CHAPTER 9

Renminbi Internationalization

MALHAR NABAR AND CAMILO E. TOVAR

The current role of emerging market currencies in the international monetary system is limited. However, the increasing importance of emerging markets in the global economy suggests that these currencies could become a vehicle for greater reserve currency diversification and the production of reserve assets in the future.

In recent years, the growing importance of China in the global economy (Figure 9.1), the policies and reforms implemented by the Chinese authorities, and the increasing interconnectedness of the global economy have set the stage for a greater role for the renminbi (RMB) in the international monetary and financial system. In November 2015 the IMF’s Executive Board recognized the increasing use in economic and financial transactions and wide trading of the RMB by deciding to include the RMB in the special drawing right (SDR) basket of currencies, effective on October 1, 2016 (IMF 2015a, 2015b). The decision is another milestone in the integration of the Chinese economy into the global financial system and an acknowledgment of China’s progress in reforming its monetary and financial system.

This chapter examines RMB internationalization. It briefly discusses what drives currency internationalization, looks at the existing literature, reviews key developments in offshore RMB use and trading, summarizes underlying policy measures that have promoted RMB internationalization, and discusses the implications of RMB internationalization for the international monetary system.

This chapter draws on material prepared by the authors for the 2015 SDR Valuation Review (IMF 2015a, 2015b). We are greatly indebted to IMF staff involved in the review. In particular, we thank Siddharth Tiwari, Andrew Tweedie, Sean Hagan, Andreas Bauer, Tom Krueger, Bernhard Sturcki, Donal McGettigan, Ceyda Oner, and Andrew Swiston for their detailed comments and suggestions. We also thank Alfred Kammer, Kristina Kostial, Alfred Schipke, W. Raphael Lam, and Mark Milford for their comments and encouragement to prepare the chapter. Finally, we acknowledge the excellent assistance of Frank Wallace, Yang Hao, Ji Jiang, and Arshia Karki.

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CURRENCY INTERNATIONALIZATION: A LITERATURE OVERVIEW

An international currency is usually one used and held beyond the borders of the issuing country, not merely for transactions with residents, but also for transactions between nonresidents (Kenan 2009). Moreover, an international currency performs several tasks—and in line with those of a currency used solely domestically—as a unit of account, medium of exchange (means of payment), and store of value. This allows the private sector to use the currency as a vehicle for transactions (invoicing or financial transactions), and the official sector for interventions, as an anchor (a peg, for example), or as reserves (Krugman 1984).

While the internationalization of a currency is ultimately market driven, supporting policies can facilitate it. Historical evidence and the existing literature suggest that a number of factors drive currency internationalization (Chinn 2015; Frankel 2011; Maziad and others 2011). To start with, the issuer has to be eager to internationalize the currency, with the authorities promoting its use and trading—rather than deliberately choosing not to—as Germany did with the deutsche mark in the 1970s (Eichengreen 2011). Policies can support the international use of a currency as a unit of account and medium of exchange by encouraging the establishment of trade networks and invoicing in a country’s own currency. For this, both the size and structure of the economy matter. Increasing trade and financial integration is also likely to foster currency internationalization. The

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development of deep and liquid financial markets onshore and offshore, especially for sovereign debt trading, has also been identified as a key feature of successful currency internationalization. However, this requires a certain degree of openness of the capital account. Moreover, the international use of a currency—in particular as a reserve asset—will depend on its stability, which in turn hinges on the creditworthiness of the sovereign, as captured by stable, sustainable, and predictable macroeconomic outcomes; strong institutions; and the integrity of markets (including a reliable rule of law). Finally, policymakers should have the capacity to respond to unexpected shocks and to influence expectations, and the central bank must be able and willing to provide liquidity to support financial institutions (both foreign and domestic) if the market for its currency dries up.

While policies can help support currency internationalization, the process is not straightforward and is subject to a number of caveats. First, it is essential to determine the right pace, sequencing, and prioritization of reforms and to design a process consistent with a country’s institutional and financial development. For instance, given that financial deepening and capital account liberalization are important drivers of currency internationalization, considerations regarding the appropriate sequencing of these reforms apply here as well; for example, liberalization of more stable inflows first, followed by the liberalization of long-term and short-term portfolio flows (IMF 2012). Similarly, countries will need to manage trade-offs that may arise during internationalization (such as balancing the need for deepening sovereign debt markets to enhance market liquidity with the need to ensure fiscal soundness and debt sustainability).

Second, the relative importance of specific policies to support the process will likely vary across countries. For example, the size of financial markets—rather than the size of the economy—has been fundamental to supporting the international use of the Swiss franc or the British pound (Maziad and others 2011). Similarly, the development of a cross-currency swap market (such as for liquidity funding) has played a key role in increasing the international use of the Australian dollar (McCauley 2006).

Third, countries should also take into account the benefits and risks associated with currency internationalization. While they are likely to benefit from lower transaction costs, greater ability to issue debt at more favorable terms, and increased seigniorage, they are also likely to face risks—such as larger and more volatile capital flows, and heightened volatility in asset prices—and more complex policy trade-offs for monetary and financial stability. Recent experiences with some safe-haven currencies in small open economies have been a reminder of these challenges—Switzerland, for example (Jordan 2016). Finally, countries whose

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1When non-U.S. residents use the U.S. dollar to settle trade and make investments, they do not transact onshore through banks and in financial markets in the United States. On the contrary, they concentrate transactions in international financial centers such as the eurodollar market in London. It is for this reason that many consider that without offshore markets the U.S. dollar would not have attained the dominant position in international trade and payments it has today. See He and McCauley 2010.

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currencies are used as reserves may be called on to support global liquidity in periods of stress and may need to coordinate policies with other reserve-currency-issuing countries in some circumstances.

**TAKING STOCK OF RMB INTERNATIONALIZATION**

Growth in the international use of the RMB has traced several of these features of currency internationalization.

**Offshore Use**

The use of RMB in cross-border payments has grown rapidly in recent years along with its status as an increasingly actively traded currency in global financial markets. This movement reflects the growth and increasing interconnectedness of the Chinese economy with the rest of the world, which has resulted in a growing interest and willingness among nonresidents to settle cross-border trade and direct investment payments in RMB, to invest in RMB-denominated securities, and to obtain funding in the currency.

**RMB Trade Settlement**

Since its accession to the World Trade Organization in 2001, China’s swift rise up the ranks of trading nations has positioned it as the single-largest trading partner for Asia and sub-Saharan Africa, and the second-largest trading partner for the European Union, the United States, and Latin America. It is now the largest source of imports for the United States, the European Union’s 28 members, and Japan, which together account for nearly 50 percent of world GDP.

