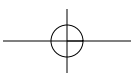
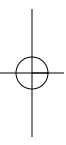
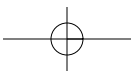
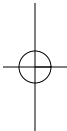
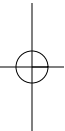




PART II

The Implications





4

Global Implications of the Renminbi's Ascendance

ESWAR PRASAD

In terms of size and dynamism, the economy of the People's Republic of China (PRC) stands out among the emerging markets. It has already become the world's second-largest economy and is now one of the largest contributors to global growth. If the PRC continues on its present growth track, it may soon take over from the United States as the world's largest economy. These developments have led to intense speculation that the PRC's currency, the renminbi, will soon become one of the major international currencies.

The potential for the renminbi to develop quickly into an international currency is not without historical precedent.¹ One important question, however, is whether the PRC economy is ready for this shift in terms of other aspects that matter, besides size. Discussion of the renminbi's ascendance might seem premature, since the PRC has neither a flexible exchange rate nor an open capital account, both of these once considered essential prerequisites for a country's currency to have a major role in global financial markets. Still, the government of the PRC has recently taken a number of steps to increase the international use of the renminbi. Given the PRC's sheer size and its rising share of global gross domestic product (GDP) and trade, these steps are gaining traction and portend a growing role for the renminbi in global trade and finance.

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

In this chapter I briefly summarize some of the steps taken by the PRC government to promote the international use of the renminbi, which in turn is linked to moves to open up the PRC's capital account. I then review the potential implications of these changes for capital flows into and out of the PRC. I also discuss the prospects for the renminbi to become a reserve currency and the implications that could have for international liquidity, the Asian monetary system, and the global configuration of reserve currencies.

Steps toward Reserve Currency Status

A great deal of hyperbole surrounds the renminbi, and some commentators go so far as to argue that its displacement of the dollar as the dominant reserve currency is imminent.² Before evaluating these claims, it is important first to clarify some concepts. Popular discussions of the renminbi's emergence on the international stage tend to conflate three related but distinct aspects of a currency's role in international finance.

1. Internationalization—its use in denominating and settling cross-border trade and financial transactions, that is, its use as an international medium of exchange.

2. 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.

3. Reserve currency—whether the currency is held by foreign central banks as protection against balance-of-payments crises.

A currency's international usage and its convertibility are different concepts, and neither one is a necessary or sufficient condition for the other. The renminbi is a prime example of a currency that is increasingly being used in international transactions even though the PRC keeps capital flows restricted. And of course there are many economies that have fully open capital accounts but whose currencies do not have broad acceptance in global markets. An additional wrinkle is that a fully open capital account does not necessarily imply a floating exchange rate. For instance, Hong Kong, China has an open capital account, but its currency is in effect pegged to the U.S. dollar, through a currency board arrangement.

2. Prasad and Ye (2012) provide a systematic evaluation of the PRC's progress in each of the dimensions of the renminbi's progress as an international currency. Chen, Peng, and Shu (2009) and Subramanian (2011) argue that the renminbi is well on its way to becoming a major, if not dominant, reserve currency. Dobson and Masson (2009), Eichengreen (2011), and Kroeber (2011) offer more nuanced and skeptical views. Angeloni and others (2011) discuss probabilities of alternative scenarios, noting that the renminbi may gain more prominence if the euro does not mount a serious challenge to the dominance of the U.S. dollar. See also Prasad (2014).

It turns out that all three conditions—capital account convertibility, floating exchange rate, and internationalization—are necessary for a currency to become a reserve currency. I begin by considering how much progress the PRC has made in each of these dimensions and how they are interconnected.

Renminbi Internationalization

The PRC has begun to promote the international use of the renminbi, but with its customary cautious and gradual approach. With its sophisticated financial markets and strong supervisory and other institutions, Hong Kong, China provides a perfect testing ground for these policy reforms. Meanwhile, its status as an international financial center means that Hong Kong, China could actively help build up the renminbi's role, at least in Asia.

As early as 2004, personal renminbi business had been initiated in Hong Kong, China when residents were allowed to open deposit accounts denominated in renminbi. In 2007, the PRC began to take a number of additional steps in promoting the international use of its currency, in most cases using Hong Kong, China as the platform:

- Permitting the settlement of trade transactions with the renminbi
- Easing restrictions on cross-border remittances of the renminbi for settlement
- Allowing the issuance of renminbi-denominated bonds in Hong Kong, China and the mainland PRC
- Permitting selected banks to offer offshore renminbi deposit accounts

Given the PRC's rapidly expanding trade volumes, promoting a greater use of the renminbi in trade settlement is a logical first step in the currency's internationalization process. In a relatively short period, cross-border trade settlement in the currency has expanded rapidly. In 2012, trade settlements in renminbi amounted to roughly 12 percent of the PRC's total trade in goods and services.

As with most other data for the PRC, there is a hidden story behind the numbers. For the first couple of years, data for these settlement transactions broken down separately for imports and exports showed that most of the renminbi trade settlement was for transactions that represented imports by the PRC. Payments by PRC importers in renminbi allowed foreign traders to acquire renminbi that were difficult to acquire offshore through other channels. By contrast, there was little settlement in renminbi of the PRC's exports, suggesting that recipients of exports from the PRC either have limited amounts of the currency or are disinclined to reduce their holdings.

One interpretation of this one-sided pattern of trade settlements is that it reflects the desire of foreign traders to bet on the renminbi's appreciation by acquiring as much of the currency as possible. This is another indication of how the PRC's rising trade and financial integration with global markets will make it increasingly difficult to tightly manage the currency's external value.

