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The Internationalization of the RMB

Opportunities and Pitfalls

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Introduction

An international currency is one that is used in trade invoicing, paying for imports and exports, and denominating internationally traded financial products. Along each of these dimensions, China's currency, the renminbi (RMB), appears to be progressing toward international status. Many policy reforms aimed at increasing the use of RMB in exports, imports, and in central bank swaps of currencies have been announced and implemented in recent years. It is a process of both policy-driven efforts and market-driven forces, and though the internationalization of RMB is still in its infancy, it is a process that seems to be accelerating.

This paper explores policy alternatives for China to push further internationalization of the RMB, which will require changes to Chinese financial and capital markets on both domestic and international fronts. For example, interest rates have to be liberalized. Benchmark financial products, such as government bonds with standard maturities, have to be issued and traded in large volume. Entry of foreign institutions to domestic markets has to be allowed. Restrictions on capital flows inward and outward have to be eased.

The history of finance is marked by crises, most of which occurred soon after major liberalizations in one financial market or another. The liberalization of capital flows to a fast-growing emerging market often results in an overheated economy as capital pours in and a burst bubble when capital flows out. Currency and banking crises can ensue, as experience in Mexico, Thailand, and Argentina has shown. Even advanced countries cannot escape financial crises when reform to regulatory frameworks does not accompany market liberalization, the recipe for disaster that produced the U.S. savings and loans crisis in the 1980s, the Japanese "lost decade" of the 1990s, and the U.S. subprime mortgage crisis that began in 2007. It would be costly for China to repeat these mistakes as it speeds along the path toward internationalizing the RMB, so sequencing of liberalization must be given careful attention.

Despite the risks involved, liberalization is worth the effort. For example, relaxing capital controls and paring away the limits on the entry of foreign institutions could benefit both Chinese and foreign investors. China would be able to form liquid and deep markets for domestic financial products, and it would gain expertise in financial management and product development. Foreign investors, meanwhile, would gain access to businesses in a fast-growing market.

Still, other countries in China's position in the past have been reluctant to embrace reserve-currency status for fear that the accompanying liberalization might prove disruptive. After the collapse of the Bretton Woods regime in the early 1970s, there was an opening for other currencies to assume part of the U.S. dollar's function as the international currency. Obvious candidates were the Japanese yen and the German mark, which were buoyed by the fast growth of their economies and persistent current-account surpluses. But during the 1970s, Japan and Germany were reluctant to liberalize their domestic financial markets and capital controls for fear of excessive capital inflows or outflows. The central banks were wary of the destabilizing (and mostly appreciating) pressure from capital inflows and the reduced control over monetary policy that would accompany increased foreign ownership of their currencies. In Germany, the Bundesbank attempted to slow down internationalization of the German mark until the mid-1980s, though the controls later became less effective.[1] In Japan, the cautious attitude continued until the mid-1980s, but the policy eventually was switched to promote internationalization.[2]

Compared with the moment in Japan's history when it moved from the third- to second-largest world economy, China seems to be much more deliberate—and in some respects aggressive—in seeking the role of international currency. Currently, the special drawing rights (SDR) of the International Monetary Fund (IMF) consist of the U.S. dollar, the euro, the Japanese yen, and the British pound. Several Chinese officials have hinted that the RMB should be included in this basket in the near future. If restrictions on trading RMB by foreigners are completely lifted—that is, if the RMB becomes fully convertible—the RMB could indeed become part of the SDR[3]. The Chinese government is also promoting the use of RMB in trade invoicing and as a settlement currency. The swap network between the People's Bank of China and other developing countries is rapidly expanding.

In sum, China will likely succeed in achieving several criteria of currency internationalization in the next ten years, barring the possible pitfall of a financial crisis. If it is made fully convertible, the RMB could in principle be added to the SDR basket in the IMF's next scheduled review in 2015. Global use of the RMB in trade and in capital markets will continue to rise. However, it may not be until the distant future that the RMB challenges the status of the U.S. dollar as a major international reserve currency. It is more likely that RMB becomes a regional currency in Asia.

What Is an International Currency?