The use of RMB for cross-border trade invoicing and payment has grown rapidly since its introduction in 2009. In 2014 close to 20 percent of China’s goods trade was settled in RMB, and nearly 25 percent of other current account transactions—services, income, and dividend payments (IMF 2015a). In 2015 the RMB settlement portion of China’s goods trade rose nearly 10½ percent over the previous year, while that of other current account transactions rose close to 28½ percent (PBC 2016). Among the factors cited for the rapid rise are mutual benefits, such as better pricing for nonresident buyers; more security against currency risk for Chinese entities; and more efficient cash flow management and lower transactions costs for both sides.

**RMB Direct Investment Settlement**

Since 2011 direct investment payments—inward foreign direct investment (FDI) and outward direct investment—have been permitted in RMB. The RMB is rapidly advancing as the currency of choice for settling direct investment payments in both directions. Nearly 30 percent of FDI transactions were settled in RMB in 2014, up from 13 percent in 2012. Reflecting a growing willingness of nonresident counterparties to accept RMB in settlement, close to 16 percent of China’s outward direct investment was settled in RMB in 2014, up from just 4
percent in 2012 (IMF 2015a). In 2015 the RMB settlement portion of China’s FDI and outward direct investment increased 65.2 percent and 228.1 percent over the previous year (PBC 2016).

**Offshore RMB Deposits**

Licensed banks in Hong Kong Special Administrative Region (SAR) began accepting RMB deposits in February 2004, initially primarily to support mainland tourism and remittances. The pace of accumulation began to accelerate after cross-border trade settlement in RMB was permitted in 2009, driven by corporate deposit growth. Offshore RMB deposits rose to RMB2.3 trillion in 2014 (from about RMB100 billion in 2010) as the RMB appreciated against major currencies over this period. The volume of offshore RMB deposits has since dropped to around RMB1.3 trillion in mid-2016 (Figure 9.2).

**Offshore RMB Bonds**

Providing foreign investors with a deep and liquid pool of high-quality RMB assets is crucial to China’s goal of boosting international use of its currency. The issuance of offshore RMB bonds—usually referred to as “dim sum” bonds by traders—was initially restricted to mainland policy and commercial banks,
starting with China Development Bank listing in July 2007 in Hong Kong SAR. China’s own sovereign issuance in Hong Kong SAR has been an important driver of the market since the first auction took place in September 2009, and further boosted by foreign investors’ perceptions of the RMB as a safe bet to rise in value or at least hold steady.

Several corporate issuers have tapped RMB funds in the offshore market, including foreign firms such as McDonald’s, Volkswagen, and Caterpillar. Issuance has since spread, including to centers outside Asia such as London, where HSBC issued the first RMB-denominated bond in April 2012.

Overseas agencies and governments have also been active in tapping offshore RMB funds. In September 2014 the International Finance Corporation issued what was then the largest London-listed RMB bond, worth RMB1 billion. In October 2014 the United Kingdom issued its first RMB-denominated sovereign bond (raising RMB3 billion) and indicated the proceeds would be held as foreign exchange reserves. A month later the Canadian province of British Columbia issued its second RMB-denominated bond, for RMB3 billion.

Instruments that allow hedging of interest rate and currency risk have accompanied the growth of the offshore debt market. Market participants note the large volumes in cross-currency swaps involving offshore RMB and the emergence of the cross-currency swap curve as a key offshore RMB benchmark interest rate curve.

While these developments have possibly facilitated the growth of the dim sum bond market, regression analysis by Law (2016) confirms that the net issuance of dim sum bonds has been mainly driven by expectations of RMB appreciation from CNY nondeliverable forwards and the CNH-CNY basis, a measure for ease of RMB hedging (where CNY and CNH are the internationally recognized codes for trades in the Chinese currency onshore and offshore). By contrast, the interest rate differential between onshore and offshore and credit spreads in both onshore and offshore markets are found to be statistically insignificant factors determining the issuance of dim sum bonds.

Foreign Holdings in RMB

Sparse data on central bank holdings of RMB-denominated assets preclude a definitive judgment of how widespread the practice is. As of April 2015 the People’s Bank of China estimates the total offshore holding of bonds, stocks, deposits, and other RMB assets by foreign central banks and monetary authorities amounted to RMB666.7 billion—slightly more than US$100 billion.2

Offshore Trading

The 2016 Bank for International Settlements Triennial Central Bank Survey on Foreign Exchange and Derivatives Market Activity shows that the RMB’s share

2Starting in October 2016 the IMF identifies the RMB in its official foreign exchange reserves database. This provides a better picture of official reserves holdings of RMB.
of global foreign exchange turnover over the past few years has increased rapidly from a low base. These developments were already evident in the 2013 survey, which showed a considerable increase in the RMB’s share of trading volumes since 2010, to 1.1 percent of total global turnover (daily average turnover of $120 billion) and 0.8 percent of spot global turnover ($34 billion). In 2016 these shares had increased to 2.0 percent in both instances ($202 and $68 billion, respectively). This amount places global turnover in the RMB behind the other reserve currencies in the world (that is, the U.S. dollar, the euro, the Japanese yen, the pound sterling, the Australian dollar, the Canadian dollar, and the Swiss franc). IMF analysis using SWIFT data—based on interbank messages used to confirm foreign exchange transactions—also shows that total RMB turnover increased by 108 percent from the first quarter of 2013 to the second quarter of 2015 (IMF 2015b).

Foreign exchange market activity by region shows RMB trading is most common in Asia, constitutes a small but growing share in Europe, and is still thin in North America. Since electronic trading is now widespread, the association between the location of the foreign exchange transaction and that of the underlying clients has weakened, as trades booked in a particular market could be executed on behalf of clients elsewhere. Therefore, data on foreign exchange turnover by trading center are best analyzed by aggregating trades across three broad time zones (Asia, Europe, and the Americas) and can indicate overall liquidity in each. Doing so confirms that the RMB is one of the most-traded currencies in Asia. The 2016 BIS Triennial Survey also confirms that, and mainland China, Hong Kong SAR, and Singapore account for almost three-quarters of global RMB turnover. RMB trading has also increased rapidly in London and now averages more than $40 billion per day (15 percent of total offshore trading). Trading in North America remains very thin, but there has been substantial growth relative in other markets (such as Korea).

Data on hourly foreign exchange transactions from the Electronic Broking Services (EBS) platform confirm this trading profile, with a significant volume in the offshore renminbi bond market (CNH) during Asian trading hours, which also overlap with the first hours of the European trading day (Figures 9.3 and 9.4). The profile of hourly CNH turnover is similar to that of the Swiss franc against the U.S. dollar on the EBS platform. Turnover in the major currency pairs tend to remain higher during off-peak hours, even as turnover in those currency pairs drops substantially from late in North American trading hours until Asian trading picks up.