Settling trade transactions in renminbi requires access to that currency. During 2012, remittances of renminbi used for cross-border settlement in Hong Kong, China averaged roughly US\$35 billion per month, compared to US\$9 billion per month in the second half of 2010. Cross-border renminbi settlement is not confined exclusively to Hong Kong, China, but Hong Kong, China's banks play a dominant role. To support renminbi settlement, Hong Kong, China's interbank market initiated a renminbi settlement system in March 2006, in order to provide a variety of services such as check clearing, remittance processing, and bankcard payment services. Renminbi clearing transactions were virtually zero until mid-2010, when financial institutions in Hong Kong, China were allowed to open renminbi-denominated accounts. Since then, both the volume and value of transactions have increased dramatically. Another major development is the rising issuance of renminbi-denominated bonds, better known as dim sum bonds, in Hong Kong, China. The issuance of dim sum bonds rose sharply during 2007–2011 before leveling off at about CNY110 billion (US\$18 billion) in 2012.

All of these steps are gaining traction, although they are still modest in scale. Still, the initiation and rapid expansion of different elements of the offshore renminbi market signal that the currency is gaining a significant foothold in the Asian region's trade and financial transactions. However, some caveats are in order. First, dim sum bond issuance remains somewhat narrow in scope, in that such issuance is still strongly confined to banking and financial institutions. Second, a large portion of the issuance currently comes from the mainland PRC. Third, various reports suggest that a significant portion of cross-border renminbi settlement is used mainly for cross-border arbitrage between companies in the mainland PRC and their Hong Kong, China subsidiaries. These factors imply that the influence of offshore renminbi use still has some ways to go to reach its full potential.

Capital Account Liberalization and Exchange Rate Flexibility

On paper, the PRC still has a large number of restrictions on the free flow of capital across its borders. Many of the restrictions on both inflows and outflows have been loosened over time, consistent with the active promotion of the renminbi as an international currency. In most cases, constraints on outflows and inflows have been made less stringent rather than being eliminated entirely.³

In recent years, the government has encouraged outflows by corporations and institutional investors (such as pension funds and insurance companies) in order to offset some of the pressures for currency appreciation arising from trade sur-

3. For more details on measures taken by the PRC in recent years to open up its capital account, see Prasad and Ye (2012) and the IMF's Annual Reports on Exchange Arrangements and Exchange Restrictions.

pluses and capital inflows. For instance, in 2009 the government dropped review and approval requirements for outward remittances of funds for direct investment abroad by Chinese corporations and financial institutions. In 2007, the limit on foreign exchange purchases by residents for remittance abroad for personal reasons was increased to US\$50,000 a year, a high limit for an economy where the annual per capita income is now about US\$8,000.

Controls on inflows are also being gradually eased, although many restrictions remain in place. The government has always welcomed foreign direct investment, not just for the money that foreign investors provide but, more important, for the technological and managerial skills they bring with them. Now the government has started allowing approved foreign investors—dubbed Qualified Foreign Institutional Investors (QFIIs)—to buy Chinese stocks as well, although they are limited to a certain amount of investments per year. The upper limit on portfolio investments by individual QFIIs has been raised but still remains at a modest US\$1 billion, and the period for which these investments are “locked up” has been reduced.⁴

Although capital account restrictions are a useful way to evaluate an economy's openness, an alternative approach to do this is to examine the total amount of foreign assets and liabilities relative to GDP. The level of the PRC's gross external position has grown rapidly, roughly tripling in size over the last five years to more than US\$7.5 trillion in 2011. The ratio of gross external assets plus liabilities to GDP is now greater than 100 percent.

In terms of openness levels the PRC's gross external position exceeds those of all the other key emerging markets and also that of Switzerland. Its openness as a share of GDP lags behind the proportions of the reserve currency economies. Among emerging markets, however, the PRC's de facto measure of openness is relatively high, exceeding the levels of countries such as Brazil and India. To the extent that de facto openness is somewhat higher and grows more than the rise in de jure openness, recent steps taken to selectively loosen capital account restrictions do seem to have stoked greater financial flows.

In short, although the PRC 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, but the government is far from allowing the extent of free flow of capital that is typical of reserve currencies.

4. The total quota for QFIIs was raised to US\$80 billion in 2012. The upper limit on portfolio investments by individual QFIIs was raised to US\$1 billion. The period for which these investments are “locked up” and cannot remit their principal abroad ranges from three to twelve months, depending on the type of institution. By February 2013, the China Securities Regulatory Commission had granted QFII licenses to 215 foreign institutions, and the State Administration of Foreign Exchange had approved aggregate quotas amounting to US\$41 billion.

The Exchange Rate Regime

The renminbi was pegged to the dollar from 1997 to 2005. Although it was allowed to appreciate gradually against the dollar starting in July 2005, the currency continues to be managed tightly relative to the dollar. With the onset of the global financial crisis, the hard peg to the dollar was reinstated in July 2008 before being relaxed again in June 2010. By limiting the flow of money, the capital account restrictions help in controlling the value of the renminbi, which now trades on both onshore (CNY) and offshore (CNH; H is a reference to Hong Kong, China). Onshore trade takes place through the PRC Foreign Exchange Trade System, which is in effect managed by the People's Bank of China (PBOC). The offshore trades mostly take place on Hong Kong, China's interbank market. Mainland government regulations mandate these separate markets for the trading of renminbi. The onshore market is subject to the mainland capital account restrictions and the renminbi's value on that market is therefore more under the PBOC's control. In contrast, the offshore market is not subject to direct official control or intervention.

The two rates have moved in lockstep for much of the period since the end of 2010, reflecting the rising integration of the PRC's onshore and offshore financial markets. Before this period, renminbi-related activities in the offshore market were quite limited, which contributed to a marked deviation of the offshore exchange rate from that of the onshore rate—the renminbi 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 renminbi-denominated financial transactions. This includes the approval granted to financial institutions and banks in Hong Kong, China to open renminbi accounts and for Hong Kong, China banks to access the onshore interbank market; activation of a swap line between the PBOC and the Hong Kong Monetary Authority; and a flurry of renminbi-denominated bond issuance activities. These measures have lowered transaction costs for eligible financial market participants to access both markets.

