ "Review of the Method of the Valuation of the SDR—Initial Considerations" IMF, August 2015.

and enable them to sustain momentum on financial sector liberalization and reforms. However, progress even in this area is far from certain. Domestic opposition to further financial sector reforms and market-oriented liberalization measures remains fierce, and the IMF decision by itself is unlikely to shift the balance substantially.

The decision will therefore not be an immediate game-changer in terms of generating a surge of capital inflows into China. SDRs currently account for less than 3 percent of reserve asset holdings worldwide, so the direct effect of including the RMB in the SDR basket will not be large. Private financial institutions do not have any portfolios that are benchmarked against SDRs, so no portfolio rebalancing effect will follow. But the symbolic effect could be significant, as the RMB's recognition as an official reserve currency is likely to encourage central banks around the world to begin adding RMB assets to their reserve portfolios. The IMF's imprimatur will help, but ultimately it is the availability of sufficient high-quality RMB-denominated financial assets and the ease of moving financial capital into and out of China that will determine the RMB's trajectory as a reserve currency.

There could be significant effects on the patterns of global capital flows if this decision does lead to further financial sector reforms, capital account liberalization, and exchange rate flexibility in China. These changes would open the doors for more capital inflows into China and also further tilt the composition of China's outflows away from foreign exchange reserve accumulation by the central bank, as it will spur more foreign investments by China's households, corporations, and institutional investors.

The IMF argued that its decision would be good for both China and the international monetary system, stating:

Put into a broader context, the inclusion of the [RMB] in the SDR basket could be seen as an important milestone in the process of China's global financial integration. It also recognizes and reinforces China's continuing reform progress. As this integration continues and further deepens, and is paralleled in other emerging market economies, it could bring about a more robust international monetary and financial system, which in turn would support the growth and stability of the global economy. The RMB's inclusion will also enhance the attractiveness of the SDR as an international reserve asset, as it diversifies the basket and makes its composition more representative of the world's major currencies.¹⁰⁰

¹⁰⁰ The IMF has posted a Q&A about its decision at: <http://www.imf.org/external/np/exr/faq/sdrfaq.htm>.

8. Sequencing and Transitional Risks

It is important to understand how China has sequenced capital account liberalization relative to other policy changes and how that affects the benefit/risk trade-off from capital account opening. This sequencing has implications for China's growth and financial stability, and therefore for the RMB's international role.

Is China putting the cart before the horse by pushing forward with capital account opening before fully freeing up its exchange rate? There is considerable evidence from other developing economies' experiences that opening up the capital account without a flexible exchange rate is risky.¹⁰¹ A fixed or tightly managed nominal exchange rate makes it harder to cope with capital flow volatility because the exchange rate cannot act as a shock absorber.

An analysis of China's international investment position that both traces its evolution over time and provides a cross-country perspective suggests that the economy faces only modest risks from a more open capital account in terms of vulnerability to external shocks. China's gross capital inflows since 2000 have been mostly in the form of FDI. An examination of China's latest international investment position confirms that FDI liabilities now account for 56 percent of China's total (gross) external liabilities (see Table 2-1, Chapter 2). FDI and portfolio equity together account for 70 percent of external liabilities. FDI is considered the best type of capital inflow because it is stable and often brings with it transfers of technological and managerial expertise. Portfolio equity flows tend to be associated with the collateral benefit of developing and deepening domestic equity markets, but tend to be more volatile than FDI. Nevertheless, this structure of liabilities—dominated by FDI and portfolio equity—is consistent with the objective of sharing risk across countries, with foreign investors bearing capital as well as currency risk on such investments.

Another source of risk is that an open capital account often encourages an accumulation of external debt. Short-term foreign-currency-denominated external debt has been the scourge of emerging markets and was a major source of vulnerability for Latin American and Asian economies during the 1980s and 1990s. China has traditionally had a low level of external debt, which amounted to about \$900 billion or 9 percent of GDP in 2014, much lower than that of any other major emerging market.¹⁰² China's overall external balance sheet shows that its economy is quite well insulated from external shocks as net foreign assets amounted to nearly \$1.4 trillion in the first quarter of 2015. In other words, China has enough foreign assets to not only meet all its external debt obligations but also to more than cover all of its foreign liabilities. In short, China is not subject to the traditional risks associated with opening up the capital account in advance of increasing exchange rate flexibility.

¹⁰¹ For a discussion of the issue of sequencing capital account liberalization in the context of China, see Prasad, Rumbaugh, and Wang (2005) and references therein. Goodfriend and Prasad (2007) discuss the implications of China's exchange rate regime for monetary policy formulation and implementation. For a description of the challenges facing China's financial system, see Lardy (2011) and Prasad and Ye (2012).

¹⁰² IMF, 2015.

The bigger risks may be domestic. The combination of a tightly managed exchange rate and an increasingly open capital account undermines the ability of the central bank to use monetary policy instruments such as interest rates to maintain domestic price stability. Although its capital account is not fully open, this constraint applies to China as well because the capital account is in fact rather porous and becomes even more so when interest differentials with the rest of the world increase and the incentives to evade controls strengthen.¹⁰³ If the United States has low rates while China ought to have higher interest rates to manage inflation, the Chinese central bank is constrained in raising rates as that may attract more inflows. Indeed, the expectations of RMB appreciation in previous years that resulted from the tight management of the RMB's value may have fueled more speculative inflows. The reverse is true as well. As discussed in greater detail below, capital outflows at a time of domestic economic weakness can also complicate domestic policymaking.

Moreover, lifting restrictions on capital flows could also be risky for the financial system. Further freeing-up of outflows while maintaining a cap on deposit interest rates could cause households and corporations to shift deposits out of the banking system. Banking sector earnings had traditionally depended heavily on net interest margins that are mandated by the government through the deposit rate ceiling, which has now been dismantled, and, until July 2013, the lending rate floor. Substantial deposit withdrawals for other reasons, including concerns about the stability of the banking system, can themselves damage banks and strain the entire domestic financial system.

How worried should China be about these risks? The government's control of its financial markets, combined with the resources needed to back up its banks, should prevent these risks from escalating into a full-blown banking or broader financial crisis. Nevertheless, it could require extensive government resources to keep the system stable in difficult times. Even discounting the possibility of a systemic crisis in the Chinese financial system, there are many fragilities in the banking system and in the unregulated parts of the financial system that are cause for serious concern. A capital account that is becoming increasingly open could exacerbate these tensions. So how is China managing the difficult act of getting the sequence of its reforms right?

The literature on financial openness indicates that its potential benefits—in terms of both risk-sharing and growth—become apparent only after a country has attained a high level of financial integration. For a country that is in the process of opening up its capital account, there are significant transitional risks if it falls below certain threshold conditions, especially those related to domestic financial and institutional development. A difficult paradox results from the fact that financial opening itself serves as a catalyst for financial market development and improvements in institutions, especially corporate governance. There is no general recipe for how to strike the right balance between these collateral benefits and the risks of premature capital account liberalization.¹⁰⁴ The academic literature on this topic suggests that the transitional risks cannot be eliminated, but they can be mitigated through supporting conditions such as greater exchange

¹⁰³ See Goodfriend and Prasad (2007).

¹⁰⁴ See Kose, Prasad, Rogoff, and Wei (2009).

rate flexibility and a more selective approach to capital account liberalization that is designed to attain certain specific collateral benefits.¹⁰⁵

8.1. Controlled Liberalization to Manage Risks during Transition

Some commentators (including the author of this report) have in the past argued that a piecemeal approach to reforms may not be tenable for China when it comes to issues such as exchange rate flexibility and capital account liberalization.¹⁰⁶ The logic seems straightforward—making the currency more flexible gradually could lead to a wave of capital flooding into (or out of) the economy, depending on economic conditions and notwithstanding capital controls, as there would be a tempting opportunity for a one-way bet on the currency’s appreciation (or depreciation). Some researchers have also argued that there are good reasons for China to move ahead with exchange rate flexibility before opening up the capital account.¹⁰⁷

In practice, the Chinese government has in fact managed to sustain a gradual approach to making the exchange rate regime more flexible. It has been somewhat more aggressive in its approach to capital account opening. For instance, as discussed in Chapter 2, the Chinese government liberalized outflows in 2010 in a calibrated manner through an expansion of the QDII scheme. The QDII approach gives the government much greater control over when and how much money could be taken offshore, as the QDIIs are given specific investment quotas each year. Such approaches allowing for private capital outflows in a controlled approach is better in many ways than the inefficient approach of having the government recycle foreign currency inflows through official channels in the form of reserve accumulation. The QDII scheme reduces the need for foreign exchange market intervention, gives private investors a chance to diversify their portfolios by increasing foreign investments, and also encourages Chinese banks to be more efficient by increasing competition in the financial system.

Similarly, the QFII and RQFII schemes that create more channels for inflows, along with the free trade zones and mutual fund connect and stock connect programs that allow for flows in both directions, are all part of the controlled approach to capital account liberalization. These programs allow the government to control the volume of flows in both directions and, to a significant extent, the composition of flows as well.

8.2 Capital Outflows

Even as the Chinese economy continued to post relatively robust growth rates in the aftermath of the financial crisis and became the main driver of world growth, political uncertainty related to the leadership transition during the summer and fall of 2012 led to concerns about capital flight from China.

¹⁰⁵ See Prasad and Rajan (2008).

¹⁰⁶ See, for instance, Prasad and Rajan (2008).

¹⁰⁷ See Prasad, Rumbaugh, and Wang (2005), and Prasad and Rajan (2005, 2006, 2008).

What was true even in 2012 was that weaker inflows and stronger outflows (including an increase in foreign currency deposits as exporters held more of their earnings abroad in foreign currencies) led to a more evenly balanced position of capital outflows and inflows. These swings seemed to be quite similar to those experienced by many other emerging markets.

In the first half of 2012, with the euro zone debt crisis worsening, investors worldwide appeared to be more concerned about safety than high returns. Consequently, there was a flow of capital out of emerging markets around the world to safe havens, especially to the United States but also to Japan and Switzerland. In August 2012, the European Central Bank announced its Outright Monetary Transactions (OMT) backstop for sovereign debt of the euro zone periphery economies. That eased immediate concerns about global spillovers from euro zone problems and capital started flowing back to emerging markets, including China.

These changes in the patterns and timing of flows illustrate one important point—that China is looking like many other emerging markets in terms of what factors lead to capital flowing in or out. Some of the increase in capital outflows from China is certainly consistent with the government's steps to liberalize outflows. Non-government outflows are likely to increase further as Chinese corporations look for investment opportunities abroad and as financial market development allows households to take advantage of avenues for diversifying their savings into foreign investments.¹⁰⁸

However, the scale of recent outflows indicates how quickly sentiments about economic and financial market conditions can shift. These capital flow surges in one direction or another can be exacerbated if the exchange rate is not allowed to adjust freely, and speculative pressures on the currency start building up.

The downward pressures on the RMB–dollar exchange rate after the PBC announced a shift to a more market-determined exchange rate on August 11, 2015 exemplify this phenomenon. In the immediate aftermath of this shift, which was accompanied by a nearly 2 percent devaluation of the RMB relative to the dollar (as noted earlier), financial market participants appeared to interpret the move as signaling Chinese policymakers' concerns about the state of the economy. This move, in tandem with the sharp fall in mainland stock markets since July 2015, appears to have increased outflows. Foreign exchange market intervention to keep the RMB's value from falling sharply in the second half of August led to a reduction in foreign exchange reserves. SAFE data indicate that the reserve losses may have been about \$94 billion, although it is not clear if any of this represents currency valuation effects on the value of China's massive foreign exchange reserve portfolio or actual foreign exchange market intervention.

China has taken major steps down the path of capital account liberalization that will be difficult to reverse. In the absence of other domestic reforms, especially the financial sector development and liberalization that are necessary to support a more open capital account, the result could be more volatility with few of the benefits of financial openness.

¹⁰⁸ For a discussion of China's outward investment strategy, see Rosen and Hanemann (2009) and Scissors (2011).

8.3 Capital Flight

A more worrisome aspect of capital outflows is related to capital flight, which could occur through both illegitimate and legitimate channels. One possibility, which is difficult to verify for obvious reasons, is that the government's crackdown on corruption is leading to some capital leaving the country for fear of expropriation as part of the crackdown process. On the other hand, these flows could also represent outward investments reflecting the same concerns about macroeconomic and financial stability laid out earlier. These factors are difficult to disentangle but the correlation between these two types of flows, which may rise when an economic slowdown and factors such as the corruption crackdown coincide, raises concerns about surges of capital outflows that in turn could threaten financial stability.