Detailed data from the EBS trading platform can be used to obtain an additional perspective on the relative stance of the USD/CNH currency pair.

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This chapter uses in its analysis the following currencies and international codes for them:
- Australian dollar (AUD), euro (EUR), British pound (GBP), Canadian dollar (CAD), Chinese renminbi (RMB), Swiss franc (CHF), Hong Kong dollar (HKD), Japanese yen (JPY), Mexican peso (MXN), Russian ruble (RUB), Singapore dollar (SGD), the South African rand (ZAR), and the United States dollar (USD).
Specifically, several indicators are constructed to capture the cost of executing trades (bid-offer spreads and effective trading costs) and measure market resilience to order flow (order-flow price impact and order-flow price return reversal). The costs of executing trades in the USD/CNH currency pair are on average nearly as low as those for the USD/JPY and USD/EUR currency pairs, albeit with a wider distribution across transactions and more variation across time zones, while in this sample comparing favorably to a number of other currency pairs (Figures 9.5 and 9.6). Similarly, USD/CNH market resilience was found to be among the strongest of the currency pairs analyzed. While exchange rates are affected by a variety of factors, the analysis found the price impact and return reversal of the USD/CNH currency pair less sensitive to net...
buying/selling pressures than those of other major currency pairs. These results should be interpreted with caution, given that data coverage varies across currency pairs and the EBS platform represents only a portion of the global foreign exchange market.

Sources: Electronic Broking Services (EBS); and IMF staff calculations.
Note: GMT = Greenwich Mean Time.
1 The indices are calculated by taking the daily average of the volumes traded across all currency pairs equal to 100.
Overall Progress

The RMB globalization index, which measures growth in offshore RMB usage—by taking into account the four areas covered in our analysis, CNH deposits, trade settlement and other international payments, dim sum bonds and certificates of deposit issued, and foreign exchange turnover—shows a sustained increase in RMB internationalization over the past few years (Figure 9.7). However, most of this progress since 2009 has been in its use for trade settlement and direct investment purposes. The use of the RMB as an international funding and reserve currency, while growing, remains in its early stages. Evidence also shows that the RMB is widely traded offshore and its liquidity is comparable to that of other major currency pairs.
Furthermore, progress made so far suggests prospects for the internationalization of the RMB remain strong, particularly as policies and reforms continue to support the process (as we discuss next). These structural supporting factors will likely more than compensate for any transitory developments that can affect the attractiveness of the RMB—such as the RMB’s depreciation on August 2015 that affected the RMB yield (see Box 9.1).4

4Yields are important determinants of internationalization. Evidence shows that one of the most important factors in explaining the growth of the euromarket was the dollar yield (McCauley 2005).
UNDERLYING POLICY MEASURES TO PROMOTE RMB INTERNATIONALIZATION

While the internationalization of a currency is market driven, policies and reform can play a key supporting role. In this regard, the Chinese authorities have implemented policy reforms to encourage RMB internationalization and strengthen macro-financial stability by taking gradual steps to develop functioning markets, move to market-determined prices and interest rates, and put in place sound policy frameworks.

Policy measures to promote RMB internationalization, particularly its use as an investment and funding currency, have covered three main areas: gradual opening of the capital account, steps to strengthen the domestic financial system, and offshore liquidity support through improvements to cross-border payments infrastructure and central bank swap lines. Table 9.1 provides a timeline with the policy measures implemented to support RMB internationalization. The progress made in each of these areas will be discussed next.