As things stand, however, offshore renminbi trading is still restricted by a variety of regulations that limit market participation to a select group—mostly financial institutions. This sometimes leads to quirky outcomes. For instance, a deviation of the two exchange rates resurfaced temporarily in mid-2011, but this time in the opposite direction—the offshore exchange rate rose markedly above the onshore exchange rate, and this gap persisted for a while. That is, the renminbi was worth more onshore rather than on offshore markets. Such episodes suggest that the integration of the two markets is far from complete.

Despite various moves to make the renminbi's exchange rate more flexible, including a widening of the daily fluctuation band around the previous day's midpoint to plus or minus 1 percent, the renminbi continues to be tightly managed against the U.S. dollar.

Characteristic Capital Account Liberalization

Is the PRC putting the cart before the horse by pushing forward with capital account opening before freeing up its exchange rate?⁵ There is considerable evidence that opening up the capital account without a flexible exchange rate is risky. 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. Another source of risk is that an open capital account often encourages an accumulation of external debt. The PRC's external debt is about 8 percent of GDP, much lower than that of any other major emerging market. The PRC's overall external balance sheet shows that its economy is quite well insulated from external shocks, as net foreign assets amounted to nearly US\$1.8 trillion at the end of 2011. In other words, the PRC has enough foreign assets not only to meet all its external debt obligations but also to more than cover all of its foreign liabilities.

The bigger risks may be domestic ones. The combination of a tightly managed exchange rate and an increasingly open capital account impedes the ability of the central bank to use monetary policy instruments such as interest rates to maintain domestic price stability. Despite its relatively closed capital account, this constraint applies to the PRC 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 become larger. If the United States has low rates while the PRC ought to have higher interest rates to manage inflation, the central bank of the PRC is constrained in raising rates as that may suck in more inflows. Indeed, the expectations of renminbi appreciation that resulted from the tight management of the renminbi's value may have fueled more speculative inflows in previous years.

Moreover, lifting restrictions on capital flows could also be risky for the financial system. Freeing up outflows further while maintaining a cap on deposit interest rates could cause households and corporations to shift deposits out of the banking system. Banking sector earnings are heavily dependent on net interest margins that are mandated by the government through the deposit rate ceiling and, until recently, the lending rate floor (the floor was removed in July 2013). Hence, massive deposit withdrawals can damage banks and strain the entire domestic financial system.

How worried should the PRC be about these risks? The government has enough control of its financial markets and enough resources to back up its banks

5. For a discussion of the issue of sequencing capital account liberalization in the context of the PRC, see Prasad, Rumbaugh, and Wang (2005) and references therein. A burgeoning literature looking at specific aspects of the PRC's exchange rate management and capital account liberalization includes Frankel (2005, 2011), Eichengreen (2011), Lardy and Douglass (2011), Yam (2011), and Yu (2012). Goodfriend and Prasad (2007) discuss the implications of the PRC's exchange rate regime for monetary policy formulation and implementation. For a description of the challenges facing the PRC's financial system, see Lardy (2011) and Prasad and Ye (2012). For a broader discussion of the PRC's economic challenges and the need for reforms, see Prasad (2009, 2011).

that these risks are probably not likely to morph into a full-blown banking or broader financial crisis. Nevertheless, it could take a lot of government money to keep the system stable in difficult times. It is not easy to lay out a crisis scenario where the wheels come off the PRC financial system, but there are many fragilities in the banking system and in the unregulated part of the financial system that are cause for serious concern. A capital account that is becoming increasingly open could bring some of these tensions to a simmer and perhaps even cause them to boil over. So how is the PRC managing the difficult act of getting the sequence of its reforms right?

Gradual Reforms

Some commentators have argued that a piecemeal approach to reforms may not be tenable for the PRC when it comes to issues such as exchange rate flexibility and capital account liberalization. The logic seems simple: making the currency more flexible gradually could lead to a wave of capital flooding into the economy, notwithstanding capital controls, as there would be a tempting opportunity for a one-way bet on the currency's appreciation. Some researchers have also argued that there are good reasons for the PRC to move ahead with exchange rate flexibility before opening up the capital account.⁶

In practice, the government has managed to sustain a gradual approach to making the exchange rate regime more flexible. It has also undertaken capital account opening in small steps but more aggressively than it has moved forward on letting the exchange rate float more freely. The PRC government likes to stay in control and not take any major risks, and it was clear that it wanted to take a similar approach even with respect to large-scale macroeconomic reforms. So how could it implement a gradual opening without losing control of the capital account in a more drastic manner?

By 2007, the renminbi was under enormous pressure to appreciate: the PRC was piling up ever-larger trade surpluses and capital flows were pouring in as a result of the strong desire of foreign investors to participate in and benefit from the PRC growth story. The government was eager to encourage some private capital outflows to offset the capital inflows.

In August 2007, the government unveiled the "through train," a channel that made it easier for mainland retail investors to directly buy equities in Hong Kong, China. Anticipation of large sums of money gushing into Hong Kong, China pushed the Hang Seng stock-market index to a record high in October. The mere prospect that the program might end up being not just a success but a wild success that could result in their losing control of the channel prompted PRC regulators to have second thoughts. They were particularly concerned about the surge

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

in the Hang Seng index and fears that PRC households could lose money if they took the opportunity to invest in Hong Kong, China just when that market was perhaps becoming overvalued. Later that year, the “through train” ran out of track and came to a halt as the government scrapped the plan even before it actually came into full-fledged operation.