Casino operations in Macau have long been seen as a major conduit for money laundering and illicit capital flows. A variety of techniques are used to launder money through casinos and carry out cross-border monetary transfers for individual customers, sometimes without any actual transfer of funds involved.¹⁰⁹ A paper analyzing this phenomenon concludes,

There is no doubt that this channel can also serve for the movement of funds of an illicit origin, whether coming from corruption, embezzlement of public or private entities, or any other sources. Hence the particular need for rules and procedures for the detection of illegal transfers.¹¹⁰

Regulatory authorities on the mainland have long been cognizant of this conduit and have recently taken aggressive steps to combat these operations as capital flight has picked up. On August 21, 2015, the PBC and the Monetary Authority of Macao signed the Memorandum of Understanding on Prevention of Money Laundering and Terrorist Financing. In an official notice, the PBC said the agreement would strengthen bilateral exchanges, including those on anti-money laundering regulations, information exchange mechanisms, and on-site inspections.¹¹¹

¹⁰⁹ This text from Gordinho (2013) summarizes the types of transactions involved: "Briefly, money laundering through casinos generally has two types of objectives. The main objective is to pass the funds through the casino, typically taking as an entry point the buying of gambling chips, followed by the placing of bets, usually of reduced values or bets that in most cases cancel each other out (black and red on roulette, both teams in sports betting, etc.) in order to avoid significant amounts of losses. The gaming session ends with the redemption of the chips through the issuance of a casino check. A secondary objective may be to ensure that these transactions (buying chips, placing of bets, redeeming chips) are split or divided so that each does not exceed the value that triggers the automatic recording of operations, a practice known in the jargon as 'smurfing'. . . . Gaming promoters may assist in the transfer of funds to the casinos of Macau. In the case of VIP Baccarat, the amounts involved can be very significant. Moreover, in many cases, there will be no actual transfer of funds, but rather a simple balancing of accounts between credits in mainland China and debits in Macau. This is one of the reasons why the gaming promoter sector [in Macau] is rather developed."

¹¹⁰ See Gordinho (2013).

¹¹¹ "Monetary Authority of Macao and People's Bank of China entered into MOU on Prevention of Money Laundering and Terrorist Financing," PBC Press Release, August 21, 2015. <http://bit.ly/1YDAKwP>; and "Mainland, Macao ink pact to fight money laundering" The State Council, August 22, 2015. <http://bit.ly/1Tgjom9>.

An alternative channel that has been identified by SAFE is also difficult to measure but is regarded as widely prevalent. This channel is related to informal financial institutions that act as conduits for cross-border transfers. The system works as follows: At agreed-to exchange rates, underground banks transfer foreign currency funds to the offshore banking accounts of wealthy individuals while receiving local currency funds using anonymous domestic accounts, with no actual capital moving across the border. The accounting is balanced through shell companies, false invoices, and other instruments. According to SAFE,

the PBoC [the PBC], the Ministry of Public Security, the Supreme People's Court, the Supreme People's Procuratorate and the SAFE took a nationwide special action against transfer of illegal income through offshore companies and underground banks in mid-to-late April, and have solved some major underground bank cases, thus strongly intimidating lawbreakers.¹¹²

China's Ministry of Public Security is reported to have recently cracked down an illegal foreign-exchange network that it said handled up to \$64 billion in transactions. In early September, authorities discovered 37 underground banking dens accounting for deals totaling more than \$38 billion, according to a statement on the ministry's website.¹¹³

Trade misinvoicing is another well-recognized way to circumvent capital controls. Overinvoicing imports or underinvoicing exports is a method of transferring funds out of a country. During the mid-2000s, when there was considerable incentive to bet on RMB appreciation, China faced the opposite problem of imports being underinvoiced and exports being overinvoiced. This problem provided a conduit for capital inflows. Such misinvoicing is even easier in the case of services trade, where it is harder to match financial flows with actual trade transactions since there are no tangible goods involved.¹¹⁴

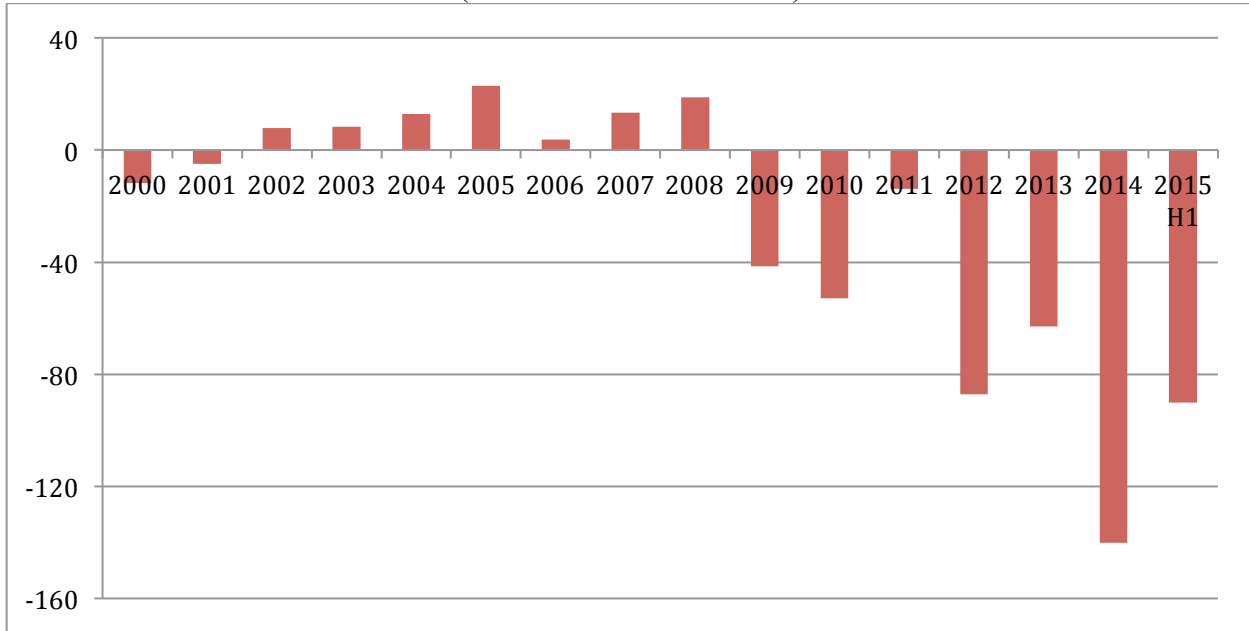
By definition, illicit capital flows are difficult to measure. One widely used measure based on official data is the net errors and omissions (NEOs), which is the residual in the balance of payments accounting and reflects unrecorded capital account or current account transactions. Negative NEOs typically reflect money leaving the country through unofficial channels. For China, NEOs have been persistently negative since 2009 (Figure 8-1). During 2014, such outflows amounted to \$140 billion and in the first half of 2015 alone they amounted to \$90 billion.

¹¹² Press Conference on SAFE's Policies for 2015 Q3, <http://bit.ly/1MRsvFV>.

¹¹³ Press Conference on SAFE's Policies for 2015 Q3 <http://bit.ly/1MRsvFV>; "China police reveal busted illegal banking operation," *Wall Street Journal*, November 20, 2015; and "China arrests 75 in crackdown on underground banks," *Reuters*, September 30, 2015.

¹¹⁴ See, for instance, Andreas Buehn and Stefan Eichler, 2011, "Trade Misinvoicing: The Dark Side of World Trade," *World Economy*, Vol. 34:8, pp. 1263-1287.

Figure 8-1. China: Net Errors and Omissions
(in billions of U.S. dollars)



Source: SAFE via CEIC

A number of other motives for capital flows from China to the United States, through both legitimate and illegitimate channels, exist. One is related to real estate purchases, which may also have been boosted by safe haven inflows into the United States during the anti-corruption drive in China. These purchases could also reflect the desire on the part of Chinese investors to diversify their portfolios into hard assets at a time of low worldwide yields from fixed-income assets and volatile returns on equities. The U.S. National Association of Realtors reports that sales of residential real estate to Chinese clients (including those from Hong Kong and Taiwan) now exceed sales to clients from any other country. For the 12-month period ending in March 2015, the estimated value of sales to Chinese clients was about \$28 billion, more than double the level of \$13 billion in 2013, and more than double the sales to clients from any other country.¹¹⁵ Flows into other housing markets, such as those in Hong Kong, have also been large and volatile in recent years.¹¹⁶

Another factor that could be boosting inflows into the United States is related to the large number of tuition-paying Chinese students enrolled in U.S. institutions of higher education. The Institute of International Education estimates that about 305,000 Chinese students were enrolled in U.S. universities in 2014-15, representing 31 percent of the total foreign student enrollments

¹¹⁵ “Chinese Pull Back from U.S. Property Investments,” *Wall Street Journal*, November 27, 2015.

¹¹⁶ For an analysis of the effects of official and illegitimate capital flows from mainland China on equity and property market prices in Hong Kong, see Yin-Wong Cheung, Kenneth K. Chow and Matthew S. Yiu, 2015, “The Nexus of Official and Illicit Capital Flows - The Case of Hong Kong,” HKIMR Working Paper No. 25/2015.

in U.S. universities.¹¹⁷ China's government does not bar the transfer of funds abroad for educational purposes, which could be fueling financial flows to other countries such as the United Kingdom as well.

A third category is related to procurement of visas that are (or, in the case of Canada, were) offered to investors who can bring in large sums of money and create jobs. In the United States, EB-5 immigrant visas provide a path for obtaining permanent residency (green cards) for foreigners who invest a minimum of \$500,000 and create at least 10 jobs in the country. The program, which caps the annual number of visas issued at 10,000, hit that limit for the first time in August 2014. Chinese nationals accounted for nearly 90 percent of EB-5 visas issued during 2014, compared with just 13 percent in 2004. That translated to 8,308 EB-5 visas for Chinese nationals last year, a huge surge from a decade ago, when only 16 visas were granted to Chinese.¹¹⁸

Although it may be premature to declare a capital flight crisis, particularly given China's relatively strong external balance sheet with a relatively low level of external debt and a large stock of foreign exchange reserves, the government is certainly concerned about illegitimate outflows and the fact that they may exacerbate overall capital outflows and add to macroeconomic stresses the economy is already facing. This may be one reason the government is reluctant to let the RMB depreciate significantly against the dollar.

The key challenge the government faces is to stabilize market expectations about the future path of the currency. The PBC's response has been to try and generate two-way volatility in the RMB-dollar exchange rate in order to forestall speculative activity. The PBC has done this through aggressive intervention in both the onshore and offshore foreign exchange markets. This could prove to be an expensive and unviable strategy, especially since it is in conflict with the objective of allowing for a more market-determined exchange rate. An approach that is likely to have more success is to let the currency float more freely and directly address concerns about the trajectory of the economy using a balanced mix of macroeconomic policies and market-oriented reforms to the real side of the economy. In the absence of such reforms, and if the economy continues to lose growth momentum, capital flow and currency dynamics could become even more difficult to manage, adding to the risks of short-term financial and macroeconomic instability.

¹¹⁷ See, Institute of International Education, "Top 25 Places of Origin of International Students," <http://www.iie.org/Research-and-Publications/Open-Doors/Data/International-Students/Leading-Places-of-Origin/2013-15>

¹¹⁸ These figures are based on government data compiled by CNNMoney. See "U.S. runs out of investors again as Chinese flood program," *CNNMoney*, April 15, 2015.

9. The RMB's Impact on the World

This chapter analyzes the potential impact of the RMB's rise on the competitive balance of global reserve currencies, and discusses the effects that the internationalization of the RMB could have on the structure of global capital flows.

9.1. Effects on the Asian and International Monetary Systems

Promoting the RMB's international role is tied up with many complex domestic and geopolitical considerations. As with all of its policies, China is working towards multiple objectives. For now, China will continue promoting the international use of the RMB using Hong Kong as a platform. When the Chinese government determines that its financial markets are finally strong enough to allow for a more open capital account, it is likely that promotion of Shanghai as an international financial center could take precedence, especially as that would fit better with its domestic financial market development objective.

While using Hong Kong as the main staging ground for the internationalization of the RMB, the Chinese government is also working to promote competition among financial centers eager to engage in RMB business. Regional and international financial centers such as Bangkok, Frankfurt, London, and Singapore are all being given opportunities to engage in RMB transactions. This competition enables Beijing to continue its program of internationalizing the RMB without having to fully open its capital account.

Why are so many countries eager to sign currency swap lines with China and even hold its currency as part of their reserve portfolios? This may be less a sign of the RMB's inevitable march to global dominance than it is a low-cost bet on a likely outcome of a convertible and more widely accepted global currency. Equally important is the desire on the part of many economies to maintain a good economic relationship with China in anticipation of its rising economic power. Holding RMB reserves may in effect be a simple way of trying to buy protection from China, which in turn may be better motivated to provide help to a central bank that has assisted the RMB in its early stages of ascendance. The amounts are small but still the symbolism is hard to miss. Central banks around the world are preparing for a future in which the RMB will start playing an increasingly prominent role in international finance and may ultimately become a reserve currency. A more open capital account will allow the RMB to play an increasingly significant role in Asian as well as global trade and finance, but in a manner that allows the Chinese government to retain some control over capital flows.

9.2. Will the RMB's Rise Add Stability to Regional and Global Finance?

There is no clear guidance from economic theory about how many currencies would be best for a world economy that is becoming increasingly closely integrated. Having a system with multiple reserve currencies but with just one principal reserve currency has fueled a number of complications such as persistent global current account imbalances, suggesting that it may not be

the optimal situation from the perspective of promoting the stability of the global financial system.¹¹⁹

If multiple reserve currencies are indeed desirable, how should one assess the prospects of other currencies that could compete with the dollar? The history of the rise and fall of reserve currencies does offer some useful lessons. The key is for a country to have sound economic policies, well-developed financial markets, and public institutions that are trusted by domestic and foreign investors. These are the relevant criteria that put a country's currency in a position to develop into a reserve currency.