Gradual Opening of the Capital Account

While China allowed RMB convertibility on the trade accounts nearly two decades ago, capital account transactions remain in varying degrees under control. Capital account transactions with China are generally subject to restrictions, preapprovals, and quotas, as summarized in the IMF’s 2016 Annual Report.
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<tr>
<td>Jul-09</td>
<td>PBC/MOC/ GACC/SAT/ CBRC</td>
<td>Pilot program for cross-border trade RMB settlement was launched in Shanghai and four cities in Guangdong province. The program was subsequently expanded to 20 cities in June 2010 and nationwide in July 2011.</td>
<td>PBC Document [2010] No. 186 PBC Document [2011] No. 203</td>
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<tr>
<td>Sep-09</td>
<td>MOF</td>
<td>Ministry of Finance issued RMB treasury bonds for RMB6 billion in Hong Kong SAR, the first issuance outside mainland China.</td>
<td>PBC Document [2010] No. 217</td>
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<tr>
<td>Aug-10</td>
<td>PBC</td>
<td>Offshore central bank or monetary authority, offshore RMB clearing banks, and other offshore participants allowed to invest in the interbank market (China Interbank Bond Market).</td>
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<tr>
<td>Aug-10</td>
<td>CFETS</td>
<td>Initiated direct currency trading with Malaysian ringgit and eventually added other currencies such as RUB, JPY, AUD, NZD, GBP, EUR, SGD, CHY, ZAR, and KRW as of June 2016.</td>
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<tr>
<td>Jan-11</td>
<td>PBC</td>
<td>Domestic institutions were allowed to use RMB for outward foreign direct investment.</td>
<td>PBC Announcement [2011] No. 1</td>
</tr>
<tr>
<td>Oct-11</td>
<td>PBC</td>
<td>Foreign Institutions were allowed to use RMB for inward foreign direct investment.</td>
<td>PBC Announcement [2011] No. 23</td>
</tr>
<tr>
<td>Oct-11</td>
<td>PBC</td>
<td>Onshore banks can make RMB loans for offshore projects.</td>
<td>PBC Announcement [2011] No. 255</td>
</tr>
<tr>
<td>Dec-11</td>
<td>CSRC/PBC/ SAFE</td>
<td>Renminbi qualified foreign institutional investor (RQFII) scheme was officially launched. Expanded to RMB200 billion for Hong Kong SAR in November 2012. Expanded quota and broadened eligibility requirements on investor type in March 2013. As of end-June 2016 granted quota to 19 countries/regions. The total quota ceiling is RMB1,460 billion, of which RMB508 billion has been approved.</td>
<td>CSRC Order No. 76 CSRC Order No. 90</td>
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<tr>
<td>Dec-12</td>
<td>PBC</td>
<td>Authorized Bank of China Taipei Branch as RMB clearing bank in Taiwan Province of China. Having agreed on clearing settlements with 20 countries/regions.</td>
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<td>Mar-13</td>
<td>PBC</td>
<td>Granted Qualified Foreign Institutional Investor access to onshore interbank bond market.</td>
<td>PBC Document [2013] No. 69</td>
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<td>Jul-13</td>
<td>PBC</td>
<td>Simplified the procedures for various cross-border businesses.</td>
<td>PBC Document [2013] No. 168</td>
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<tr>
<td>Sep-13</td>
<td>PBC</td>
<td>Foreign investors can use RMB to invest in domestic financial institutions.</td>
<td>PBC Document [2013] No. 217</td>
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<td>Sep-13</td>
<td>PBC</td>
<td>Launched the first Free Trade Zone (FTZ) in Shanghai. In February 2014 cross-border RMB cash-pooling scheme allowed companies within the Shanghai FTZ for two-way flows of cash with their parent companies and affiliates.</td>
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<td>Dec-13</td>
<td>PBC</td>
<td>Adjusted the quota management to macroprudential management for the RMB purchases and sales.</td>
<td>PBC Document [2013] No. 321</td>
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<td>Nov-14</td>
<td>CSRC/PBC</td>
<td>Hong Kong-Shanghai stock connect was officially launched as well as Renminbi Qualified Domestic Institutional Investor (RQDII).</td>
<td>PBC Document [2014] No. 336 PBC Document [2014] No. 331 RQDII new quota suspended in January 2016</td>
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<th>Date</th>
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<th>Notes</th>
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<tr>
<td>Nov-14</td>
<td>PBC</td>
<td>Cross-border RMB cash-pooling schemes were expanded to multinational corporations across the rest of China with cap of RMB cash inflows and no limit for outflows. Relaxed the requirements for qualified corporations and increased the cap in September 2015.</td>
<td>PBC Document [2014] No. 324</td>
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<td>PBC Document [2014] No. 279</td>
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<td>Jun-15</td>
<td>PBC</td>
<td>Open interbank repo market to qualified foreign banks.</td>
<td>PBC Document [2015] No. 170</td>
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<td>Jul-15</td>
<td>PBC</td>
<td>Plan to price and settle China’s first crude oils in RMB.</td>
<td>PBC Announcement [2015] No. 19</td>
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<td>Jul-15</td>
<td>PBC</td>
<td>Lifted the cap for foreign central banks, sovereign wealth funds, and international financial institutions in the interbank market. By end-September 2015 granted them to the onshore foreign exchange market on a registration basis. In February 2016 further expanded the scope by permitting most types of foreign institutional investors (deemed as medium or long-term by PBC) into the China Interbank Bond Market.</td>
<td>PBC Document [2015] No. 220</td>
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<td>Aug-15</td>
<td>PBC</td>
<td>Reformed RMB fixing mechanism to make it more market driven.</td>
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<td>Oct-15</td>
<td>PBC</td>
<td>Launched Cross-Border Interbank Payment System in Shanghai. The current system (Phase I) adopts real-time gross settlement approach.</td>
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<td>Nov-15</td>
<td>PBC</td>
<td>IMF announced the inclusion of RMB in the special drawing right basket by October 2016.</td>
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<td>Nov-15</td>
<td>PBC/SAFE</td>
<td>Securities regulators in China and Hong Kong SAR announced first batch of approval for mutual fund recognition, allowing recognized funds in Hong Kong SAR to be distributed in China and vice versa.</td>
<td>PBC and SAFE Announcement [2015] No. 36</td>
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<td>Dec-15</td>
<td>PBC/CFETS</td>
<td>CFETS published CFETS CNY index, shifting focus from USD/CNY bilateral exchange rate to a trade-weighted index.</td>
<td></td>
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<td>Jan-16</td>
<td>PBC/CFETS</td>
<td>PBC lengthened interbank foreign exchange trading hours from 9:30–16:30 to 9:30–23:30.</td>
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<td>Feb-16</td>
<td>SAFE</td>
<td>Relaxed Qualified Foreign Institutional Investor quotas, with maximum allocations now linked to assets under management and subject to a ceiling of $5 billion.</td>
<td>PBC Announcement [2011] No. 3</td>
</tr>
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</table>

Source: National authorities.

Note: CBRC = China Banking Regulatory Commission; CFETS = China Foreign Exchange Trading System; CSRC = China Securities Regulatory Commission; GACC = General Administration of Customs of the People’s Republic of China; MOC = Ministry of Commerce; PBC = People’s Bank of China; SAFE = State Administration of Foreign Exchange; SAT = State Administration of Taxation.
on Exchange Rate Arrangements and Restrictions (AREAER). As part of a broader financial reform agenda, however, the authorities have been gradually easing restrictions, widening channels of access, and increasing quotas for two-way flows (for example, the U.S. dollar “Qualified Foreign Institutional Investor—QFII” program that from 2003 has given foreign asset managers access to the mainland securities markets, and the U.S. dollar “Qualified Domestic Institutional Investor—QDII” program, established in 2006, through which Chinese asset managers can invest in overseas securities markets, both subject to approval and quotas).

Lower Regulatory Barriers

Steps have also been taken to facilitate cross-border transactions, including by reducing the costs associated with regulatory approval. For certain direct investment transactions in the capital account, the regulations have already shifted from preapprovals to registration and ex post monitoring. The State Administration of Foreign Exchange (SAFE) tracks each transaction and follows up with banks on aberrant transfers. The IMF reports in its 2016 Article IV that the authorities take the view that capital account liberalization will proceed with a broad rationale to minimize disruptive short-term capital flows, contain currency and maturity mismatches, and exercise tight supervision to curb money laundering, terrorist financing, and tax evasion.

Easier Market Access for Official Institutions and Long-Term Private Investors

Over the past year, the authorities have introduced specific measures to ease access to onshore markets for overseas official institutions and private institutions, by removing restrictions on the type of instruments and amounts authorized for investment. However, the authorities expect these institutions to act as long-term investors and the PBC will regulate their trading in accordance with reciprocity principles and macroprudential requirements. The timeline for these measures was as follows:

- In July 2015 the authorities announced that foreign central banks, sovereign wealth funds, and international financial institutions registered with the PBC could choose their own size of investment in the onshore China Interbank Bond Market (CIBM), repurchase agreements (repos), bond lending, bond forwards, interest rate swaps, and forward rate agreements. The guidelines permitted these overseas official institutions to select either the PBC or a settlement agent registered with the PBC to conduct trading and settlement on their behalf.
- In September 2015 official sector reserve managers and their agents were allowed to take part in the onshore foreign exchange market through any of

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On August 11, 2015, the RMB had its largest single-day depreciation since the People’s
Bank of China (PBC) resumed its exchange rate reform on July 21, 2005. The weakening of
the RMB reference rate against the U.S. dollar by 1.9 percent (from 6.12 to 6.23 CNY per
USD), was described by the central bank as a “one-off adjustment” and followed the PBC
decision to modify the fixing of the exchange rate to better reflect market forces. As shown
in this chapter, the RMB’s use and trading has increased substantially since 2010, becoming
one of the most traded currencies in the Asian time zone, and displaying reasonably deep
liquidity during the first part of the European trading day. This box examines how the 2015
depreciation influenced the trading and liquidity conditions of the USD/CNH along with
11 other major currency pairs across the world (AUS/USD, EUR/USD, GBP/USD, USD/CAD,
USD/CHF, USD/HKD, USD/JPY, USD/MXN, USD/RUB, USD/SGD, and USD/ZAR). Specifically,
we use high-frequency intraday (one-second basis) data from Electronic Broking Services
(EBS) to gauge liquidity conditions in foreign exchange markets by calculating quantity-
based indicators, such as trading volumes, as well as price-based indicators, such as bid-ask
spreads, effective cost of transactions, and the price impact effect from order flows (see
Annex 9.1).