The government’s next step to liberalize outflows was a safer approach through an expansion of the Qualified Domestic Institutional Investor (QDII) scheme in 2010. QDIIs include securities firms and asset management companies as well as some large institutional investors such as insurance companies. QDIIs could gather funds from retail investors, pool those funds, and then invest abroad. There was of course some risk involved, but the fact that the QDIIs would presumably have better information and invest more wisely than the average retail investor improved the risk–benefit trade-off. More important, the QDII approach gave the government much more control as to when and how much money could be taken offshore because the QDIIs were given specific investment quotas each year.

This approach to allowing for private capital outflows in a controlled manner 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 approach reduces the need for foreign exchange market intervention, gives private investors a chance to diversify their portfolios by increasing foreign investments, and also prods PRC banks to shape up by increasing competition in the financial system.

Capital Outflows

Even as the country’s economy continued to post relatively good 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 the PRC.

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 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 eurozone debt crisis worsening, investors worldwide seemed 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 the United States but also Japan and Switzerland. In August 2012, the European Central Bank announced its Outright Monetary Transactions backstop for sovereign debt of the eurozone periphery economies. That eased immediate concerns about global spillovers from eurozone problems and capital started flowing back to emerging markets, including the PRC.

These changes in the patterns and timing of flows illustrate one important point—that the PRC is looking like a lot of other emerging markets in terms of what factors lead to capital flowing in or out. There is little basis for panic about the PRC not continuing to receive waves of inflows almost irrespective of global financial conditions. In fact, the period before 2012 might have been more of an aberration as the attractiveness of the PRC growth story seemed to override other considerations related to world interest rates and other financial market conditions.

While gross capital outflows from the PRC have increased significantly over the past 2 years, these are 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 to diversify their savings into foreign investments.⁷ In short, there is little reason (so far) to panic about the PRC's rising capital outflows—they may be a sign of a maturing economy rather than a troubled one.

Global Configuration of Reserve Currencies

With the capital account becoming more open and the currency gaining greater if still modest acceptance in international financial markets, does the renminbi have a future as a reserve currency?

Some economists have argued that the PRC's sheer size and dynamism will lead to its currency becoming a global reserve currency. While the PRC's growth over the last 3 decades is indeed awe-inspiring, it is essential to keep in mind that the PRC has become big and influential before it has become rich and, more importantly, before it has well-developed financial markets or broadly trusted public institutions. After all, if size was the main criterion, it is unlikely that a small country like Switzerland, which has a GDP less than one-tenth that of the PRC, would have one of the main reserve currencies in the world.

There is no clear template for what it takes for a currency to become a reserve currency but, based on historical evidence, there are a few criteria that matter. It is worth considering each of these criteria to see how the PRC 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. The PRC now accounts for 10 percent of world GDP (15 percent if measured by purchasing power parity rather than market exchange rates) and 9 percent of world trade. In 2011–2012, it is estimated to have accounted for about one quarter of world GDP growth.

7. For a discussion of the PRC's outward investment strategy, see Rosen and Hanemann (2009) and Scissors (2011). For more on PRC households' saving behavior, see Chamon and Prasad (2010) and Chamon, Liu, and Prasad (2010).

—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. The PRC is gradually and selectively easing restrictions on both inflows and outflows. The capital account has become increasingly open in de facto terms, but extensive capital controls are still in place.

—Flexible exchange rate: Typically reserve currencies are 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. The PRC still has a tightly managed exchange rate, but it will become increasingly hard to manage as the capital account becomes more open.

—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. The PRC has a lower ratio of explicit public debt to GDP than most major reserve currency economies and has maintained moderate inflation in recent years.

—Financial market development: A country must have broad, deep, and liquid financial markets so that international investors will have access to a wide array of financial assets denominated in its currency. The PRC's financial markets remain limited and underdeveloped, with a number of constraints such as a rigid interest rate structure.

Although the PRC measures up favorably in the first four areas, the last one—financial market development—is likely ultimately to determine winners and losers in the global reserve currency sweepstakes. This is where the PRC falls short and is unlikely to catch up to the United States and other reserve currencies anytime soon.⁸

Getting Financial Markets Ready

Financial market development in the home country is one of the key determinants of a currency's international status.⁹ Historically, each reserve currency has risen on the international stage under unique circumstances and has been spurred by different 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:

8. Angeloni and others (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 (2008).

9. On the importance of home-country financial market development for a currency to become a reserve currency, see Tavlas (1990), Chinn and Frankel (2007), Forbes (2009), and Obstfeld (2011).

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

Without a sufficiently large and liquid debt market, the renminbi cannot be used widely in international transactions. For foreign central banks and large institutional investors to find the currency attractive they will need access to renminbi-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 finance sector to cope with an open capital account and elevate its currency to reserve currency status.

The PRC’s financial system remains dominated by banks, with the state directly controlling most of the banking system. Policies that favor the banking sector relative to the rest of the financial system—including the interest rate structure that sets a ceiling for deposit rates—are detrimental to broader financial market development.

One dimension in which the PRC has made progress is the development of its equity markets. In 2005, reforms were introduced to allow non-tradable shares in Chinese companies to float freely. These reforms had a dramatic effect. Market capitalization and turnover surged immediately thereafter and have grown sixfold since then, while trading volume has increased more than tenfold. 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. In principle equity markets provide renminbi-denominated instruments that can be held by both domestic and foreign investors, but there are still significant restrictions on foreign investors’ participation in these markets. Moreover, PRC stock markets are volatile and prone to concerns about weak corporate governance and shoddy accounting practices, so the country’s deep equity markets may be of limited help in making the renminbi an international currency in the near future.