The argument for a world with multiple reserve currencies in a stable competitive equilibrium might be obvious if the world economy was starting with a clean slate. But the argument is far from clear cut given the present state of financial markets and the level of international financial integration. Events during the financial crisis present a counter-argument to the notion that having more reserve currencies is better.

The dollar's dominance has allowed the Fed to act as a credible global lender of last resort, a role that few other central banks are capable of playing. However, there is a risk of confusing cause and effect here. One reason the world was in search of dollar liquidity during the crisis is that many global banks had sought large amounts of cheap dollar funding to finance their worldwide operations. U.S. monetary conditions, which led to an aggressive search for yield through financial innovations, and the fertile ground provided by U.S. financial markets for such sophistry, were important elements in making many global banks depend so heavily on dollar liquidity.

While the RMB is likely to become a significant reserve currency over the next decade, it is unlikely to challenge the dollar's dominance. There is still a huge gulf between China and the United States in the availability of safe and liquid assets such as government bonds. The depth, breadth, and liquidity of U.S. financial markets will serve as a potent buffer against threats to the dollar's preeminent status. Rather than catching up to the United States by building up debt, the challenge for China is to develop its other financial markets and increase the availability of high-quality RMB-denominated assets.

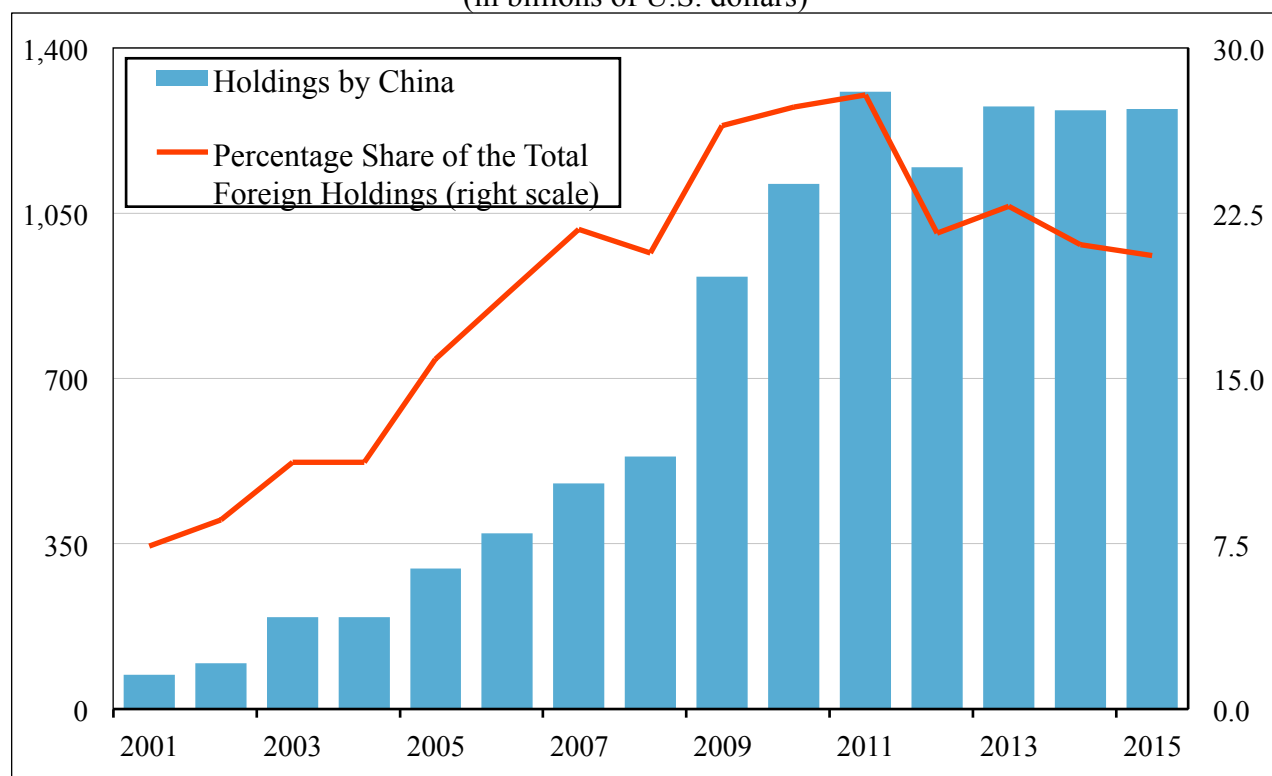
9.3. Implications of a Rising RMB for China–U.S. Financial Flows

China does not report the currency composition of its foreign exchange reserve holdings, but it is widely believed that about two-thirds are in U.S.-dollar-denominated instruments. Data drawn from the U.S. Treasury International Capital System (TIC) provide at best a partial picture because they track the country of the purchasing agents rather than the actual owners of U.S. securities. Based on the TIC data, the total value of China's reported holdings of Treasuries and agency bonds as of July 2015 was \$1.24 trillion. This total amounts to about 21 percent of the \$6 trillion worth of Treasury securities held by all foreign investors, including foreign central banks (Figure 9-1). This share is down from 28 percent in 2011.

¹¹⁹ The discussion in this section draws on Prasad (2014).

The TIC data suggest that the absolute amount of Treasury securities held by China has remained relatively stable over the past three years, even though China’s foreign exchange reserves have fallen by nearly \$500 billion since June 2014. Thus, it does not appear that China has been selling U.S. Treasury securities while trying to prevent RMB depreciation. China’s declining share of U.S. government debt ownership indicates that other investors, both domestic and foreign, are maintaining their strong demand for U.S. Treasuries. Moreover, given the U.S. federal government’s substantially lower financing needs at present, especially relative to the period during and in the immediate aftermath of the financial crisis, it is unlikely that reduced purchases of Treasury securities by China will have a substantial effect by itself on the U.S. Treasury yield curve.

Figure 9-1. China’s Holdings of U.S. Treasury Securities
(in billions of U.S. dollars)

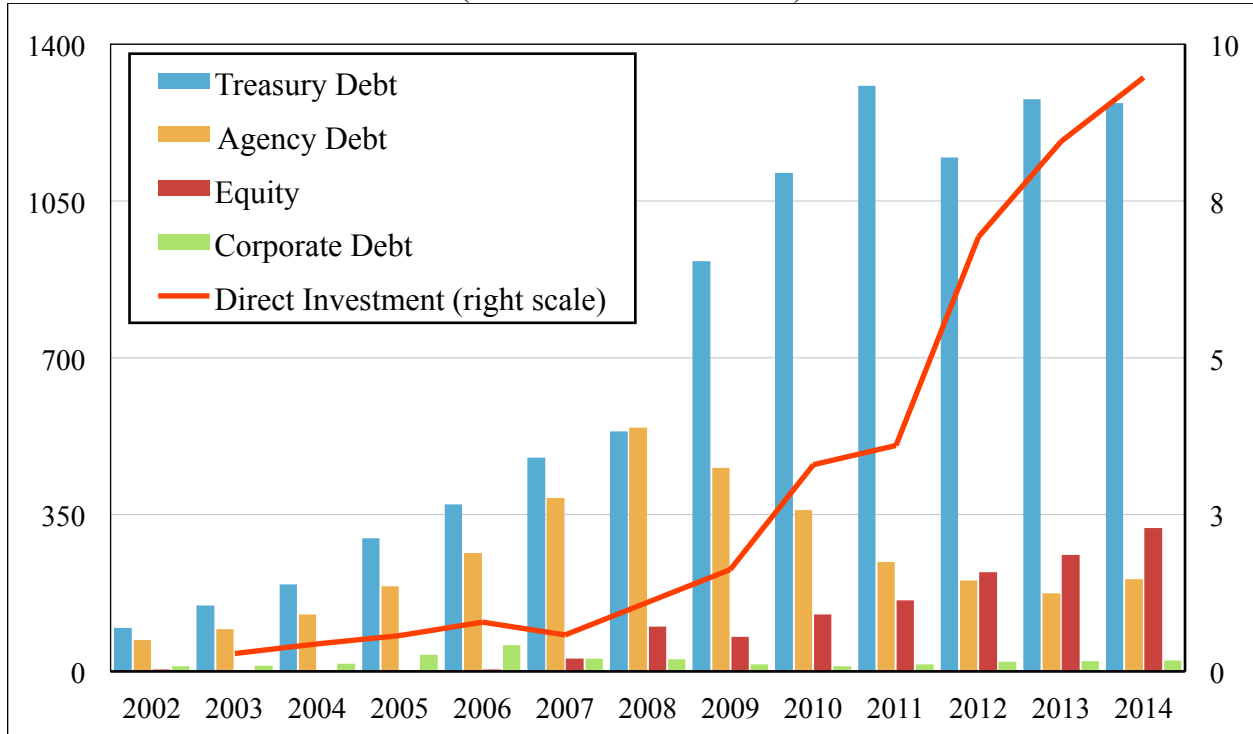


Source: U.S. Treasury International Capital System

Note: This chart shows Treasury holdings by China as of end-June each year.

An analysis of China’s investment position in the United States shows that Treasury and agency debt (issued by U.S. government-sponsored enterprises) continues to dominate in the total stock position (Figure 9-2). Chinese portfolio investment in the United States has expanded rapidly, from \$29 billion in 2007 to \$320 billion in 2014. Direct investment from China to the United States has been growing rapidly but, in absolute amounts, still stands at a relatively modest \$9.5 billion in 2014.

Figure 9-2. Breakdown of China's Investment Position in the United States
(in billions of U.S. dollars)



Sources: Bureau of Economic Analysis and U.S. Treasury International Capital System

Notes: This chart shows the position of China's direct investment and other types of securities holdings in the U.S. Except for direct investment, all other categories are based on data at end-June each year. Data on China's direct investment position are unavailable before 2003.

China's capital account liberalization could have significant effects on the volume and, more importantly, the composition of investments in the United States. The major channel for capital flows to the United States has been the official accumulation of foreign exchange reserves, as suggested by the numbers above. A more flexible exchange rate and a broader financial system that facilitates hedging against currency risk would reduce reserve accumulation while simultaneously reducing the "fear of floating" (i.e., concerns about currency volatility). A deeper and broader financial system would also reduce the risks from the greater capital flow volatility to which China will be exposed as the capital account becomes more open. For instance, a richer set of derivatives markets would enable private agents, including corporations, to insure against a variety of risks associated with capital flows, mitigating the need for reserves as a public insurance mechanism.

Shifting away from policies that intensify reserve accumulation would also allow China to change the structure of its foreign investments. In particular, capital outflows would reduce the pressure on the currency. In the absence of well-developed financial markets that facilitate foreign investments by households, this function of investing abroad is to some extent being carried out by other government agencies. China's sovereign wealth fund, the China Investment Corporation (CIC), and other large institutional investors are already moving aggressively into investments that offer higher yields than U.S. Treasuries or government bonds of other reserve currency economies. CIC is shifting away from government bonds into higher-yielding assets.

The share of equity holdings in its portfolio rose from 36 percent in 2009 to 48 percent in 2010. Among its diversified fixed-income securities, roughly a third were invested in corporate bonds in 2010, compared with 13 percent in 2009.¹²⁰

As Chinese financial markets continue to develop and private investors increase the international diversification of their portfolios, these shifts in China's outward investment patterns are likely to become more pronounced. At present, China invests a relatively small amount in U.S. equities. This is likely to shift as capital account openness leads to more capital flowing out of China in search of diversification and yield. This could result in rising flows into various asset markets in the United States, from equities to real estate.

Thus, the various policy reforms that are needed to support the international role of the RMB could also create significant changes in China's economy and the patterns of its capital inflows and outflows, both overall and also specifically from and to the United States.

9.4. Effects of the RMB's Rise on the U.S. Dollar

It is likely that, as the RMB becomes a prominent international currency, and as the costs of transacting in the RMB and other emerging market currencies falls, the dollar's prominence as a unit of account (for denominating trade transactions) and as a medium of exchange (for settlement of cross-border financial trade and financial transactions) will decline. This could affect the use of the dollar in international financial markets, which by itself will not necessarily have a substantial impact on the U.S. economy. However, these developments, in tandem with measures taken by China to develop its own payment system, could diminish the primacy of U.S. financial institutions. This would affect the ability of the United States to continue wielding the financial clout that it currently has as a result of the dollar's dominance in international finance.

It has also been argued by some that the RMB is on a trajectory to displace the dollar as the dominant global reserve currency.¹²¹ However, China is missing one crucial ingredient: the world's trust. To achieve currency dominance, China needs more than economic and military might; it requires a broader and more credible set of public and political institutions.¹²² Indeed, the importance of such institutions was apparent in the aftermath of the global financial crisis. Even though America's financial markets nearly collapsed, its public debt levels rose sharply, and the Federal Reserve was forced to undertake massive monetary expansion to support the economy, the dollar strengthened relative to most other currencies.