Results—reported on a weekly basis for tractability purposes—indicate that PBC’s deci-
sion led to a temporary decoupling of the RMB offshore market (CNH) from the onshore
market (not shown), and induced a transitory tightening of liquidity conditions in the
trading of the USD/CNH. Furthermore, there is evidence that PBC’s decision triggered
comovements (a phenomenon known in the finance literature as “commonality”) in the
trading of some Asian currency pairs (mainly the USD/SGD and the USD/HKD) at the time
of the depreciation, but only across some liquidity dimensions (as we discuss below).
However, evidence of commonality with other currency pairs outside Asia are not evident.

Specifically, the analysis shows evidence of liquidity strains in the USD/CNH market
following the RMB’s depreciation:

(1) the distribution for the size of trades in the USD/CHN market widened and shifted
slightly upward in the three weeks following August 11 (Figure 9.1.1, panel 1);
(2) USD/CNH bid-ask spreads widened on average 2.2 basis points (bps) on the week of the
depreciation, about three times those quoted in the four weeks before the event,
0.66 bps (Figure 9.1.2, panel 1);
(3) the distribution of the effective cost of transactions market widened and shifted
upward (Figure 9.1.3, panel 1); and, finally,
(4) the response of foreign exchange returns to order flows (price impact response)
increased.

While results confirm the USD/CNH market experienced liquidity strains in the days
following the RMB depreciation, trading in USD/CNH was resilient enough to recover from
the overshoot. Indeed, the price impact of order flows was reversed in the three days fol-
lowing the event.

The analysis also confirms that because of the steady internationalization of the RMB
and its growing importance, shocks in China have commonality effects on the trading of
other Asian currency pairs. This is evident in the tightening of liquidity across Asia following
the RMB’s depreciation.

Particularly, we find an upward shift in the distribution of deals sizes and bid-ask
spreads of the Hong Kong dollar (USD/HKD) and the Singapore dollar (USD/SGD). However,
we find no evidence of comovements in the transaction costs or price impact in the trading
of other currency pairs.
While the analysis reported here gauges only liquidity conditions, it constitutes a first step toward better understanding the functioning of the limitedly transparent, highly heterogeneous, and decentralized foreign exchange market and its spillover effects. Understanding such liquidity conditions can also help assess funding costs in financial markets, rollover risks, and the ability of agents to hedge foreign exchange strategies—all key aspects in assessing the importance of an international currency.

Figure 9.1.1. Deal Size—Four-Week Window around the August 11, 2015, RMB Depreciation (Hourly average—index, sample average = 100)

<table>
<thead>
<tr>
<th>Currency Pair</th>
<th>Period</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD-CNH</td>
<td>t-4 t-3 t-2 t-1 t = 0 t+1 t+2 t+3 t+4</td>
<td>700</td>
</tr>
<tr>
<td>USD-HKD</td>
<td>t-4 t-3 t-2 t-1 t = 0 t+1 t+2 t+3 t+4</td>
<td>600</td>
</tr>
<tr>
<td>USD-JPY</td>
<td>t-4 t-3 t-2 t-1 t = 0 t+1 t+2 t+3 t+4</td>
<td>500</td>
</tr>
<tr>
<td>USD-SGD</td>
<td>t-4 t-3 t-2 t-1 t = 0 t+1 t+2 t+3 t+4</td>
<td>400</td>
</tr>
</tbody>
</table>

Sources: Electronic Broking Services (EBS); and IMF staff calculations.
Box 9.1. Currency Trading following the RMB Depreciation

Figure 9.1.2. Bid-Ask Spreads—Four-Week Window around the August 11, 2015, RMB Depreciation

(Basis points)

1. USD-CNH  
2. USD-HKD  
3. USD-JPY  
4. USD-SGD

Sources: Electronic Broking Services (EBS); and IMF staff calculations.

Figure 9.1.3: Effective Transaction Costs, Price Impact, and Return Reversal Four Weeks before and after the August 11, 2015, RMB Depreciation

(Basis points)

1. USD-CNH  
2. USD-CNH

Sources: Electronic Broking Services (EBS); and IMF staff calculations.
three channels, including entrusting the PBC as their agent, using interbank foreign exchange market members as their agents, or participating in the interbank market as foreign members. They can execute foreign exchange trades and hedge risk across all maturities, without prior requirement to hold an underlying RMB asset or demonstrate their need for using the instrument.

- In December 2015 the PBC approved RMB convertibility on the capital account with a prescribed limit of $10 million for the Tianjin, Guangdong, and Fujian free trade zones.

- In February 2016 the authorities announced that overseas commercial banks, insurance firms, pension funds, and other foreign fund managers the PBC considered to be long-term investors would have quota-free access to the onshore CIBM. Under this new regime, foreign institutional investors have to first register with the PBC before they can trade bonds in the CIBM. As such, the PBC is unlikely to grant hedge funds and other short-horizon investors access to the CIBM.

Channels for Repatriating RMB Funds

Amid gradual opening of the capital account, nonresident interest in RMB as a funding and investment currency has been supported by specific steps to allow RMB funds to flow onshore.

- The “Renminbi Qualified Foreign Institutional Investor (R-QFII)” program, introduced in 2011, allows foreign asset managers to channel offshore RMB funds into mainland securities markets, subject to approval measures from two agencies: a license from the China Securities Regulatory Commission and a quota from the State Administration of Foreign Exchange. Market participants note that restrictions on remittances of dividends, minimum holding periods, and “soft” barriers to holding cash onshore deter entry (about 50 percent of overall approved quotas have been used). Nevertheless, familiarity with market conditions seems to mitigate these obstacles in some cases (the Hong Kong SAR R-QFII quota has been fully taken up).