By most measures, the size and liquidity of the PRC’s debt market lag far behind those of existing reserve currency economies. The stock of domestic debt securities has risen sharply during the last few years but from a very low base. Non-financial corporate debt was practically nonexistent until 2005. The size of the PRC’s government bond market, measured by the market value of the stock of outstanding bonds, was about US\$1.5 trillion as of March 2012, compared with US\$13.3 trillion for the United States. The turnover ratio on government bonds—the ratio of transactions in a given year relative to the outstanding stock of bonds—is about 1 for PRC, compared with a ratio of around 14 for the United States. In addition to the limited turnover, the PRC restricts foreign investors’ par-

ticipation in its government bond markets, which could affect its currency's scope to become a reserve currency. However, the PRC has a relatively high turnover ratio in its corporate bond market, which is consistent with the rapid growth of the corporate debt market, though even that market is still small in absolute terms, at about one-sixth the size of the U.S. corporate bond market.

The PRC's overall domestic debt market is valued at US\$3.4 trillion (as of March 2012, significantly lower than that of the top three reserve currency areas—the United States, the eurozone, and Japan. The U.S. domestic debt securities market has a capital value nearly ten times this size. Interestingly, the quantity of the PRC's outstanding domestic securities is greater than that of the United Kingdom and Switzerland, two reserve currency economies. This suggests that the size of the domestic debt market per se does not necessarily prevent the renminbi from going global.

The PRC's aspirations to make the renminbi a global reserve currency rest in large part on the pace of development of the government debt market. Reserve currencies are expected to issue high-quality and creditworthy government debt or government-backed debt instruments that can serve as a hedge against domestic currency depreciation during a global downturn. The current level of government debt in the PRC is relatively low compared with the debt levels of reserve currency areas and with other major emerging markets. The low level of debt provides more credibility about the government's fiscal and inflation policies, but the limited supply of safe and liquid renminbi-denominated assets works against the renminbi's ascendance to reserve currency status.

Although the absolute size of the debt securities market in the PRC is small from a cross-country perspective, it should not mask the country's rapid growth in these markets. Domestic debt securities, especially corporate sector debt, were at negligible levels only a decade ago. The share of nonfinancial corporate debt in total domestic debt outstanding is also rising, accounting for a share of 20 percent and a value of US\$700 billion in March 2012.

The growth of the PRC's debt markets suggests that the pace of the country's financial market development is consistent with its intention to make its currency accepted as an international currency. Nevertheless, achieving reserve currency status for the renminbi is probably a long way off.

Limited Use in International Financial Transactions

The pace of the internationalization of the PRC'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.¹⁰

10. Data on foreign exchange market turnover, derivatives markets, and currency denomination of international debt securities are taken from the Bank for International Settlements website. See Prasad and Ye (2012) for further discussion of the concepts and data.

Foreign exchange market turnover is a good indicator of a currency's potential for developing into a vehicle currency. The renminbi accounts for less than 1 percent (out of 200 percent, as each transaction involves two currencies) of all turnover in foreign exchange markets. This is true of other emerging markets' currencies as well. The U.S. dollar is dominant in this dimension, accounting for 85 percent of turnover. The five major reserve currencies combined account for 162 percent of total turnover. In terms of the geographic distribution of foreign exchange turnover, however, the PRC has the advantage of having Hong Kong, China as an important financial center for settling foreign exchange transactions. Hong Kong, China accounts for 5 percent of global foreign exchange market turnover (compared to 27 percent for the United Kingdom and 18 percent for the United States). This puts the renminbi on a competitive footing relative to other emerging market currencies in terms of attaining the role of an international currency.

Overall, the spot and derivatives markets for trading in the renminbi remain underdeveloped. The PRC's currency has the lowest spot transactions turnover among all major economies. The renminbi's foreign exchange derivatives trading volume across the board is far smaller than that of the major reserve currencies. The PRC does have a major presence in markets for commodity futures. Based on the number of futures/options traded, three of the PRC's commodity futures exchanges are among the top twenty derivatives exchanges in the world. This is encouraging in terms of broader financial development, but a large commodity derivatives market may be of limited use from the perspective of promoting international use of a currency.

Another indicator of the currency's potential use in international financial transactions is the relative size of international debt securities (that is, debt issued outside the home country) in different currencies of issuance. The existing reserve currencies clearly dominate, with the U.S. dollar and the euro accounting for about 83 percent of outstanding international bonds and notes. The top five reserve currencies combined account for 96 percent of these instruments. Only a paltry 0.1 percent of international debt is denominated in renminbi. The same is true for other major emerging market currencies.

Financial Markets: The Weak Link in the Global Renminbi Project

The main conclusion to be drawn from the discussion so far is that the PRC falls short on many key dimensions of financial market development, and its steps to aggressively promote its currency's international role are likely to be impeded over the medium term by the weaknesses of its financial system.

The PRC'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 important, the structure and quality of debt markets will also need to be changed to fully prepare for a currency used widely in international financial transactions and reserve holdings. With relatively

low external and government debt positions, the PRC'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 that these markets can expand without generating financial instability. Moreover, to satisfy their demand for relatively safe renminbi-denominated assets, foreign investors—both official and private—will eventually need to be given greater access to the PRC's debt markets if the renminbi is to become a true international currency.

Thus far, the use of commercial policies to increase the offshore use of the renminbi has been the centerpiece of the PRC's currency internationalization process. The latest move on this front is a revival of the “through train” concept, but now in the form of an extended QDII scheme (QDII2), which would allow high-net-worth mainland residents to invest directly in Hong Kong, China's equity market using renminbi funds. Although this broad approach has been effective in promoting the renminbi's global role without risking the potential deleterious effects of capital account liberalization, the full potential of the renminbi's international use cannot be realized without more active onshore development. This development would encourage private initiatives to use the renminbi for trade and financial transactions. Ultimately, it will be difficult to fully develop the PRC's foreign exchange and derivatives markets in the absence of substantial capital account liberalization.