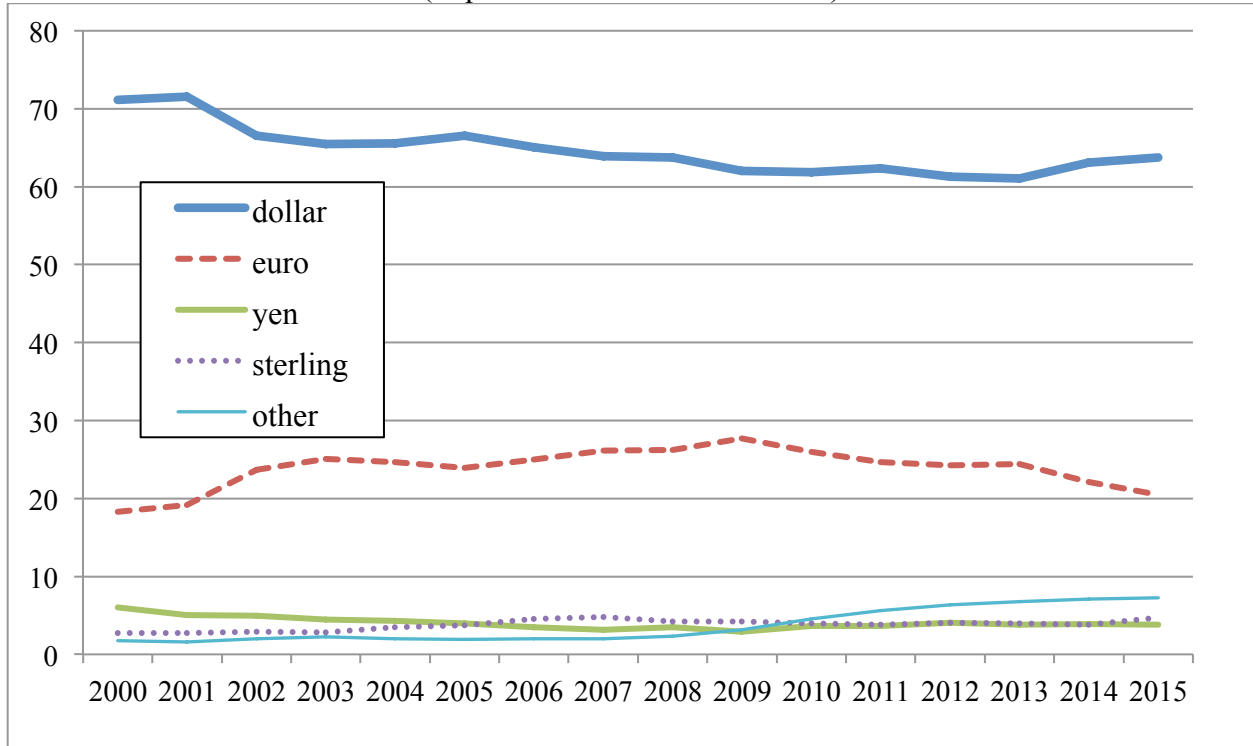
This strengthening occurred because global investors seeking a safe haven still automatically turn to U.S. Treasury securities in times of global financial turmoil. Foreign investors now hold nearly \$6.5 trillion of these low-yielding securities, not to mention large quantities of other dollar assets. And the dollar's share in global foreign-exchange reserves has held steady since the crisis. Indeed, recent data from the IMF suggest that the dollar's share of global foreign exchange reserves has increased slightly, to about 64 percent, in the last two years (Figure 9-3).

¹²⁰ See Prasad and Ye (2012).

¹²¹ See Chen, Peng, and Shu (2009), Subramanian (2011), and references therein.

¹²² For a detailed version of this argument, see Prasad (2014).

Figure 9-3. Currency Composition of Global Foreign Exchange Reserves
(in percent of allocated reserves)



Source: IMF

This outcome can be explained partly by the fact that the United States boasts the world’s deepest and most liquid financial markets. But the most important factor supporting America’s currency dominance is the institutionalized system of checks and balances that operates between the executive, legislative, and judicial branches of its government. Trust in U.S. public institutions is rooted in the open and transparent democratic process that underpins them. The U.S. legal system—independently of the executive and legislative branches of government—further supports the dollar’s global role.¹²³

This institutional framework contrasts sharply with China’s single-party system, in which the level of government accountability is much lower. The reality is that, despite China’s economic heft and low central-government public debt, foreign investors are unlikely to trust China with large sums of money. Capital inflows—which will undoubtedly increase in the coming years—are driven largely by investors’ interest in diversification and high yields, rather than the country’s image as a refuge from troubled financial markets elsewhere, especially given that China’s financial markets are relatively underdeveloped and beset by considerable risks.

Depending on how soon China opens up its capital account and develops its financial markets, the RMB could become a significant reserve currency in the near future. But it will not contest the dollar’s supremacy unless China’s leaders align the country’s political and legal institutions with its economic reforms. It appears unlikely that the Chinese government is willing to

¹²³ See Prasad (2014).

undertake the broad reforms needed to underpin the RMB's status as a safe haven currency, rather than just a reserve currency. A more likely scenario is that, conditional on continued reforms, the RMB's share of global foreign exchange reserves could rise to a level of about 10 percent over the next decade, with most of this increase coming from corresponding declines in the shares of existing reserve currencies such as the euro, the Japanese yen, and the pound sterling. The RMB may slightly erode but is unlikely to seriously challenge the dollar's dominance as the main global reserve currency.

9.5. Summary

China's rapidly growing size and dynamism are enormous advantages that will help promote the international use of its currency, especially within Asia. However, its low level of financial market development is a major constraint on the pace at which the RMB attains reserve currency status. Moreover, in the absence of an open capital account and free convertibility of the currency, it is unlikely that the RMB will become a prominent reserve currency, let alone challenge the dollar's status as the leading one.

China is also likely to continue deploying its resources through other channels that enable it to pursue its economic objectives and simultaneously promote its geopolitical interests. China has set up the Asian Infrastructure Investment Bank, created a \$40 billion Silk Road Fund aimed at promoting outward investment and trade, and has been a key contributor to two joint initiatives with other BRICS economies—the New Development Bank and the Contingent Reserve Arrangement, a reserve pooling fund. Such alternatives will allow China to diversify its foreign investment allocations beyond traditional investments, yielding better economic returns and also an intangible but substantial payoff in terms of increased influence in Asia and beyond. These channels will also help promote the international use of the RMB.

The RMB's rising prominence as a reserve currency could in principle add to the stability of regional and international financial systems. This in turn requires that China's macroeconomic policies and financial market development and regulation be conducive to China's own macroeconomic and financial stability. This favorable outcome will also depend on whether China's domestic financial markets and institutional development allow the RMB to become a credible safe haven currency. The RMB's inclusion in the SDR basket could be seen as a way for the IMF—and the international community that it represents—to exercise leverage over China in internalizing the global repercussions of its domestic policies.

10. Conclusion

Given its size and economic clout, China is adopting a unique approach to the RMB's role in the global monetary system. As with virtually all other major reforms, China is striking out on its own path to a more open capital account. This move is likely to involve removing explicit controls even while attempting to exercise "soft" control over inflows and outflows through administrative and other measures. On its present trajectory, China will have a nearly open capital account in the next two to three years, allowing the RMB to play an increasingly significant role in global trade and finance.

The selective and calibrated approach to capital account liberalization has been effective at promoting the RMB's international presence without risking the potential deleterious effects to China of complete capital account liberalization. Indeed, the RMB is beginning to play a significant role in international trade transactions. It is making inroads into the global financial system and starting to appear in the reserve portfolios of a number of central banks around the world. It has also become a constituent of the basket of currencies that comprise the IMF's Special Drawing Rights. These shifts, some of which are more symbolic than substantive at present, will develop critical mass over time and have the potential to start transforming the global monetary system. However, the full potential of the RMB's international use cannot be realized without more active onshore development. It will be difficult, for instance, to fully develop China's foreign exchange and derivatives markets in the absence of a more open capital account.

The RMB's prospects as a global currency will ultimately be shaped by broader domestic policies, especially those related to financial market development, exchange rate flexibility, and capital account liberalization. As Chinese financial markets become more fully developed and private investors increase the international diversification of their portfolios, these shifts in China's outward investment patterns are likely to become more pronounced. Thus, the various policy reforms that are needed to support the international role of the RMB could also create significant changes in China's economy and the patterns of its capital inflows and outflows.

The RMB is already well on its way to becoming a widely used currency in international trade and finance. So long as China continues to make progress on financial sector and other market-oriented reforms, it is likely that the RMB will become an important reserve currency within the next decade, perhaps eroding but not displacing the dollar's dominance.

Appendix A: Capital Account Categories in the AREAER

This section lists the categories used in the IMF's AREAER, broken down by inflows (15 categories) and outflows (16 categories).

Inflows

1. Money Market (Bonds with Maturity of 1 year or less)
 - 1.1. Purchase Locally By Non-Residents
 - 1.2. Sale or Issue Abroad By Residents
2. Bonds (Bonds with maturity of greater than 1 year)
 - 2.1. Purchase Locally By Non-Residents
 - 2.2. Sale or Issue Abroad By Residents
3. Equities
 - 3.1. Purchase Locally By Non-Residents
 - 3.2. Sale or Issue Abroad By Residents
4. Collective Investments
 - 4.1. Purchase Locally By Non-Residents
 - 4.2. Sale or Issue Abroad By Residents
5. Derivatives Categories
 - 5.1. Purchase Locally By Non-Residents
 - 5.2. Sale or Issue Abroad By Residents
6. Guarantees, Sureties & Financial Backup Facilities
7. Financial Credits
8. Commercial Credits*
9. Real Estate Categories
 - 9.1. Purchase Locally By Non-Residents
10. Direct Investment

Outflows

1. Money Market (Bonds with Maturity of 1 year or less)
 - 1.1. Purchase Abroad By Residents
 - 1.2. Sale or Issue Locally By Non-Residents
2. Bonds (Bonds with Maturity of greater than 1 year)
 - 2.1. Purchase Abroad By Residents
 - 2.2. Sale or Issue Locally By Non-Residents
3. Equities
 - 3.1. Purchase Abroad By Residents
 - 3.2. Sale or Issue Locally By Non-Residents
4. Collective Investments
 - 4.1. Purchase Abroad By Residents
 - 4.2. Sale or Issue Locally By Non-Residents
5. Derivatives Categories
 - 5.1. Purchase Abroad By Residents

- 5.2. Sale or Issue Locally By Non-Residents
- 6. Guarantees, Sureties & Financial Backup Facilities
- 7. Financial Credits
- 8. Commercial Credits*
- 9. Real Estate Categories
 - 9.1. Purchase Abroad By Residents
 - 9.2. Sale or Issue Locally By Non-Residents
- 10. Direct Investment

Notes: The categories marked with an asterisk are the only ones for which the IMF has determined that China does not impose any restrictions according to AREAER 2014. The list above excludes one additional item listed under a separate category (Other) and described as liquidation of direct investment. More detailed discussion on the categories can be found in Fernández, A, M. W. Klein, A. Rebucci, M. Schindler, and M. Uribe (2015) “Capital Controls Measures: A New Dataset,” NBER Working Paper No. 20970.

Appendix B: Selected Developments Pertaining to Capital Account Policies and RMB Internationalization, 2004–2015

This appendix extends the documentation of changes to capital controls in Prasad and Wei (2007) and Prasad and Ye (2012) to September 2015, and also documents the developments related to the greater international use of the RMB and other relevant financial market developments. This is a selective list of key changes and is not intended to be comprehensive. A variety of official and unofficial sources were used in compiling this appendix. “*AREAER*” refers to the IMF’s *Annual Reports on Exchange Arrangements and Exchange Restrictions*; “HKMA” is the Hong Kong Monetary Authority; “PBC” stands for the People’s Bank of China; “CSRC” stands for China Securities Regulatory Commission; and “SAFE” stands for the State Administration of Foreign Exchange. All items from *AREAER* are quotations from the original source.