- Since November 2014 individuals and institutional investors with a brokerage account in Hong Kong SAR can trade stocks on the Shanghai stock exchange under the North-bound corridor of the “Shanghai–Hong Kong Stock Connect” scheme, while a South-bound corridor permits trades in the reverse direction (Hong Kong SAR stocks traded via a Shanghai brokerage account). Although take-up from Hong Kong SAR has been significant (about 50 percent of the RMB300 billion North-bound quota has been used as of May 2015), a lack of clarity on the legal framework governing ownership and voting rights for onshore stock appears to have deterred large international institutional investors. Plans are underway, however, to expand the program to cover Shenzhen.
• In May 2015 the PBC announced that offshore clearing banks and nonresident banks with quotas to access the CIBM could borrow in the onshore interbank repo market to fund offshore RMB business. The limit on financing through repos is tied to the bonds held onshore. Greater access to the onshore market should enhance the efficiency of offshore RMB liquidity management, facilitate participation in the Stock Connect program and offshore RMB securities issuance, and more generally advance the cross-border use of RMB.

• In July 2015 a new channel for two-way flows between Hong Kong SAR and the mainland (Mutual Recognition of Funds) was launched with mutual funds in either location permitted to mobilize investments from the other jurisdiction, subject to regulatory approval and an overall quota.

• In September 2015 the PBC approved onshore issuance of RMB securities by foreign financial institutions in the CIBM. Previously only nonfinancial firms were allowed to borrow onshore through the interbank bond market.

• A sequence of measures has also been introduced to facilitate regional corporate treasury operations. Since February 2014 firms registered in the Shanghai Free Trade Zone have been allowed onshore–offshore RMB and U.S. dollar cash transfers between their parent company, subsidiaries, and affiliates. In November 2014 the program was extended to firms registered in pilot cities across the country. These “cash-pooling” or “cash-sweeping” arrangements are intended to help firms centralize and standardize risk management, debt servicing, and working capital transfers. In September 2015 the PBC relaxed the eligibility criteria and thresholds for participation in these arrangements (based on annual sales turnover and how long the firms have been in operation), to give a larger number of firms the option of streamlining intragroup cash transfers and liquidity management. This move permits greater ease of two-way cross-border flows by enabling closer integration of treasury operations among firms in the same corporate group.

Domestic Financial Reforms

The international appeal of RMB securities ultimately rests on the stability of the domestic financial system along with other attributes such as overall macroeconomic performance and access to information on corporate issuers. As part of a broader structural reform agenda to transition China onto a safe and sustainable growth path, the authorities have initiated financial reforms aimed at achieving more market-based pricing, better alignment of risks with returns, and greater efficiency of credit allocation. Key elements have included the liberalization of interest rates, the introduction of a deposit insurance program, measures to strengthen liquidity management, directives to rein in shadow banking, and steps to ensure the RMB exchange rate better reflects market forces. We describe these measures as follows:
Interest rate liberalization. Over the past decade, the PBC has gradually dismantled controls over commercial bank interest rate settings. Lending rates were completely liberalized in 2013. Starting in 2012 commercial banks were given greater control over pricing deposits through an increasingly wider band of flexibility above the benchmark. In June 2015 nine large banks were permitted to issue negotiable certificates of deposits to households and nonfinancial corporations at market rates, subject to an annual target balance quota. Deposit rates were formally liberalized in October 2015.

Deposit insurance. A nationwide deposit insurance program was established in May 2015. It covers all deposit-taking banking institutions, excluding branches of foreign banks. Deposits up to RMB500,000 (about $80,600) per depositor per bank are insured, which covers 99.6 percent of depositors.

Reserve averaging. The authorities have introduced reserve averaging to facilitate liquidity management. From September 2015 compliance with reserve requirements is based on average ratios over a 10-day period. In addition, banks’ reserve ratios are not allowed to fall more than 1 percent below their reserve requirements on a daily basis. Because the averaging period is relatively short, this measure is unlikely to have much immediate effect on liquidity management, but the period could be lengthened in the future.

Measures to rein in shadow banking. Over the past two years the authorities have taken steps to tighten the regulation and supervision of securities and trust firms, activity in the interbank market, the issuance of high-yield wealth management products, and lending to high-risk sectors of the economy. These measures appear to have had an impact on the composition of credit: the share of intermediation that has been brought back on to bank balance sheets (and is therefore subject to capital and provisioning requirements) has increased significantly in recent months, while off-balance-sheet activity has decelerated sharply.

Toward a more market-determined exchange rate. In August 2015 the PBC modified RMB fixing to make it more market driven. Specifically, this decision aimed at correcting the discrepancy between the reference rate exchange rate (also known as the daily fixing or the central parity) and the market spot rate. In December 2015 the PBC announced that the RMB exchange rate would henceforth reference a basket of currencies in an attempt to de-emphasize the de facto link to the U.S. dollar and introduce greater flexibility in bilateral exchange rates.

Cross-Border Payments Infrastructure and Offshore Liquidity

The third set of measures that have supported the growing international use of the RMB (accompanying capital account liberalization and reforms to strengthen macro-financial stability) has focused on cross-border payments. Starting 2003 the PBC has designated close to 20 “clearing banks” (overseas
subsidiaries or branches of Chinese banks in the mainland) to provide RMB settlement services. From 2003 to end-2012 there were just two offshore clearing banks, located in Hong Kong SAR and Macao SAR. Since then, clearing banks have been opened in major cities and international financial centers across the world, including most recently in New York.

Clearing banks have access to RMB liquidity from the PBC or through their headquarters in China. In addition, they have access to the onshore interbank lending and bond market, and the foreign exchange market. They thus provide liquidity to the offshore markets, while also allowing the PBC to monitor the RMB flows.

A new RMB Cross-Border Interbank Payment System was launched in October 2015. This vehicle provides a streamlined platform for clearing and settling cross-border RMB payments, and will eventually also provide access to offshore participants and thereby support wider international use of the currency.

Bilateral swap lines provide a liquidity backstop to counterpart central banks. Since 2008 the PBC has signed bilateral swap lines with over 30 foreign central banks, cumulatively worth over RMB3 trillion (Table 9.2). The PBC notes that the purposes of each bilateral currency swap arrangement include promoting bilateral trade and direct investment for economic development of the two countries, supporting domestic financial market stability, and other purposes agreed upon by both parties. Although the purpose of foreign exchange intervention is not explicitly included, a counterpart can convert RMB into other currencies in the offshore market and use the funds for purposes it deems appropriate. Swap agreements are effective for a three-year period from the effective date of agreement and the drawing/usage period is up to 12 months.