The Renminbi and the Special Drawing Right

In March 2009, PBOC Governor Zhou Xiaochuan issued a paper titled “Reform the International Monetary System” on the PBOC's website (Zhou 2009). It laid out the case for special drawing rights (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.

SDRs constitute an international reserve asset created by the International Monetary Fund (IMF). The SDR exists only on the books of the IMF and its value is based on a basket of four reserve currencies: the U.S. dollar, the euro, the yen, and the pound sterling. SDRs are distributed among IMF members on the basis of their quotas at the institution. In effect, these allocations get added to a country's international reserves, since they can be exchanged for “real” hard currencies at the IMF with no questions asked or conditions attached.

The proposal to give SDRs more prominence was seen as a direct shot across the bow of the U.S. dollar. It was also widely interpreted as staking a claim for the renminbi's global importance to be recognized by its inclusion in the exclusive group of currencies in the SDR basket, which does not even include some smaller reserve currencies such as the Swiss franc.

There was considerable discussion in 2011 about a proposal to include the renminbi in the SDR basket. The government of France, during its presidency of the Group of Twenty (G-20) in 2011, promoted this proposal at different 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, President Nicolas Sarkozy of France put the issue squarely on the table, arguing that the SDR basket should be enlarged to include emerging market economies' currencies, starting with the renminbi. The communiqué issued at the conclusion of the November 2011 G-20 Summit in Cannes noted, "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 PRC itself has been more circumspect about the prospects of expanding the SDR basket. Yi Gang, the deputy governor of the PBOC and head of the State Administration of Foreign Exchange, urged the IMF to conduct more research into a shadow SDR and argued that "the IMF should consider including currencies of the BRICS [Brazil, Russian Federation, India, the PRC, and South Africa] countries and other emerging economies when it next reviews its Special Drawing Right (SDR) system by 2015." The BRICS are the world's largest fast-growing emerging economies. But Yi was also quoted as saying that the PRC was in no hurry for the renminbi's inclusion in the basket, because so far the SDR had been only a symbolic currency basket.¹¹

As of 2014, SDRs accounted for about 5 percent of world official reserve asset holdings, so the direct effect of including the renminbi in the SDR basket would not be substantial. The symbolic effect, however, would be substantial, because even the prospect of the renminbi's becoming a part of the SDR basket would encourage central banks around the world to begin adding renminbi assets to their reserve portfolios. Technically, the renminbi cannot become a part of the SDR basket because it is not a convertible currency. However, the notion that a freely usable currency ought to qualify for the SDR basket has been thrust into the debate, based on the argument that the renminbi already meets the criteria for a freely usable currency—it is being increasingly used in trade settlement transactions and in the denomination of deposit accounts offshore.

The IMF's position in 2010 was clear and was summarized as follows in a report on its Executive Board's discussion of the matter: "Directors noted that although [the People's Republic of] 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 renminbi 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 develop-

11. Yi Gang quoted in Lu Jianxin and Kazunori Takada, "China FX Head Proposes Adding BRICS Currencies to SDR," Reuters, May 4, 2011.

ments.” Thus, it appeared that the IMF intended to apply the convertibility criterion strictly, which would be logical because any currency that is part of the SDR basket would presumably automatically be counted as an official reserve currency.

Technically, the SDR basket consists of the four currencies that are issued by IMF members (or monetary unions that include IMF members) that are the largest exporters, and that 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 widely used to make payments for international transactions and widely traded in the principal exchange markets. Thus, the criterion of convertibility is not strictly essential for a currency’s inclusion in the SDR basket. By contrast, the IMF’s own balance of payments definition of a freely usable currency is one that is liquid, convertible, and used for the settlement of international transactions. The composition of the SDR basket is governed by operational rather than technical criteria, so the lack of convertibility is not a hindrance to including the renminbi (or other emerging market currencies) in the basket.

In November 2011, the IMF proposed the following four indicators for evaluating a currency’s potential for inclusion in the SDR basket:

1. Volume of transactions in foreign exchange spot markets
2. Volume of transactions in foreign exchange derivatives markets and over-the-counter derivatives
3. Existence of an appropriate market-based interest rate instrument
4. Currency composition of official reserve holdings

There are no clear benchmarks for any of these criteria, suggesting that the decision as to whether to include a currency in the SDR basket is ultimately a political decision, as long as some minimal thresholds are met on each criterion. The PRC most likely already meets the first criterion and is making progress on the second. Interest rate liberalization would be necessary to meet the third one. The IMF has also suggested that an ancillary indicator could be the number of countries holding a currency in their international reserve portfolios. This would certainly suit the PRC well—a number of countries have begun to publicly discuss the possibility and desirability of holding renminbi assets in their reserve portfolios, even if the actual (or proposed) amounts are small as of now. Regardless of the outcome of this debate on whether the renminbi should be part of the SDR basket, the debate’s mere existence is a powerful signal of the PRC’s ascendance in the world economy.

The People’s Bank of China as a Provider of Liquidity

Despite its underdeveloped financial markets, the PRC is trying to create a new playbook for its currency. Indeed, the renminbi is already making its presence felt on the international stage, in part as the result of policy actions by the government

and in part because of the sheer size and growing role of the PRC in international trade and finance.

Since 2009 the PBOC has moved aggressively to establish bilateral swap lines with other central banks in order to facilitate and expand the use of the renminbi in international trade and financial transactions. The PRC 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-renminbi swaps under which PRC would provide U.S. dollars in exchange for the local currency of the counterparty economy. In other words, the foreign exchange reserves of economies such as the PRC 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 PBOC has signed since 2009. Every single one of the swaps in place now is in terms of local currencies—that is, the PBOC commits to exchange other central banks' currencies for renminbi. By early 2013, twenty central banks had signed such local currency swap agreements with the PBOC (see table 4-1). Eager to expand its renminbi business and with the goal of making London a major center for renminbi-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 PBOC.