Changes during 2004

January 1. Under the Closer Economic Partnership Arrangement, (1) the asset requirement for Hong Kong Special Administrative Region (SAR)–incorporated banks to open branches in mainland China was reduced to \$6 billion from \$20 billion; (2) the requirement that a representative office be set up in mainland China before a Hong Kong SAR bank established a joint venture bank or joint venture finance company in mainland China was lifted; and (3) the minimum number of years of business operations on the mainland required before mainland China branches of Hong Kong banks can apply for RMB business was reduced to two years from three years. (HKMA)

January 18. Mainland residents are allowed to use RMB-denominated bank cards for tourism-related payments in the Hong Kong SAR. (*AREAER* 2004, 229, “Arrangement for payments and receipts” change)

February 24. Personal RMB businesses are launched. (HKMA)

February 25. Participating banks in the Hong Kong SAR can establish RMB-denominated accounts, accept RMB deposits, provide RMB–Hong Kong dollar exchange service, and effect RMB remittances for residents and specified commercial customers in Hong Kong. (*AREAER* 2004, 229, “Arrangement for payments and receipts” change)

February 25. The number of primary dealers for open market operations is raised by the PBC after some securities companies, insurance companies, and rural credit cooperatives unions were approved as primary dealers. (PBC)

April 1. The amount for which documentary evidence is required in order to surrender foreign exchange is raised to the equivalent of \$50,000 from \$20,000. (*AREAER* 2004, 229, “Proceeds from invisible transactions and current transfers” change)

May 1. The amount of previous current account foreign exchange income that qualifying enterprises are allowed to retain is increased to the equivalent of 30 percent or 50 percent from 20 percent. (AREAER 2004, 229, “Exports and export proceeds” change)

May 1. The definition of qualifying enterprises is adjusted to include enterprises with specifically allowed foreign exchange business. Previously, the list included enterprises with specific foreign exchange volume or capital amounts. (AREAER 2004, 229, “Exports and export proceeds” change)

June 27. Foreign-funded domestic banks are not permitted to convert proceeds from debt contracted abroad into RMB and are not allowed to purchase foreign exchange for servicing such debts. (PBC)

June 27. Capital remitted as inward foreign direct investment can be converted into RMB only on the basis of a written payment order by the foreign-invested enterprise. (PBC)

August 12. The PBC puts forth clearing and reflow mechanisms for banking in RMB in the Macau SAR. (PBC)

September 8. Mainland China residents are allowed to use RMB-denominated bank cards for tourism-related payments in the Macau SAR. (AREAER 2005, 235, “Arrangement for payments and receipts” change)

November 1. The PBC allows qualified securities firms to issue short-term financing bills to qualified institutional investors in the interbank market. (PBC)

November 3. Participating banks in the Macao SAR are allowed to open RMB-denominated accounts; accept RMB deposits; provide exchange services between the RMB, the Hong Kong dollar, and the Macao pataca; and effect RMB remittances for residents and designated commercial customers in the Macao SAR. (AREAER 2005, 235, “Arrangement for payments and receipts” change)

November 17. The China Development Bank is approved for the issuance of bonds with floating interest rates around the seven-day repo benchmark rate on the interbank market. (PBC)

December 1. Foreign heirs, including those from Hong Kong and Macau, are permitted to take inheritances out of the country. Emigrants are allowed to take legally obtained personal assets up to the equivalent of \$200,000; for larger amounts, staggered transfers are required to be made over a minimum period of two years. (PBC)

December 28. For the first time, the PBC issues forward central bank bills. (PBC)

Changes during 2005

January 1. The limit on the amount of RMB that a domestic or foreign resident can bring in and out of China per time is increased to RMB 20,000 from RMB 6,000. (PBC)

January 1. Persons paying for their own studies abroad are allowed to purchase foreign exchange up to \$20,000 in addition to tuition and fees. The amount had been \$20,000, including tuition and fees. (AREAER 2006, 300, “Payments for invisible transactions and current transfers” change)

January 10. Residents of mainland China may use certain RMB-denominated bank cards for purchases in Thailand and for withdrawing cash and making purchases in Korea and Singapore. (AREAER 2006, 300, “Arrangements for payments and receipts” change)

January 15. The reserve requirements on accounts denominated in domestic and foreign currency are unified at 3 percent. (AREAER 2006, 300, “Provisions specific to commercial banks and other credit institutions” change)

February 18. The PBC and other government ministries announce that international development organizations that are eligible can issue RMB-denominated bonds. (PBC)

April 6. A pilot program intended to allow commercial banks to set up fund management firms is announced. (PBC)

April 30. The PBC approves the Pan-Asian Index Fund’s access to the interbank bond market in China, making it the first institutional investor outside China to do so. (PBC)

May 18. The interbank foreign exchange market formally offers foreign currency trading. The China Foreign Exchange Trading System (CFETS) offers trading of eight currency pairs. (PBC)

June 15. The PBC allows forward bond transactions on the interbank bond market. (PBC)

June 17. Notice that would allow insurance companies to invest in overseas stock markets is issued. (PBC)

August 2. The number of banks allowed to conduct forward transactions and interbank forward transactions is expanded, and restrictions on maturity are lifted. (AREAER 2006, 299, “Exchange arrangement” change)

August 2. Domestic institutions that are allowed to conduct current account transactions can retain foreign exchange equivalent to 50 percent (previously 30 percent) or 80 percent (previously 50 percent) of their foreign exchange earnings from current transactions in the previous year; domestic institutions or enterprises that had no current foreign exchange income in the previous year could retain up to the equivalent of \$200,000 (previously \$100,000). (AREAER 2006, 300, “Exports and export proceeds” change)

August 2. The PBC starts RMB swaps on the foreign exchange market. (PBC)

August 3. Limits on foreign exchange purchases for private travel are increased: (1) If travel is for six months or less, the limit is increased to the equivalent of \$5,000 from \$3,000; (2) if travel is for a period exceeding six months, the limit is increased to \$8,000 from \$5,000. (AREAER 2006, 300, “Payments for invisible transactions and current transfers” change)

August 9. The PBC starts a credit asset and mortgage loan securitization pilot program, for which the China Construction Bank and the China Development Bank are chosen as pilot institutions. (PBC)

August 15. Interbank foreign exchange forward trading products are introduced by the CFETS. The Industrial and Commercial Bank of China and the China Construction Bank complete two forward deals of the U.S. dollar against the RMB on the same day. (PBC)

August 16. The SAFE issues a notice that allows annual balance control to replace the case-by-case approval used when domestic banks designated for foreign exchange make guarantees for Chinese companies engaged in investment overseas. This system now applies to all banks designated as qualified for domestic foreign exchange, and all qualified domestic institutions' foreign investment enterprises can now accept domestic guarantees. (SAFE)

August 30. The State Council approves a policy that allows commercial banks to invest in asset-backed securities. (PBC)

September 22. The SAFE issues notice to extend the coverage of foreign exchange trading positions. (SAFE)

October 9. The Asian Development Bank and the International Finance Corporation are approved for the issuance of RMB-denominated bonds valued at RMB 1 billion and RMB 1.13 billion, respectively, on the interbank bond market, marking the first time that foreign institutional investors participate in the Chinese bond market. (PBC)

November 1. The PBC expands its position-squaring and clearing services to Hong Kong banks conducting RMB businesses in order to meet RMB business development needs. Furthermore, the PBC also expands RMB business for Hong Kong residents and raises cash exchange limits. (PBC)

December 5. RMB-denominated cards may be used in France, Germany, Indonesia, Luxembourg, the Philippines, Spain, the United States, and Vietnam. (*AREAER* 2006, 300, "Arrangements for payments and receipts" change)

December 8. The PBC approves the China Construction Bank and China Development Bank's pilot issuance of asset-backed securities on the interbank market. (PBC)

December 13. The PBC issues a circular to streamline administrative procedures, expand the investor base, and increase market transparency in the corporate bond market. (PBC)

December 15. RMB-denominated cards may be used in Belgium and Japan. (*AREAER* 2006, 300, "Arrangements for payments and receipts" change)

December 18. The number of banks permitted to be market makers is increased from 13 to 21. (*AREAER* 2006, 272, "Exchange arrangement" change)

Changes during 2006

January 4. Over-the-counter transactions and market makers are offered on the interbank foreign exchange market. (PBC)

January 24. The PBC announces pilot RMB interest rate swaps on the interbank market. (PBC)

March 10. The CFETS and the Chicago Mercantile Exchange (CME) sign an agreement that provides China's financial sector with access to the electronic trading of CME's interest rate and foreign exchange products. (PBC)

April 13. Domestic banks' overseas foreign exchange fund-management services for customers is expanded; qualified banks are allowed to combine RMB funds of domestic institutions and individuals and purchase foreign exchange within limits to invest in fixed-income products abroad; qualified fund-management firms and other securities firms are allowed to combine (within limits) foreign exchange funds of domestic institutions and individuals for overseas portfolio investments, including for stocks; insurance institutions' securities investment business abroad is expanded; qualified insurance companies are allowed to purchase foreign currency to invest in fixed-income products and currency market instruments abroad, with the foreign exchange purchase amount subject to a certain proportion of the insurance institution's total assets. (PBC)

April 15. On approval, qualified fund management firms and other securities management companies now may, within a certain limit, combine foreign exchange funds owned by domestic institutions and individuals and use the funds overseas for portfolio investments, including for stocks. (AREAER 2007, 273, 1, qualified fund management firms and other securities management companies change)

May 1. Residents are now allowed to purchase foreign exchange up to \$20,000 a year for current account transactions. (AREAER 2007, 272, "Payment for invisible transactions and current transfers" change)

July 1. The limit on the amount of foreign exchange used in Chinese enterprises' direct investments abroad is abolished. (PBC)

July 6. The PBC issues a circular that allows brokerage business on the interbank bond and lending markets. (PBC)

September 1. Nonresidents may purchase domestic real estate based on actual needs and for their own use. (PBC)

September 1. The Interim Implementing Regulations on QFII Securities Investments in China is abolished, and the administration of QFII investments in China starts. (AREAER 2007, 273, "Provisions specific to institutions investors" change)

October 20. Any foreign exchange transaction that is eligible for spot settlement under the regulations becomes eligible for forward settlement. (AREAER 2007, 272, “Exchange arrangement” change)

December 11. China provides full national treatment for foreign banks. Under its World Trade Organization agreement, foreign banks, after being incorporated locally, are permitted to engage in the same range of financial services as Chinese banks, including taking retail RMB deposits, and they are regulated and supervised in the same way as domestic banks. Foreign bank branches that have the China Banking and Regulatory Commission’s approval to conduct RMB business may accept fixed-term deposits from Chinese citizens living in China in the amount of no less than 1 million RMB per transaction. (AREAER 2007, 272, “Provision specific to commercial banks and other credit institutions” change)

December 29. The CFETS founds its own clearinghouse in order to better control clearing risks and improve market liquidity. (PBC)

Changes during 2007

January 4. The Shanghai Interbank Offered Rate (SHIBOR) is officially launched. (PBC)

January 14. The PBC allows domestic financial institutions to issue RMB financial bonds in Hong Kong, subject to approval. (PBC)

January 15. The number of market-maker banks is increased from 21 to 22. (AREAER 2007, 273, “Exchange arrangement” change)

February 1. The limit on foreign exchange purchases by residents for current transactions is increased to \$50,000 a year from \$20,000. Resident individuals’ foreign exchange purchases up to this limit are processed with personal identification and, after bank declarations, foreign exchange purchases in excess of this limit may be processed after bank verification of actual-need documents stipulated by the SAFE. (AREAER 2008, 321, “Payment for invisible transactions and current transfers” change)

February 1. The limit on foreign exchange purchases by residents for remittances abroad for personal reasons is increased to \$50,000 a year. Resident individuals’ foreign exchange receipts up to \$50,000 may be processed with a bank on proof of identity. (SAFE)

March 2. The SAFE reduces the 2007 short-term external debt quotas of Chinese-funded banks to 30 percent and those of nonbank financial institutions and foreign-funded banks to 60 percent of their 2006 equivalents. In addition, Chinese-funded banks are required to reduce their outstanding short-term external debts to 30 percent or less and nonbank financial institutions and foreign-funded banks to 60 percent or less of their 2006 quotas by March 31, 2008. (SAFE)

March 20. A notice that allows corporate annuity funds access to the interbank bond market is issued. (SAFE)

April 9. The CFETS puts forth a new trading platform that synthesizes RMB spot, forward, and options transactions against other currencies plus pair transactions among foreign currencies. (PBC)

June 7. The Shanghai Gold Exchange obtains the PBC's approval to admit operational units of foreign banks as its members. (PBC)

June 26. RMB bond issuance starts in Hong Kong. (PBC)

July 5. The Qualified Domestic Institutional Investor (QDII) program starts. (PBC)

August 12. Domestic institutions are now allowed to retain foreign exchange receipts from current account transactions in their foreign exchange current accounts according to their operational needs. The previous limits on the retention of foreign exchange receipts are eliminated. (*AREAER* 2008, 321, "Exports and export proceeds" change)

August 17. RMB swaps against the U.S. dollar, the euro, the yen, the Hong Kong dollar, and the pound sterling are introduced in the interbank foreign exchange market. (PBC)

August 20. The SAFE initiates a pilot program that allows domestic residents to invest in securities overseas under controllable risks. (PBC)

August 30. The SAFE fully decentralizes the task of verification of sources of foreign exchange capital for outward investment. SAFE branches are authorized to verify sources of foreign exchange capital for outward investment projects of \$10 million or more. (SAFE)

September 3. The National Association of Financial Market Institutional Investors—which includes members of the interbank market, foreign exchange market, and gold market—is formed. (PBC)

September 29. The PBC introduces forward rate agreements. (PBC)

December 9. The overall QFII quota was raised to \$30 billion from \$10 billion. (SAFE)

Changes during 2008

January 18. The PBC fully authorizes interest rate swaps. (PBC)

March 7. Regulated financial institutions that meet risk-management requirements are allowed to trade in gold futures on the domestic market. (SAFE)

July 14. The registration management system for the provision of trade credit between residents and nonresidents is implemented for advance receipts of export payments. (SAFE)

July 25. The China Domestic Foreign Currency Payment System is started. (PBC)

August 5. The foreign exchange income of domestic institutions and individuals is now allowed to be deposited abroad, under the terms and conditions specified by the Foreign Exchange Administration Department; however, these regulations have not yet been issued. (AREAER 2009, 539, “Exports and export proceeds” change)

August 20. The SAFE approves a pilot program to allow for individual domestic and foreign currency exchange business in Beijing and Shanghai, subject to approval. (PBC)

August 29. The amount of capital remitted as inward foreign direct investment that may be converted to RMB only with a written payment order by the company making the foreign investment is reduced to \$50,000 from \$200,000. (SAFE)

August. The ceiling on the initial investment amount for each new institutional investor is raised to \$1 billion from \$800 million. (Lardy and Douglass 2011, 11)

October 1. The registration management system for the provision of trade credit between residents and nonresidents is implemented for deferred payments of imports. (SAFE)

November 15. The registration management system for the provision of trade credit between residents and nonresidents is implemented for advance receipts of import payments. (SAFE)

December 1. The registration management system for the provision of trade credit between residents and nonresidents is implemented for deferred payments of exports. (SAFE)

December 9. CBRC allows commercial banks to provide loans to firms for cross-border mergers-and-acquisitions purposes (Lardy and Douglass, 2011).