Inclusion of the RMB in the SDR Basket

In November 2015 the Executive Board of the IMF concluded that the RMB met all the existing criteria to be included—effective October 1, 2016—in the SDR currency basket (Box 9.2.1 in Annex 9.2). With this decision the RMB joined the U.S. dollar, the euro, the Japanese yen, and the British pound, which until then were the currencies in the basket. This decision meant that the IMF’s Board deemed the RMB to be freely usable—that is, used by international members in international transactions and backed by active foreign exchange markets, thus providing some degree of diversification (IMF 2015b). This was a recognition of the progress made not only with RMB internationalization, but also in reforming the Chinese economy. As stated by the IMF’s Managing Director, Christine Lagarde, after the completion of the SDR review “to include the RMB in the SDR basket is an important milestone in the integration of the Chinese economy into the global financial system. It is also a recognition of the progress that the Chinese authorities have made in the past years in reforming China’s monetary and financial systems. The continuation and deepening of these efforts will bring about a more robust international monetary and financial system, which in turn will support the growth and stability of China and the global economy” (IMF 2015c).
RMB INTERNATIONALIZATION AND THE INTERNATIONAL MONETARY SYSTEM

We now consider the implications of the RMB’s internationalization for the international monetary system (IMS) (Annex 9.2 discusses implications for the IMF’s SDR).

RMB Internationalization and the IMS

Since World War II the IMS has been dominated by a few currencies, with the U.S. dollar playing a leading role. Many see in the lack of diversification of global reserve currencies a source of weakness and vulnerabilities for the IMS (IMF 2011, 2016b; Zhou 2009). However, others argue that the dominance of a few currencies has served the IMS well, for instance by providing reliable and high-quality safe haven assets in times of financial stress. Proponents of the more critical view about the current IMS argue that the drawbacks associated with the lack of reserve currency diversification are evident, in, among other things, (1) the liquidity shortages of U.S. dollars at the height of the global financial crisis, which triggered systemic stress in the international banking system with well-known real and financial effects (McGuire and von Peter 2009); (2) the advantage enjoyed by reserve currency issuers in the form of seigniorage revenue and access to cheaper external financing, which in turn allows them to run larger external deficits (Farhi, Gourinchas, and Rey 2011); (3) the spillover effects, excess capital flows, and excessive risk-taking behavior resulting from policies implemented in reserve-issuing currencies; (4) the uphill capital flows resulting from the excess demand for safe global reserve assets in emerging market and developing economies, which undermine fiscal discipline in major reserve currency issuers—a modern manifestation of Triffin’s dilemma (Farhi, Gourinchas, and Rey 2011; Landau 2013); or (5) the use of the reserve currency status to pursue objectives unrelated to the proper functioning of the IMS such as the use of the payments system to enforce economic sanctions, and anti-money-laundering and counterterrorist (AML/CFT) regulations (Katzenstein 2015).

For the proponents of these views, a more diversified system with multiple reserve currencies could ease some of the tensions arising in the current IMS. Such a system would spread the advantages enjoyed by few reserve-issuing countries across competing currencies, strengthen incentives for fiscal discipline in reserve-currency-issuing countries, and mitigate systemic vulnerabilities arising from global spillovers and spillovers of shocks or policy decisions in reserve currency issuers. Thus, a multiple-currency system could facilitate the adjustment of global imbalances and help diversify risks. It is in this context that some believe sustained RMB internationalization could support the stability of the IMS.

However, proponents of the more supportive view of the current IMS express doubts about whether a multiple-currency system would be more robust. For instance, they consider that the financial turmoil in 2008–09 was not just a problem of flight to quality, but rather a flight away from a number of credit markets.
(such as the interbank market) that would have occurred, independently of the number of currencies in the system. Policy spillovers from reserve currency issuers and the difficulties in managing volatile capital flows in non-reserve-issuing countries are seen mostly as a consequence of poor policies across the world rather than a systemic failure. Moreover, in the context of unconventional monetary policies, any negative spillovers are more than compensated by the positive impact of these policies on domestic and therefore global growth. Skeptics of a multicurrency system also question whether a larger number of reserve currencies would reduce the extent of spillovers and spillbacks, or help improve global risk sharing and enhance the resilience of the current IMS. In their view, a system of multiple reserve currencies could fragment global financial markets and liquidity, and

<table>
<thead>
<tr>
<th>Country</th>
<th>Size (RMB billion)</th>
<th>Original Start Date</th>
<th>Duration</th>
</tr>
</thead>
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<tr>
<td>Total (32)</td>
<td>3,139</td>
<td></td>
<td></td>
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<tr>
<td>Asia (13)</td>
<td>1,678</td>
<td></td>
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<tr>
<td>Hong Kong SAR</td>
<td>400</td>
<td>27-Nov-14</td>
<td>3 years</td>
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<tr>
<td>Korea</td>
<td>360</td>
<td>11-Oct-14</td>
<td>3 years</td>
</tr>
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<td>Singapore</td>
<td>300</td>
<td>7-Mar-13</td>
<td>3 years</td>
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<td>Australia</td>
<td>200</td>
<td>8-Apr-15</td>
<td>3 years</td>
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<tr>
<td>Malaysia</td>
<td>180</td>
<td>18-Apr-15</td>
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<td>70</td>
<td>22-Dec-14</td>
<td>3 years</td>
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<td>25-Apr-14</td>
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<td>10</td>
<td>23-Dec-11</td>
<td>3 years</td>
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<tr>
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<td>10</td>
<td>16-Sep-14</td>
<td>3 years</td>
</tr>
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<td>Kazakhstan</td>
<td>7</td>
<td>14-Dec-14</td>
<td>3 years</td>
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<tr>
<td>Uzbekistan</td>
<td>0.7</td>
<td>9-Apr-11</td>
<td>3 years</td>
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<tr>
<td>Other (19)</td>
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<td>European Central Bank</td>
<td>350</td>
<td>9-Oct-13</td>
<td>3 years</td>
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<td>8-Nov-14</td>
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<td>Brazil</td>
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<td>26-Mar-13</td>
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<tr>
<td>Russia</td>
<td>150</td>
<td>13-Oct-14</td>
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<td>Switzerland</td>
<td>150</td>
<td>21-Jul-14</td>
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<td>Hungary</td>
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<td>Belarus</td>
<td>7</td>
<td>10-May-15</td>
<td>3 years</td>
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<td>Iceland</td>
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<td>11-Sep-13</td>
<td>3 years</td>
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<td>2</td>
<td>12-Sep-13</td>
<td>3 years</td>
</tr>
<tr>
<td>Suriname</td>
<td>1</td>
<td>18-Mar-15</td>
<td>3 years</td>
</tr>
<tr>
<td>Armenia</td>
<td>1</td>
<td>25-Mar-15</td>
<td>3 years</td>
</tr>
</tbody>
</table>

Source: People’s Bank of China.
increase global trade and settlement costs, thus undermining the stability and efficiency of the IMS. Therefore, a multiple-currency system could be less efficient and more unstable, as the close substitutability of reserve currencies could result in higher financial volatility.