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

Another interesting development is that, despite its lack of convertibility, the renminbi is already beginning to play a modest role in a few central banks' reserve portfolios.¹² Chile, Malaysia, and Nigeria are widely believed to have pioneered this trend, starting in the second half of 2011. Official statements and other accounts suggest that other central banks are also considering adding renminbi assets to their reserve portfolios. An interesting point is that these holdings cannot in principle be counted as reserves by the IMF, given the present status of the renminbi's lack of convertibility, but this does not seem to matter for these central banks, because they view renminbi-denominated assets—just as they do other major reserve-currency-denominated assets—as providing insurance against balance-of-payments pressures.

12. Foreign central banks that want to buy PRC bonds for their reserve portfolios have to get permission from the PRC government through the QFII scheme. Sovereign wealth funds have to do the same. In December 2012, in response to strong demand for higher access limits, the State Administration of Foreign Exchange removed the ceiling on inward investments by sovereign wealth funds, central banks, and monetary authorities.

Table 4-1. *Central Bank Swap Arrangements with the People's Bank of China, December 2008–June 2013^a*

<i>Bank</i>	<i>Date</i>	<i>Amount (billion yuan)</i>	<i>U.S. dollar equivalent (billion)</i>
Bank of Korea	<i>12 Dec 2008</i>	180	26.3
	26 Oct 2011	360	56.5
Hong Kong Monetary Authority	<i>20 Jan 2009</i>	200	29.2
	22 Nov 2011	400	62.9
Bank Negara Malaysia	<i>8 Feb 2009</i>	80	11.7
	8 Feb 2012	180	28.6
National Bank of the Republic of Belarus	11 Mar 2009	20	2.9
Bank Indonesia	23 Mar 2009	100	14.6
Central Bank of Argentina	2 Apr 2009	70	10.2
Central Bank of Iceland	9 Jun 2010	3.5	0.5
Monetary Authority of Singapore	<i>23 Jul 2010</i>	150	22.1
	7 Mar 2013	300	48.2
Reserve Bank of New Zealand	18 Apr 2011	25	3.8
Central Bank of the Republic of Uzbekistan	19 Apr 2011	0.7	0.11
Bank of Mongolia	<i>19 Apr 2011</i>	5	0.8
	20 Mar 2012	10	1.6
National Bank of Kazakhstan	13 Jun 2011	7	1.1
Bank of Thailand	22 Dec 2011	70	11.1
State Bank of Pakistan	23 Dec 2011	10	1.6
Central Bank of the United Arab Emirates	17 Jan 2012	35	5.5
Central Bank of the Republic of Turkey	21 Feb 2012	10	1.6
Reserve Bank of Australia	22 Mar 2012	200	31.7
National Bank of Ukraine	26 Jun 2012	15	2.4
Banco Central do Brasil	26 Mar 2013	190	30.6
Bank of England	22 Jun 2013	200	32.6

Source: People's Bank of China.

a. The local currency bilateral agreements cover the years after 2008. The agreements shown in italics have been superseded by subsequent agreements between the People's Bank of China and the relevant countries. The dollar equivalents are calculated using the exchange rate on the date of each agreement. The total amount under the twenty open agreements as of June 2013 is about CNY2.2 trillion, or roughly US\$360 billion based on the June 2013 exchange rate of CNY6.13 per dollar. A number of bilateral agreements signed before 2008, mostly under the Chiang Mai Initiative, are not included in this table. Many of those agreements are not in the local currencies of the relevant countries.

All these moves are modest in size but are symbolically important in signaling the shift in perception about the renminbi's stability and its future role in the international monetary system. The clamor on the part of so many countries—small and large, within and outside Asia—to develop bilateral financial arrangements with the PRC is striking.

One recent bilateral arrangement that is likely to shape finance in Asia is the pact that the PRC and Japan signed in December 2011 to promote the use of their

currencies for bilateral trade and investment flows.¹³ Trade between the two economies amounted to about US\$300 billion in 2010, while bilateral investment flows are estimated to be less than US\$100 billion. Assuming that all these transactions are currently settled in dollars but will eventually be settled in the two countries' currencies, the effect of 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. The PRC has also given permission for the Japan Bank for International Cooperation to issue a renminbi-denominated bond, while Japan has indicated that it will buy some PRC government bonds, presumably to add to its reserve portfolio. Again, these moves are more important symbolically than quantitatively, but they may be setting the stage for more significant developments as the PRC's capital account becomes more open.

Building Bridges to a Rising Power

Why are so many economies eager to sign currency swap lines with the PRC and even hold its currency as part of their reserve portfolios? This may be less a sign of the renminbi's inevitable march to global dominance than 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 the PRC in anticipation of its growing economic power.

Holding renminbi reserves may in effect be a simple way of trying to buy protection from the PRC, which in turn may be better motivated to provide help to a central bank that has helped the renminbi in its early stages of ascendance. The amounts may be small but the symbolism is hard to miss. Central banks around the world are preparing for a future in which the renminbi will start playing an increasingly prominent role in international finance and may ultimately become a reserve currency.

The Renminbi's Impact on the Asian and International Monetary Systems

Promoting the currency's international role is tied up with many complex domestic and geopolitical considerations. As with all of its policies, in this case as well the PRC is working simultaneously toward multiple objectives. For now the PRC will continue promoting the international use of the renminbi using Hong Kong, China as a platform. When the government on the mainland of the PRC determines that its financial markets are finally strong enough to allow for a more open

13. For details on the PRC-Japan agreement, see People's Bank of China, "Enhanced Cooperation for Financial Markets Development between PRC and Japan," press release, December 25, 2011.

capital account, promotion of Shanghai as an international financial center could take precedence, especially as that would fit better with the objective of domestic financial market development.