Changes during 2009

January 7. The PBC eliminates restrictions that previously stipulated that a bond must exceed RMB 500 million in value to be traded on the interbank bond market. (PBC)

March 12. The Ministry of Commerce announces new rules regarding project approval that seek to shorten the time to gain approval, raise value thresholds, and boost discretionary power of the ministry’s local branches (Lardy and Douglass 2011).

March 16. The PBC and HKMA start a cross-border multicurrency payment arrangement. (HKMA)

March 17. The SAFE announces the “Notice on the Decision on Short-Term External Debt Quotas for Financial Institutions in 2009,” which raises the short-term debt quotas of financial institutions. (PBC)

March 18. The PBC now allows fund management companies to open bond accounts on the interbank bond market under the category of a specific asset management portfolio. (PBC)

April 8. The State Council announces a pilot program that allows exporters and importers in five cities—Shanghai, Guangzhou, Shenzhen, Zhuhai, and Dongguan—to settle cross-border trade deals in RMB. (PBC)

May 14 and June 24. The PBC approves the Bank of East Asia (Hong Kong)'s and the Hong Kong and Shanghai Banking Corporation (China)'s issuance of RMB 4 billion and RMB 3 billion, respectively, in RMB-denominated bonds in Hong Kong. (PBC)

July 2. RMB cross-border trade settlement starts in pilot cities. (PBC)

August 1. The protocol for review of the source of foreign exchange funds for outward direct investment changes from ex-ante examination to ex-post registration, and the review and approval requirement for outward remittances of funds for outward direct investments is canceled. During the preparatory stage before the formal startup of the foreign project, with SAFE approval, domestic institutions may remit a certain percentage of the total investment abroad. (SAFE)

September 28. The Ministry of Finance of China announces the issuance of the first sovereign RMB-denominated bond in Hong Kong. (HKMA)

September 29. With respect to QDII, the net amount of funds remitted abroad by securities dealers for investment in securities abroad must not exceed approved investment limits. (SAFE)

September 29. The upper limit on individual QFII investments was raised from \$800 million to \$1 billion, and the principal lock-up period for medium- and long-term investments by pension funds, insurance funds, and open-end funds is decreased to 3 months from 6 to 12 months; the principal lock-up period for other institutions was decreased from three years to one year. (CSRC)

November 28. The Interbank Market Clearing House Co., Ltd., is formally established in Shanghai. (PBC)

December 14. The PBC broadens the range of transactions for which it provides RMB position squaring and clearing for banks in Macau. (PBC)

Changes during 2010

March 24. The PBC and the National Bank of the Republic of Belarus sign a bilateral local currency settlement agreement. This represents the first such agreement for general trade transactions that China has signed with a non-neighboring country. (PBC)

June 22. The PBC, along with other ministries, jointly announces the “Notice on Expansion of the Pilot RMB Settlement of Cross-Border Trade Program.” This measure broadens the geographic coverage of the RMB-settlement pilot program. Cross-border settlement business is also expanded beyond trade items to other balance of payment items. Current account

transactions between 20 provinces and cities on the mainland and the rest of the world may now be settled in RMB. Previously, transactions had to be settled in convertible currencies. (PBC)

July 7. Hopewell Highway Infrastructural Ltd. announces the issuance of RMB-denominated bonds in Hong Kong, marking the first corporate dim sum bond issuance. (*Financial Times*)

July 13. The Bank of China (Hong Kong) is authorized to serve as the clearing bank for RMB banknotes in Taiwan. (PBC)

July 19. Financial institutions in the Hong Kong SAR—including banks, securities brokerages, and insurance companies—are now allowed to open RMB accounts. In addition, individuals and corporations can now undertake payments and transfers of RMB between these banks and interbank settlement in RMB. To facilitate the use of the RMB in trade transactions, foreign banks engaged in such settlements were allowed to open RMB correspondent accounts with Chinese banks as of July 2009. (*AREAER* 2011, 631, “Nonresident Accounts” Change)

August 17. Foreign central banks, monetary authorities, Hong Kong SAR and Macau SAR RMB clearing banks, and foreign banks engaged in RMB trade-clearing are allowed to invest in the China interbank bond market. These investments have several limitations, but there is no minimum holding period. (SAFE)

August 19. McDonald’s announces the issuance of RMB bonds worth RMB 200 billion, marking the first issuance of RMB bonds by a multinational corporation. (*Financial Times*)

October 1. Nonresident nonbank institutions accepting payments for exports to China in RMB are now allowed to deposit the proceeds from such transactions in correspondent accounts with Chinese mainland banks. Limited trade financing is also possible through the correspondent accounts. (*AREAER* 2011, 632, “Nonresident accounts” change)

October 1. Pilot projects for the depositing of export proceeds abroad are launched in four areas: Beijing, Guangdong (including Shenzhen), Shandong (including Qingdao), and Jiangsu. Eligible domestic enterprises in pilot project areas may apply to local SAFE branches to deposit export proceeds abroad and, on approval, participate in the pilot projects. In accordance with the relevant regulations, the opening and closing of external accounts and funds receipts and payments must be processed and the relevant information reported to the SAFE. (*AREAER* 2011, 632, “Exports and export proceeds” change)

November 22. The PBC authorizes the CFETS to set up direct Russian ruble trading with the RMB on the interbank foreign exchange market. (PBC)

November 22. Issuances of RMB-denominated sovereign bonds are conducted through the Central Moneymarkets Unit. (HKMA)

November 24. The U.S. multinational Caterpillar announces the issuance of RMB 1 billion worth of RMB-denominated bonds. (*Financial Times*)

December 8. The number of Chinese exporters allowed to participate in RMB settlement is increased from 365 to 67,359. (PBC)

December 15. The Russian Moscow Interbank Currency Exchange starts RMB–ruble trading. (PBC)

December 31. The “Bank of China (Hong Kong) Offshore RMB Bond Index,” the first Hong Kong RMB bond index, is launched. (Bank of China)

Changes during 2011

January 1. The SAFE classifies foreign exchange market makers into three types to increase liquidity in China’s foreign exchange market and boost its development: spot-trading market makers, forwards and swap-trading market makers, and comprehensive market makers. Twenty-six banks have been approved as spot market makers, and 18 have been approved as forward swap market makers. (*AREAER* 2011, 632, “Exchange arrangement” change)

January 6. Resident enterprises in 20 provinces and cities on the mainland are now allowed to use RMB for outward foreign direct investment in countries that accept such settlement. Previously, such payments had to be settled in convertible currencies. Banks in Hong Kong can provide RMB funds to facilitate these transactions. (*AREAER* 2011, 632, “Arrangements for payments and receipts” change, HKMA)

January 13. The Bank of China is approved to set up RMB-denominated deposit accounts in New York City. (PBC)

January 24. The Qualified Limited Foreign Partner (QLFP) pilot program starts in Shanghai. (Government of Shanghai)

February 14. The PBC allows RMB-FOREX options trading on the interbank foreign exchange market. (PBC)

June 23. The PBC signs a new bilateral local currency settlement agreement with the Central Bank of the Russian Federation. (PBC)

August 23. Cross-border trade settlement in RMB is extended to the entire nation. (PBC)

September 14. HSBC announces that it has become the first foreign bank to offer RMB services and products in Taiwan. (HSBC)

Third quarter. RMB-denominated corporate bond issuance exceeds that of euro-denominated sales for the first time. (*Financial Times*, September 29, 2011)

October 12. Foreign investors are permitted to engage in direct investment activities in China using RMB obtained legally abroad. (SAFE)

October 14. The PBC announces rules that permit banks to provide settlement services to overseas entities that have made direct investments denominated in RMB. (PBC)

October 16. The Chinese Gold & Silver Exchange launches the world's first RMB-denominated gold contract in Hong Kong. (CNBC, October 16)

October 17. The Ministry of Commerce issues an announcement that allows foreign direct investment in RMB from outbound investors. (Ministry of Commerce)

November 10. The PBC signs an agreement with the Austrian Central Bank to allow the latter to invest in the interbank bond market in China. (PBC)

November 28. JP Morgan Asset Management is allowed to create a \$1 billion RMB-denominated fund under the Qualified Limited Partners Program, making it the largest foreign manager of an RMB-denominated fund so far. (JP Morgan)

December 16. Offshore RMB are allowed to be used for purchasing equities in mainland China. (*Financial Times*)

December 16. On the basis of the existing system, some QFIIs are further permitted by a pilot project to invest in the domestic securities market using RMB; the first group of pilot institutions comprises Hong Kong subsidiaries of qualified Chinese domestic fund management companies and securities companies. (SAFE)

December 25. China and Japan agree to promote local currency cross-border transactions, direct foreign exchange, bond market development, and other programs. (PBC)

Changes during 2012

March 1. The PBC releases regulations allowing all China-based enterprises with import and export qualifications to settle their goods exports in RMB. (PBC)

March 28. The State Council of China approves Wenzhou, Zhejiang province for a pilot program that allows residents in the city to spend up to \$200 million a year—or as much as \$3 million a person—to set up, acquire, or invest in non-financial companies in foreign markets. (State Council)

April 2. CSRC increased the quotas for QFII to \$80 billion from \$30 billion and for RQFII to RMB 70 billion from the previous limit of RMB 20 billion. (CSRC)

April 16. The floating band of the RMB's trading prices against the U.S. dollar in the interbank foreign exchange market was widened from 0.5 percent to 1 percent—i.e., on each business day, the trading prices of the RMB against the U.S. dollar in the interbank foreign exchange market may fluctuate within a band of ± 1 percent around the central parity released on the same day by the CFETS. The spread between the highest offer price and the lowest bid price of RMB–U.S. dollar spot transactions, as quoted by foreign-exchange-designated banks to their customers, may

not exceed 2 percent of the central parity (previously 1 percent). (*AREAER* 2012, 671, “Exchange rate arrangement” change)

April 19. The British multinational banking firm HSBC issues the first offshore RMB bonds in London. (HSBC)

May 29. Direct trading between the RMB and the Japanese yen is launched. (Reuters)

May 29. The Hong Kong Securities and Futures Commission (SFC) approved the introduction of the first RMB currency futures in Hong Kong. (SFC)

June 15. HKMA introduces the 1-week Liquidity Facility to banks in Hong Kong. (HKMA)

June 27. The State Council of China approves policies supporting the financial testing zone in Qianhai, Shenzhen for the offshore CNY market, with liberalization of capital account convertibility. (State Council)

June 29. CSRC and the Hong Kong Securities and Futures Commission (SFC) authorize listing in Hong Kong of the first RMB RQFII A-share ETFs, RMB-denominated products that will track mainland indexes and trade in Hong Kong. (SFC)

July 27. CSRC issues new provisions relaxing entry requirements for the QFII, under which international fund managers with as little as \$500 million under management and two years’ operating history are eligible to apply for QFII quotas. (CSRC)

August 1. HKMA allows Hong Kong banks to provide RMB service to nonresidents. (HKMA)

December 11. Bank of China (Taipei branch) is named the clearing bank for RMB in Taiwan. (Bank of China)

December 14. The SAFE releases a set of guidelines that raise the ceiling of the investment quota of institutional investors such as sovereign wealth funds, central banks, and monetary authorities above USD 1 billion or equivalent. (SAFE)

December 17. On liquidation of direct investment, a foreign investor may directly execute the purchase of foreign currency and repatriation of funds at the relevant bank, after registration with the SAFE. (The related approval procedures for the purchase of foreign currency and repatriation of funds are eliminated.) (SAFE)

December 17. Nonresidents may repatriate proceeds from real estate sales directly at the relevant bank, after registration with the SAFE. (The foreign currency approval procedures are eliminated.) (SAFE)

December 27. The PBC approves cross-border RMB loans in Shenzhen, granting Chinese companies access to borrow RMB from Hong Kong-based banks. (PBC)

Changes during 2013

January 25. The PBC signs an agreement with Taiwan permitting direct settlement of RMB payments between China and Taiwan. The agreement also extends the RQFII program to Taiwan with investment quota of up to RMB 100 billion (\$19.7 billion). (PBC)

February 7. Proceeds from the issuance of shares by an overseas-listed enterprise controlled by foreign shareholders may, after registration, be retained overseas. Foreign exchange funds earned by the domestic equity holding unit of overseas-listed companies controlled by Chinese shareholders from sales of shares or assets of the listed company must be repatriated within two years of receipt. Previously, such proceeds were required to be repatriated within six months of receipt, which could be extended to two years with SAFE approval. (SAFE)

February 8. The Industrial and Commercial Bank of China is named the clearing bank for offshore RMB business in Singapore. (PBC)