The roles of an international currency are usually defined as analogous to those of a domestic currency: unit of account (for denomination), medium of exchange (for settlement), and store of value (for saving).[4] It is also useful to distinguish how it is used in the private and official sectors. Table 1 shows a matrix with the three roles and two sectors.[5] As will be argued below, the RMB already plays a larger role than is often realized in the international system.

Table 1. Dimensions of an International Currency

	Private Sector	Official Sector
Unit of account	Trade invoicing Denomination of financial products	Being pegged by other countries Use in currency baskets of foreign central banks SDR composition currency Denomination of government bonds
Medium of exchange (settlement)	Trade and financial transactions	Currency circulation abroad; Government financial transactions (such as ODA); central bank swaps; currency intervention
Store of value	Cross-border deposits; cross-border securities	Foreign reserves (of other countries)

Source: Author's creation based on the matrix first proposed by Peter Kenen, "The Role of the Dollar as an International Currency."

THE FIRST ROLE, AS A UNIT OF ACCOUNT

Merchandise exports and imports may be invoiced in an international currency. Trade between two countries may be invoiced in the currency of a third country—for example, when Thailand uses the U.S. dollar for trade with Japan. Kenen emphasizes this point: "An international currency is one that is used and held beyond the borders of the issuing country, not merely for transactions with that country's residents, but also, and importantly, for transactions between non-residents."[6] Currently, the U.S. dollar is the only currency used widely in this way. However, the RMB is starting to be used to invoice trade between China and its commercial partners.

Equally, if a currency is used for denominating securities—especially government and corporate bonds that are marketed abroad—it is being used as a unit of account. Emerging economies often find it difficult to denominate government bonds in their own currency and market abroad because foreign investors are wary of possible devaluations. However, a rapidly growing emerging country whose currency is expected to appreciate, such as China, may face fewer obstacles. Foreign demand for RMB-denominated bonds in Hong Kong has grown rapidly and may be expected to expand further.

In the official sector, to be a unit of account means that a currency is used in the measurement of value for another currency. The best example is the fixed exchange rate regime. Before the Asian financial crisis of 1997–98, many Asian currencies were pegged to the U.S. dollar, making it the international currency in the region. After the crisis, only Hong Kong officially remained as a dollar peg currency with a currency board arrangement.[7] No currency is pegged to an Asian currency, meanwhile, save for the Brunei dollar to the Singaporean dollar.

Now that exchange-rate pegging is less widespread, a currency can serve as an official international unit of account if it is included in a currency basket. The most prestigious, if not the most practical, basket is the SDR of the IMF. When a country in crisis borrows from the IMF, the loan is denominated in SDRs. Four currencies compose the SDR—the U.S. dollar, the euro, the yen, and the British pound. Governor Zhou of the People's Bank of China has hinted that the Chinese RMB should become an SDR currency.[8]

In addition to SDRs, national authorities refer to several implicit baskets in the management of a flexible exchange rate. If a currency is included in a basket that is widely used, then the currency may be regarded as an international currency. The U.S. dollar currently plays this role in the Chinese RMB regime, which can be characterized either as a crawling peg to the dollar or as a basket dominated by the dollar. In fact, Ito showed that when the Chinese yuan is assumed to be a basket comprising the dollar, euro, and Japanese yen, the weighting of the dollar is 96 percent.[9]

Might other countries be using the RMB in a similar fashion? According to Ito, when an Asian currency is regarded as a basket currency, the weight of RMB, after controlling for the U.S. dollar, the Japanese yen, and the euro, is as high as 49 percent for Singapore; the weights for Indonesia and Malaysia are in the range of 40 percent to 46 percent; and the weights for Thailand, Taiwan, and India are in the range of 30 percent to 39 percent.[10] Hence, the Chinese RMB is already influencing other Asian currencies and becoming a regional international currency.

THE SECOND ROLE, AS A MEDIUM OF EXCHANGE

In the private sector, currency is used in payments for trade and financial transactions. Settlement currencies for trade and securities transactions are almost always the same as invoice currencies, although theoretically they can be different from one another.[11] International currencies are also used in official international payments. For example, some Japanese ODA—official lending—has been denominated in yen, contributing to the yen's status as an international currency.