While using Hong Kong, China as the main staging ground for the internationalization of the renminbi, the PRC government is also working to promote competition among financial centers eager to engage in renminbi business. Regional and international financial centers such as Bangkok, London, Singapore, and Tokyo are all being given opportunities to engage in renminbi transactions. This competition is useful for Beijing to be able to continue its program of internationalizing the renminbi without the usual prerequisite of opening the capital account and providing more renminbi liquidity.

Over the next five years, the PRC is likely to have a more open capital account than it does today but with numerous administrative controls and regulations still in place. This will allow the renminbi to play an increasingly significant role in Asian as well as global trade and finance, but in a manner that allows the government to retain some control over capital flows.

Even with only gradual financial market development, the renminbi is likely to be included in the basket of currencies that constitute the IMF's SDR basket within the next four to five years. The prospect of the renminbi'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 the PRC in internalizing the global repercussions of its domestic policies.

Although the renminbi 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 the PRC 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 pre-eminent status. Rather than catching up to the United States by building up debt, the challenge for the PRC is to develop its other financial markets and increase the availability of high-quality renminbi-denominated assets.

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

Will the Renminbi's Rise Add Stability to Regional and Global Finance?

Economic theory offers no clear guidance as to how many currencies would be best for a world economy that is becoming increasingly closely integrated. The existence of multiple currencies but with just one principal reserve currency has

fueled a number of complications, such as persistent global current account imbalances, suggesting that this constellation may not be the optimal one for promoting the stability of the global financial system.¹⁴

If multiple reserve currencies are indeed desirable, how should one assess the prospects of other currencies being able to compete with the dollar? The history of the rise and fall of reserve currencies has some useful lessons, as discussed earlier. The key is for a country to have public institutions that are trusted by domestic and foreign investors, good economic policies, and well-developed financial markets. 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 were starting as a *tabula rasa*. However, 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 counterargument to the notion that having more reserve currencies is better.

The dollar's dominance allowed the Federal Reserve 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 of the reasons 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 so dependent on dollar liquidity.

This discussion suggests that the renminbi's rising prominence as an alternative to the dollar could add to the stability of the regional and international financial systems. This in turn requires that the PRC's macroeconomic policies and financial market development and regulation be conducive to the PRC's own macroeconomic and financial stability. This favorable outcome will also depend on whether the domestic financial markets and institutional development allow the renminbi to become a credible safe-haven currency. Moreover, as long as the PRC continues to itself demand safe assets through its foreign exchange market interventions, it will not be in a position to become a net supplier of safe assets to the rest of the world.

Summary and Conclusion

The renminbi's prospects as a global currency will ultimately be shaped by broader domestic policies, especially those related to financial market development,

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

exchange rate flexibility, and capital account liberalization. As the country's financial markets become more developed and private investors increase the international diversification of their portfolios, these shifts in the PRC'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 renminbi could also create significant changes in the PRC's economy and the patterns of its capital inflows and outflows.¹⁵

Given its size and economic clout, the PRC is adopting a unique approach to the renminbi's role in the global monetary system. As with virtually all other major reforms, the PRC is striking out on its own path to a more open capital account. This is likely to involve removing explicit controls even while attempting to exercise "soft" control over inflows and outflows through administrative and other measures. Over the next five years, the PRC will have a more open capital account than it does today, but with numerous administrative controls and regulations still in place. This will allow the renminbi to play an increasingly significant role in global trade and finance, but in a manner that allows the government to retain some control over capital flows.

Indeed, as illustrated earlier, the renminbi is beginning to play a role in international trade transactions and also starting to appear in the reserve portfolios of certain emerging market central banks. These shifts, at present more symbolic than substantive, will develop critical mass over time; they have the potential to start transforming the global monetary system.

Liberalization of outflows would not only reduce reserve accumulation but also generate more collateral benefits. It would provide Chinese households with opportunities to diversify their savings portfolios internationally and stimulate domestic financial reforms by creating competition for domestic banks that currently have a captive domestic source of funds. Initiatives to encourage corporate outflows have focused on large state-owned firms and a concentrated set of sectors such as natural resources. For the renminbi to take on a more international role, outflows of foreign direct investment should involve more participation from the private sector.

In this context the issue of sequencing becomes complicated. Absent financial market development, the benefits of capital account opening may be limited even if the risks are low, as in the case of the PRC. As noted earlier, in principle residents can take the equivalent of US\$50,000 out of the country each year, but the absence of well-developed securities markets makes it difficult for most households to take advantage of these opportunities to pursue the international diversification of their savings portfolios.

15. Prasad (2009) argues that capital account opening, especially if accompanied by greater exchange rate flexibility, could also strengthen the PRC's domestic economic structure. It would facilitate financial sector reforms, allowing for a rebalancing of growth away from reliance on exports and investment-driven growth to a more balanced model of growth, with higher private consumption. Also see Kose and others (2009) on the indirect benefits of capital account liberalization.

In this context, the liberalization of inflows is an important part of the overall picture. This liberalization would allow foreign investors to play a role in developing and deepening the PRC's financial markets. Liberalizing portfolio equity inflows typically 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 be beneficial for private savers and borrowers. Other segments of the PRC's finance sector, including the insurance sector, have been dependent 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 instance, an open capital account would catalyze progress toward the PRC's objective of making Shanghai an international financial center.

An interesting issue is whether there is a policy goal short of full capital account convertibility that provides a better risk-benefit trade-off. Yam (2011) has argued that the long-term objective for the PRC 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 has resonated well with the PRC leadership, given that by this definition full convertibility provides a path to an open capital account without entirely ceding control to market forces.

To summarize, the renminbi is already well on its way to becoming a widely used currency in international trade and finance. It is likely that the renminbi will become a competitive reserve currency within the next decade, eroding but not displacing the dollar's dominance.

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