Irrespective of these views, the increasingly multipolar structure of the global economy—of which China and the RMB internationalization are at center stage—and the ongoing structural shifts, such as the rapid expansion and increasing interconnectedness of global trade and financial markets, could provide conditions for a more diversified system of reserve currencies in the future. In this context, it is important to mitigate risks that could arise under such a system. For sure, the potential for instability highlights the importance of sound and stable policies, especially in reserve-currency-issuing countries. It may also require international coordination to facilitate a smooth transition to a more diversified reserve currency system, including efforts to dampen any accompanying volatility in foreign exchange markets, and ensuring that the global financial safety net is large and broad enough to mitigate potential spillover effects on bystanders (IMF 2016c). In this respect, as we discussed in the previous section, bilateral swap lines similar to the ones put in place between China and other countries provide an important liquidity backstop to counterpart central banks.

CONCLUSIONS

The internationalization of the RMB has advanced substantially over the past decade. Expanding through the offshore market in Hong Kong SAR, the RMB is now widely used as a payment currency for settling China’s cross-border trade and direct investment transactions. While the internationalization of the RMB has been supported through broad reforms, all of which will help move China onto a sustainable growth path, the internationalization of the currency is ultimately market driven. Even as RMB use and trading is increasing, it still has a long road ahead before it becomes an international funding currency and acquires the attributes associated with a global reserve currency. Progress in these areas will ultimately determine its broader role in the international monetary and financial system.

ANNEX 9.1. THE ANALYSIS OF CURRENCY TRADING

This annex provides background on currency trading. The analysis relies on high-frequency trading data (one-second basis) provided by the Electronic Broking Services (EBS), a leading platform for spot interdealer trading for most of the currencies in our analysis. EBS reports the best bid and ask quotes, volume indicators, and the direction of trade. All quotes in the database are transactable, and therefore represent the prevalent spot exchange rate. Moreover, since all dealers on the platform are prescreened for credit and bilateral credit lines and are monitored continuously, counterparty risk is negligible when analyzing the
data set. These features of the EBS data set make it ideal for an accurate estimation and analysis of liquidity in the foreign exchange market. Although we present results for a large number of currencies, the focus is on the relative characteristics of the CHN.

The analysis covers 12 currency pairs: AUD/USD, EUR/USD, USD/CAD, USD/CHF, USD/CNH, GBP/USD, USD/HKD, USD/JPY, USD/MXN, USD/RUB, USD/SGD, and USD/ZAR from June 5, 2014, to June 5, 2015. This sample was extended to October 6, 2015, for the analysis in Box 9.1.

Since the information for each exchange rate is irregularly spaced and to ensure comparability across currencies, the data are processed to construct second-by-second data and volume series, and then aggregated into minute-by-minute data. For every minute, the transaction price of a deal is used to construct one-minute log returns. Observations between 10 p.m. Fridays and 10 p.m. Sundays Greenwich Mean Time are excluded, since only minimal activity is observed during these nonstandard hours. The data are filtered to eliminate any observation that does not reflect the market activity from the ultra-high-frequency data. This information is then used to construct quantity- and price-based liquidity indicators, which capture the extent of currency trading and the costs of executing trades (that is, bid-ask spreads and effective trading costs), and gauge the resilience of a currency (price impact and return reversal).6,7

Liquidity indicators are constructed using the methodology proposed by Mancini, Ranaldo, and Wrampelmeyer in 2013. Returns in turn are multiplied by 10,000 to obtain basis points as the unit of measurement.

**ANNEX 9.2. STRENGTHENING THE ROLE OF THE IMF’S SPECIAL DRAWING RIGHTS**

The RMB can also help strengthen the IMS by enhancing the attractiveness of the IMF’s official SDR (Box 9.2.1). Specifically, the inclusion of the RMB in the SDR currency basket—effective October 2016—diversifies the basket and makes its composition more representative of the world’s major currencies.

The IMF is currently engaged in a broader analysis of the role of the SDR and whether its use can help smooth the functioning of the IMS (IMF 2016a). In addition to examining the broader role of the official SDR, the IMF is also examining alternative SDR concepts, in particular the role of SDR-denominated financial market instruments, or “M-SDRs,” which could be both issued and held by any parties; and that of the SDR as a unit of account.

6The “return reversal” is the reversal to the “fundamental value” of an exchange rate after a large transaction causes the exchange rate to deviate temporarily from its fundamental value.

7Order flow captures the net buy/sell pressure but is not synonymous to trading volume. Order flow refers to signed volume. Trades can be signed depending on whether the deal is initiated by the buyer or the seller. The dealer posting the quote is the passive side of the trade. For example, a sale of 10 units by a trader acting on a dealer’s quotes represents an order flow of –10, while the volume is 10.
In its initial analysis, the IMF has highlighted that M-SDRs reduce foreign exchange and interest rate risk relative to single-currency instruments, but there are some drawbacks and challenges (IMF 2016a). The basket nature of M-SDRs would allow the volatility of returns to be lower than for a similar single currency instrument. However, the SDR represents only one of many possible sets of portfolio weights, and issuers or investors could use existing instruments to replicate their preferred weights at a relatively low cost. There are also challenges to market development, including settling and clearing of M-SDR transactions, dealing with potential basket redefinition, and fostering secondary market trading in order to generate liquidity and market depth.

The need for an IMS that relies on an international reserve currency with a stable valuation is one of the key arguments for PBC Governor Zhou’s support for the SDR (Zhou 2009).

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Taking advantage of the potential benefits of the M-SDR the Chinese authorities have been supporting the issuance of M-SDR bonds, which they also expect will support the process of global reserve diversification and the stability of the IMS. In August 2016 the People’s Bank of China (PBC) approved a program for the issuance of SDR 2 billion in SDR-denominated bonds by the World Bank. These bonds, which are tradable in the Chinese interbank market, had an initial offering for SDR 500 million and a maturity of three years, and are payable in yuan upon maturity. This offering is the first in the past 35 years in the world and is expected to be the first step to set an M-SDR bond market in China.

In addition, the Chinese authorities have been supporting the SDR as a unit of account for economic statistics, financial statements, and pricing of transactions. In April 2016 PBC announced the release of foreign reserve data denominated in SDRs. This should help reduce valuation changes caused by large fluctuations in major currencies (IMF 2016a). In this manner the Chinese add to the handful of instances in which the SDR is used as a unit of account. Data are published in SDR terms in the International Financial Statistics, a number of international and regional institutions use the SDR as a unit of account for their balance sheets, and the lending of some multilateral development banks is denominated in SDRs. The SDR is also used to price some transactions with a multinational character—Suez Canal fees and damages, such as lost baggage claims, incurred by air carriers under the Montreal Convention.

REFERENCES


Nabar and Tovar

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