March 1. Under the expanded RMB RQFII program, Hong Kong subsidiaries of Chinese banks and insurers as well as financial institutions registered and operating in Hong Kong SAR may invest in domestic securities markets using RMB proceeds raised in Hong Kong SAR. The restriction on asset allocation under the program is also relaxed, permitting RMB-qualified foreign institutional investors to invest in a wider variety of financial instruments. (AREAER 2013, 622, “Exchange arrangement” change)

March 26. The PBC signs a bilateral local currency swap arrangement with Banco Central do Brasil valued at about RMB 190 billion or 60 billion real. (PBC)

June 21. RQFIIs in the Taiwan region are allowed to invest in mainland securities markets. (AREAER 2013, 622, “Exchange arrangement” change)

June 22. The PBC and the Bank of England reach a three-year currency swap with the value exceeding RMB 200 billion (\$32.6 billion). (PBC)

June 24. The Hong Kong Treasury Markets Association (TMA) launches the new CNH Hong Kong Interbank Offered Rate fixing, with 16 banks elected for contribution of the interest rate quotes. (HKMA)

July 12. The overall investment limit for QFIIs is increased from \$80 billion to \$150 billion. (AREAER 2013, 622, “Capital transactions” change)

September 29. China officially launches the China (Shanghai) Pilot Free Trade Zone. (State Council)

October 10. The PBC and the European Central Bank agree to establish a bilateral currency swap line with maturity of three years and with a maximum size of RMB 350 billion or 45 billion euros. (PBC)

October 15. RQFII in the United Kingdom are allowed to invest in mainland securities markets. (AREAER 2013, 622, “Exchange arrangement” change)

October 22. RQFII in Singapore are allowed to invest in mainland securities markets. (AREAER 2013, 622, “Exchange arrangement” change)

November 6. Canada’s western province of British Columbia issues one-year offshore RMB-denominated bonds and raises RMB 2.5 billion, the first time a foreign government has issued offshore RMB bonds. (Caixin Media)

Changes during 2014

January 10. The requirement to verify underlying documents is canceled for profit repatriation less than \$50,000. For larger amounts, banks must verify board of directors’ resolutions on the distribution of profits (or partners’ resolution on the distribution of profits) and the originals of the tax filing forms. (AREAER 2014, 726, “Capital transactions” change)

January 10. Restrictions on the purpose and maturities of offshore lending are relaxed. (AREAER 2014, 726, “Capital transactions” change)

February 19. The book value of consolidated foreign and domestic real estate-type investments is increased from 20 percent to 30 percent of an insurance company’s total assets at the end of the previous quarter; total book value does not include real estate purchased with insurance companies’ own funds for their own use, whose book value balance may not exceed 50 percent of their total net assets at the end of the previous quarter. The book value of a single investment in fixed-income assets, equity, or real estate may not exceed 5 percent of the insurance company’s total assets at the end of the previous quarter. A single investment in the same legal entity may not exceed in total 20 percent of an insurance company’s total assets at the end of the previous quarter. (AREAER 2013,623, “Capital transactions” change)

February 19. The limit on the investments of an insurance company in foreign and domestic real estate is increased from 20 percent to 30 percent of the insurance company’s total assets at the end of the previous quarter. The total balance does not include real estate purchased with insurance companies’ propriety funds for their own use, the balance of which may not exceed 50 percent of their total net assets at the end of the previous quarter. A single investment in real estate is set at 5 percent of the insurance company’s total assets at the end of the previous quarter. (AREAER 2014, 726, “Capital transactions” change)

February 21. The PBC releases notices allowing cross-border RMB cash pooling, sweeping, borrowing, and centralized settlement and netting within the zone. (PBC)

March 13. The China Development Bank issues RMB 1 billion of 3-year RMB bonds in Hong Kong at an interest rate of 3.35 percent and 1.87x subscriptions ratios. (China Development Bank)

March 17. The floating band of the RMB's trading prices against the U.S. dollar in the interbank foreign exchange market is widened from 1 percent to 2 percent. That is, on each business day, the trading prices of the RMB against the U.S. dollar in the market may fluctuate within a band of ± 2 percent around the central parity released that day by the CFETS. The range of the spread between the highest offer price and the lowest bid price for RMB–U.S. dollar spot transactions at foreign-exchange-designated banks and their customers is widened from 2 percent to 3 percent of the central parity. (AREAER 2013, 623, “Exchange arrangement” change)

March 19. The interbank foreign exchange market launches direct trading of the RMB against the New Zealand dollar. (AREAER 2013, 623, “Exchange arrangement” change)

March 28. The PBC signs an agreement with Germany's Bundesbank to establish RMB clearing service in Frankfurt. (PBC)

March 31. The Bank of England signs an agreement with the PBC to enable the clearing and settlement of RMB transactions in London. (PBC)

May 12. Limitations on cross-border guarantees by residents and nonresidents (both inward and outward) are canceled. (AREAER 2014, 726, “Capital transactions” change)

June 11. RMB settlement of export transactions is simplified. Banks are allowed to settle exports in RMB based on the three principles of “know your customer,” “know your business,” and “conduct due diligence,” relying on the income and payment instructions submitted by the domestic enterprises. (AREAER 2014, 726, “Capital transactions” change)

June 11. Individuals may use RMB to settle international trade in goods and services. (AREAER 2014, 725, “Imports and import payments” change)

June 11. RMB settlement of import transactions is simplified. Banks are allowed to settle imports in RMB based on the three principles of “know your customer,” “know your business,” and “conduct due diligence,” relying on the income and payment instructions submitted by the domestic enterprises. (AREAER 2014, 725, “Exchange rate arrangement” change)

June 18. The PBC appoints the China Construction Bank to clear RMB-related transactions in London. (PBC)

June 18. The PBC announces that RMB can now be exchanged directly for British pounds in Shanghai's foreign-exchange market. (PBC)

June 18. The PBC appoints the Bank of China (Frankfurt) as the first institution conducting RMB clearing business in Euro area. (PBC)

June 28. The PBC sets up RMB clearing centers in Paris and Luxembourg. (PBC)

July 3. The PBC and the Bank of Korea sign an MOU on Establishing RMB Clearing Arrangements in Seoul, with the Bank of Communications named as the clearing bank in South Korea. (PBC)

July 3. The PBC and the Central Bank of Argentina renew the three-year deal on their bilateral local currency swap. The size of the swap facility is RMB 70 billion (90 billion Argentina pesos). (PBC)

July 9. China grants a RQFII quota of RMB 80 billion (\$12.9 billion) to Germany and South Korea, respectively. (CSRC)

July 14. The foreign exchange administration of round-trip investment is reformed and the registration of financing and changes in financing is canceled. (AREAER 2014, 726, “Capital transactions” change)

July 14. The middle rate of the RMB against the pound sterling is determined based on the average of the day’s market makers’ quotes. Previously, the rate was determined through the cross-rates by the CFETS based on the day’s middle rate for the RMB against the U.S. dollar and the exchange rates for the U.S. dollar against the pound sterling. (AREAER 2013, 623, “Exchange arrangement” change)

July 14. The PBC allows banks to set exchange rate quotes for their clients based on supply and demand in the market (PBC No. 2014/188). Previously, the difference between the maximum cash selling prices offered and the minimum cash buying prices of the RMB against the U.S. dollar could not exceed 4 percent of the daily middle rate. The difference between the highest spot exchange (cash) selling price and the lowest spot exchange (cash) buying price had to contain the day’s middle rate. Within the official spread range, banks can independently decide the buying and selling prices for spot and cash transactions. (AREAER 2013, 623, “Exchange arrangement” change)

July 21. The PBC and the Swiss National Bank sign a three-year currency swap agreement for RMB 150 billion (CHF 21 billion). (PBC)

September 11. The World Bank issues \$1.25 billion worth of RMB bonds. (World Bank)

September 26. Foreign nonfinancial enterprises are allowed to use RMB raised through the issuance of RMB-denominated debt instruments in the domestic market in China and abroad. (AREAER 2014, 726, “Capital transactions” change)

September 26. RMB funds raised abroad are allowed to be used for debt servicing. (AREAER 2014, 726, “Capital transactions” change)

September 29. The PBC allows the CFETS to launch direct trading of RMB for euro and vice versa on the interbank foreign exchange market. (PBC)

October 14. The U.K. government issues a sovereign bond in RMB, becoming the first Western country to do so and issuing the largest ever non-Chinese RMB bond. The RMB 3 billion bond, which is equivalent to approximately £300 million, had a maturity of 3 years. (U.K. government)

October 24. The Asian Infrastructure Investment Bank (AIIB) is officially launched in Beijing. As of April 15, 2015, almost all Asian countries and most major countries outside Asia have joined the AIIB, except the United States, Japan, and Canada. North Korea's and Taiwan's applications for Prospective Founding Member (PFM) were rejected. (AIIB)

October 28. The interbank foreign exchange market launches direct trading of the RMB for the Singapore dollar. The middle rate of the RMB against the Singapore dollar is determined based on the average of the day's market makers' quotes. Previously, the rate was determined through the cross-rates by the China Foreign Exchange Trading System based on the day's middle rate of the RMB against the U.S. dollar and the exchange rates for the U.S. dollar against the Singapore dollar. (AREAER 2014, 725, "Exchange rate arrangement" change)

November 1. Limits and quotas on the total amount and on the share of various financial instruments in the investment portfolio are eliminated for QDIIs' overseas RMB investments (Notice of the People's Bank of China on Matters Concerning the Overseas Securities Investment by RMB Qualified Domestic Institutional Investors. (AREAER 2014, 726, "Capital transactions" change)

November 1. Transnational enterprise groups are allowed to carry out cross-border surplus and deficit funds transfers and allocation business between resident and external nonfinancial member enterprises, based on their own business and management needs. (AREAER 2014, 726, "Capital transactions" change)

November 4. China gives an RMB 30 billion (\$4.9 billion) quota to Qatar under the RQFII program. (CSRC)

November 10. The HKMA announces a provision of RMB intraday liquidity to Authorized Institutions participating in RMB business in Hong Kong. (HKMA)

October 13. The central banks of Russia and China announce an agreement for ruble-RMB currency swaps, with a total value of CNY 150 billion. (PBC)

October 27. Direct trading of RMB for Singapore dollars and vice versa is launched. (Xinhua News Agency)

November 14. China's government issues two notices confirming capital gains tax exemptions for QFIIs, RQFIIs, and the Shanghai-Hong Kong Stock Connect Scheme. (Ministry of Finance)

November 17. The Shanghai-Hong Kong Stock Connect scheme is officially launched, allowing Hong Kong and overseas investors to trade eligible shares listed in Shanghai. However, only mainland institutional investors and individual investors who have RMB 500,000 in their

investment and cash accounts are eligible to trade Hong Kong-listed shares. The northbound aggregate quota is set at RMB 300 billion, while the southbound aggregate is set at RMB 250 billion. (CSRC and SEHK)

November 17. The PBC names the Bank of China to be the clearing bank for RMB transactions in Sydney. (PBC)

November 17. RQFII scheme gives Australian investors a quota to invest up to RMB 50 billion (\$8.2 billion). (CSRC)

November 18. The PBC signs a bilateral local currency swap agreement with the Bank of Canada, with the size of the facility being RMB 200 billion (CAD \$30 billion). (PBC)

December 15. The interbank foreign exchange market launches direct trading of the RMB for the Kazakhstani tenge. The daily RMB–tenge reference rate is determined by averaging the quotes from tenge-quoting banks by the China Foreign Exchange Trading System before the daily interbank foreign exchange market opens. (AREAER 2014, 725, “Exchange rate arrangement” change)

December 17. Approval requirements for outward direct investments except in sensitive countries, regions, and sensitive industries are cancelled and replaced with a filing system. (AREAER 2014, 726, “Capital transactions” change)

Changes during 2015

January 21. The PBC and the Swiss National Bank sign an MOU on the establishment of RMB clearing arrangements in Switzerland. The PBC also extends the RQFII program to Switzerland with a total investment quota of RMB 50 billion. (PBC)

January 28. Foreign RMB clearing banks are allowed to carry out bond repo business in the interbank bond market. (AREAER 2014, 727, “Arrangements for payments and receipts” change)

February 13. The foreign exchange registration of FDI and overseas direct investment is moved from the SAFE to the banks. (AREAER 2014, 727, “Capital Transactions” change)

February 26. The Silk Road Fund, registered on December 29, 2014 in Beijing as a limited liability company, and jointly sponsored by official foreign exchange reserves, China Investment Corporation (CIC), the Export-Import Bank of China, and the China Development Bank in accordance with the Company Law of the People’s Republic of China starts operation. (PBC)

March 30. Previous restrictions on the conversion of foreign exchange capital to RMB by foreign-owned enterprises are removed. (AREAER 2014, 727, “Capital Transactions” change)

May 5. RQFII program is expanded to include Luxembourg, with the initial investment quota of RMB 50 billion being assigned. (PBC)

May 25. The PBC and Central Bank of Chile sign an agreement on a three-year local currency swap facility valued as RMB 22 billion (2.2 trillion Chilean pesos). The two parties also sign an MOU on establishing RMB clearing arrangements in Chile and agree to include Chile in the pilot RQFII program with an investment quota of RMB 50 billion. (PBC)

May 28. RMB clearing banks abroad and nonresident participating banks with quotas to invest in the interbank bond market are allowed to undertake repo business in the interbank bond market to fund offshore RMB business. The limit on financing through repos is tied to the bonds held onshore. (*AREAER* 2014, 727, “Capital Transactions” change)

June 11. The PBC publishes the 2015 Report on RMB Internationalization, the first report on this topic released by a Chinese government agency. The report lays out a set of plans to improve the international use of RMB, including the establishment of China International Payment System (CIPS), Shenzhen–Hong Kong stock connect, and Qualified Domestic Individual Investors (QDII2). (PBC)

June 27. The PBC and the Central Bank of Hungary sign an MOU on the establishment of RMB clearing arrangements in Hungary and the agency agreement for the PBC to manage the MNB’s investments in China’s interbank bond market. (PBC)

July 1. Domestic public placement fund products are allowed to be sold in the Hong Kong region, subject to approval. Hong Kong public placement fund products are allowed to be sold within the region, subject to approval. (*AREAER* 2014, 727, “Capital Transactions” change)

July 11. The SAFE issues a circular to allow foreign-invested enterprises to settle foreign exchange capital on a voluntary basis, giving enterprises the freedom to choose the timing for settlement of foreign exchange capital. (SAFE)

July 14. The PBC further opens up the interbank bond market for investment by foreign central banks, international financial institutions, and sovereign wealth funds with RMB funds by introducing a registration system, eliminating quotas, and expanding the authorized investments to a broad range of interest rate instruments. (PBC)

August 11. The PBC announces a change in the quotation policies of the central parity of RMB against the U.S. dollar, accompanied by the biggest one-day drop in the RMB/USD rate in two decades. According to the new policy, the quotes of central parity that market makers report to the CFETS daily before the market opens should refer to the closing rate of the interbank foreign exchange market on the previous day, in conjunction with supply and demand conditions in the foreign exchange market and exchange rate movement of the major currencies. (PBC)

September 17. The PBC signs an MOU with the Central Bank of Argentina, announcing the launch of the second offshore clearing arrangement in Latin America (after Chile). (PBC)

September 22. For the first time, the PBC allows two foreign commercial banks, HSBC and the Bank of China (Hong Kong), to issue RMB bonds in the interbank market in mainland China. (PBC)

Appendix C: Restrictions on Investment in the FTZs

The 2015 Negative List

The 2015 negative list covers all four free trade zones (FTZs). The list features a number of changes relative to the 2014 Shanghai FTZ negative list, but these changes are to a large extent due to some changes in classification and definitions. The 2015 list includes all the limitations and restrictions on foreign investment from other laws as well, making this version more comprehensive. The text below highlights some of the main elements of the list and also key areas where restrictions have been lifted.¹²⁴

Agriculture, forestry, animal husbandry, and fishing

1. Foreign investors are prohibited from the following businesses: developing, raising, or breeding plants that are rare or unique to China; breeding or producing genetically modified seeds, crops, or animals; collecting genetic resources or crops without permission.
2. Foreign investors are not allowed to be the controlling shareholders of companies developing new crops and seeds.
3. Foreign investors are not allowed to fish in Chinese waters without permission from the government.

Mining

A number of restrictions on mining have been lifted, with only the following rules remaining:

1. Foreign investors are not allowed to explore or develop China's exclusive economic zones or its continental shelf without permission from the government. Foreign investors are allowed to start companies to explore for gas and oil only by forming partnerships with investors in China Mining. Prospecting for rare earths, radioactive materials, tungsten, molybdenum, tin, antimony, and fluorite is prohibited. Prospecting is restricted for lithium, precious metals, and graphite.

Manufacturing

A number of restrictions in the manufacturing industry have been lifted, including those on the processing of rice, corn, edible oils, tea, alcohol, tobacco, and chemicals (now fully allowed). In the area of pharmaceuticals and health care, anesthesia and blood products are now allowed. The manufacturing of motorized vehicles remains sensitive, making up most restrictions in the manufacturing industry. The restriction on construction vehicles, motorcycles, and new energy vehicle batteries have, however, been lifted. Other restrictions are as follows:

¹²⁴ This appendix draws extensively on material from China Briefing, an online resource provided by Dezan Shira & Associates, and is supplemented with information from State Council documents that are available at: http://www.gov.cn/zhengce/content/2015-04/20/content_9627.htm.

1. Aircraft, unmanned aerial vehicles, and helicopters: Requires Chinese controlling interest.
2. Finished cars: can be maximum 50 percent foreign-owned. Car parts manufacturing fully open to foreign investment.
3. Ships, ship engines, and marine engineering equipment: Requires Chinese controlling interest.
4. Rail transport equipment: Limited to a contractual or equity joint venture; for urban rail transport, 70 percent of the equipment used must be made in China.
5. Satellites for civilian use: Requires Chinese controlling interest.
6. Processing and smelting of rare earths, tungsten, molybdenum, tin, antimony: Limited to a contractual or equity joint venture.
7. Processing radioactive material: Prohibited.
8. Chinese herbal medicine: Prohibited.
9. Ivory, tiger bones, and traditional Chinese handicrafts: Prohibited.

Electricity, heat, gas, and water

1. Chinese investors should be controlling shareholders in the construction and operation of nuclear power facilities. Only state-owned companies or companies controlled by state-owned capital are allowed to treat solid radioactive waste.
2. China's investors should be controlling shareholders in providing water, heat, and gas to cities with urban population greater than 500,000.
3. China's investors should control the construction and operation of electricity grids.

Franchising

A number of important sectors have seen their restrictions lifted. These include fertilizers, agricultural film (to cover greenhouses), the sale of petrol through petrol stations, and the sale of books, newspapers, and magazines. Remaining prohibitions include the sale of tobacco, lottery tickets, and the auctioning of cultural relics.

Transportation

Limitations on transportation remain largely in place. There are special requirements for foreign investment in sectors including highways, railways, waterways, air, general aviation, and civil airports. Prohibited areas include air control systems, postal service, or express delivery within China.

Telecommunication and information technology

1. As with the *Catalogue of Restricted Industries*, value-added telecom services (except e-commerce) are restricted to maximum 50 percent foreign shareholding, and basic telecom services are limited to 49 percent.
2. It is prohibited to operate news web sites, online publications, online audiovisual programs, or other broadcasting of information on the Internet (except for music), and

those sectors that have been liberalized due to China's membership in the World Trade Organization.

3. It is prohibited to create and publish maps on the internet.
4. If a domestic entity cooperates with a foreign entity to create online news, this activity shall be subject to a National Security Review.

Crucially, with e-commerce exempted from the restricted industries, foreign investors can now set up e-commerce companies in Fujian, Guangdong, and Tianjin as well as Shanghai.

Finance

The new negative list has a detailed set of rules for investment in banks:

1. The shareholder(s) in a bank that is either wholly foreign-owned or a Sino-foreign joint venture must itself be a financial institution, and the controlling entity a commercial bank. The investor in a fully Chinese-owned bank or trust company must be a financial institution.
2. Only foreign banks may invest in Chinese rural commercial banks, rural cooperative banks, or rural credit cooperative unions.
3. The investor in a financial leasing company must itself be a financial leasing company.
4. The main capital contributor in a consumer finance company must be a financial institution.
5. The investor in a currency brokerage must itself be a currency brokerage.
6. The investor in a financial asset management company must itself be a financial institution, but may not be involved in the establishment of a new asset management company.
7. The investor in a financial institution will be subject to asset requirements—the negative list does not specify the amounts.
8. In addition, foreign banks may not conduct the following activities, as defined in the *Commercial Banking Law*: Acting as an agent to issue, honor, and underwrite government bonds; issuing bank cards; or acting as an agent for receipt and payments of funds. Apart from taking time deposits for Chinese nationals of less than RMB 1 million, foreign banks in China may not engage in RMB activities for Chinese nationals.
9. The parent company of a foreign-invested bank in China must provide its operational funds free of charge. The foreign-invested bank must operate with an 8 percent capital reserve. Banks providing RMB services must follow the minimum required business hours.

The requirements for financial companies other than banks focus mainly on equity restrictions:

1. Futures companies: Require Chinese majority interest.
2. Securities companies: Foreign investment may not exceed 49 percent of shares. In addition, for securities companies listed on the stock exchange, a single foreign entity may not hold over 20 percent of shares, and total foreign shareholding may not exceed 25 percent.

3. Fund management: Foreign investment may not exceed 49 percent of shares.
4. Foreign entities may not become regular members of futures and securities exchanges, and may not open securities and futures accounts to trade A shares.
5. Life insurance: Foreign investment may not exceed 50 percent of shares.
6. Chinese insurance companies must hold at least 75 percent of shares in insurance asset management companies.

Leasing and commercial services

1. Accounting: The main partner must be a Chinese national.
2. Legal services: Foreign law firms may be present in China only through a representative office, which is subject to approval. Foreign nationals may not advise on Chinese law or become partners of a Chinese law firm. Representative offices of foreign law firms may not hire Chinese legal professionals, and its support staff may not provide legal advice.
3. Credit rating: Restricted.
4. Investment in polling and social surveys: Prohibited.
5. Market research is restricted to contractual or equity joint ventures, with the surveying of radio and television requiring Chinese controlling interest.
6. The legal representative of a visa agency must have Chinese nationality and domicile.

Hydraulic and environmental projects and management of public facilities

1. Foreign investors are prohibited from projects involving the development of wildlife native to China and under the country's protection.
2. Foreign investors are also prohibited from collecting and purchasing wild plants that are on the national list.

Education

1. Foreign entities may not independently establish schools and educational institutions enrolling mainly Chinese nationals (except for non-academic vocational training).
2. Foreign entities may establish and run educational institutions in cooperation with a Chinese party, under the following conditions:
 - a. Education must be unrelated to the military, law enforcement, politics, or political parties.
 - b. Foreign entities may not provide religious education.
 - c. Regular high schools and tertiary education institutions must be led by the Chinese party, i.e., the principal or main administrator must be a Chinese national and be domiciled in China; the board of the school must have a Chinese majority and the education program must be in line with Chinese law.

Health and social work

Medical institutions can be set up as equity or contractual joint ventures.

Science and technology

Most types of mapping activities are prohibited for political reasons.

1. Mapping of the oceans, administrative boundaries, political maps, maps for use in education, aerial photography, most other types of maps, and geological research: Prohibited.
2. For companies engaging in mapping that is allowed: Requires Chinese controlling interest.
3. Human stem cell and genetic research: Prohibited.
4. Establishing and operating social science research centers: Prohibited.

Media, culture, and entertainment

1. The establishment and operation of television and radio stations, television channels, broadcast networks, satellite television, TV on-demand, and other broadcast media: Prohibited.
2. The production of television and radio shows: Prohibited.
3. Foreign satellite channels are subject to approval.
4. Sino-foreign co-productions of television and film series are subject to a licensing system.
5. The establishment of news and press agencies, publishing companies, and newspapers: Prohibited.
6. Foreign news agencies may set up a representative office in China and employ foreign reporters upon approval of the Chinese government. Foreign press agencies may provide news services in China upon approval of the Chinese government.
7. The production of newspapers, books, audiovisual materials, periodicals, electronic publications, etc.: Prohibited.
8. Cooperation between Chinese and foreign news agencies must be led by the Chinese side and is subject to approval of the Chinese government.
9. Provision of financial information is subject to approval of the Chinese government.
10. The construction and operation of cinemas: Prohibited.
11. The establishment of performing arts groups in China is prohibited, and performance agencies must have Chinese controlling interest.

The new negative list no longer prohibits construction of villas, nor does it restrict investment in hotels, offices, and convention centers.

Foreign Investment National Security Review

The new free trade zone regulations state that certain foreign investments will be subject to a National Security Review. The concept of a National Security Review was first introduced when the Chinese government released a draft of the new *Foreign Investment Law*. The intention behind the National Security Review is to keep national security risks in check while more industries are opened to foreign investment.

The review is conducted by the National Development and Reform Commission and the Ministry of Commerce, usually at the suggestion of the registration authority of the FTZ. Such a review considers six factors:

1. Impact on national security, including China's capacity to provide essential goods and services to that end.
2. Impact on the stability of the economy.
3. Impact on basic social order.
4. Impact on culture and social morality.
5. Impact on Internet security.
6. Impact on sensitive technology for use in national defense.

The review is held when an investment is believed to touch upon sensitive agricultural products, key natural resources and energy, strategic infrastructure, transport capabilities, important IT and technology, or investment near military facilities.

Interestingly, the review does not merely look at the equity a foreign party has in a Chinese company, but extends to the "actual control" over a company. In the separate regulation that introduces this National Security Review, the term "actual control" is defined for the first time. It refers to one or more foreign investors, and parties affiliated to them (i) holding over 50 percent of a company's shares; (ii) having sufficient voting rights to exert significant control over the company's board of directors or shareholder's meeting; or (iii) through other circumstances, being able to exert significant control over the company's operational decision, staffing, finance, or technology.

Also, the regulation does not only apply to foreign entities setting up a company in China or purchasing the shares or assets of Chinese companies. "Foreign investment" is also considered to be obtaining control by agreement, holding of assets by an agent for a foreign entity, transactions that

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