RMB is starting to be used in these various types of payments. It has been used in border trade with cash settlement in the Lao Republic, Vietnam, and Myanmar. In Mongolia, "60% of the cash in local circulation is in renminbi"; that RMB is also accepted in South Korea, Vietnam, Hong Kong, and Taiwan; and that "Cambodia and Nepal announced that the official circulation of the renminbi in their markets is welcome."[12]

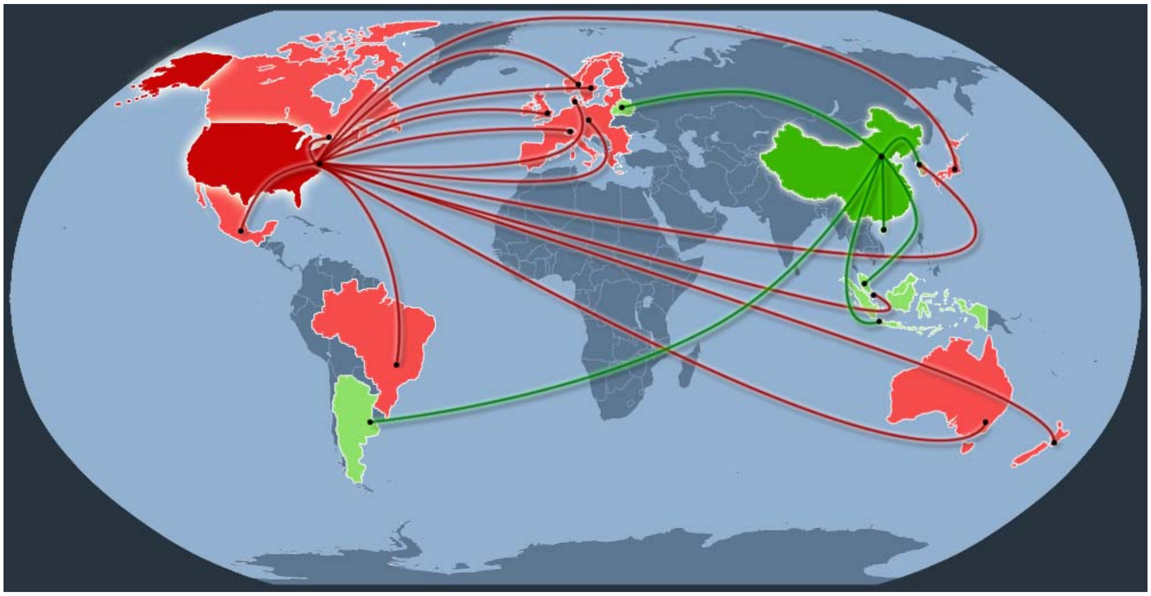
Trade settlements in RMB have been promoted by deregulation of the use of RMB, which started with trade between a few Chinese cities and Hong Kong in 2009.[13] Deregulation was extended to twenty provinces, municipalities, and autonomous regions, including Beijing, in June 2010. On August 23, 2011, another eleven provinces and autonomous regions were permitted to use RMB in cross-border trade settlement and with trading partners anywhere in the world.[14] During the first six months of 2011, RMB-settled trade transactions increased to 957 billion yuan, a thirteen-fold increase over the same period in the previous year.[15] The outstanding balance of RMB deposits in Hong Kong reached 572 billion yuan at the end of July 2011 and is quickly growing.[16]

In the official sector, the RMB has been used in swaps between central banks. There are two kinds of swap arrangements: one in normal times when needs are anticipated, and another in crisis times when ad hoc arrangements are required. China has participated in the first type of arrangement under the auspices of the Chiang Mai Initiative (CMI) among the ASEAN+3 countries. In the CMI (before it was multilateralized), China provided six bilateral swaps, of which three (with Thailand, Indonesia, and Malaysia) involved China providing U.S. dollars in exchange for the currency of another country; one (with the Philippines) involved China providing the RMB in exchange for the Philippine peso; and two (with Japan and South Korea) involved China providing RMB in exchange for Japanese yen and Korean won.[17] The swap arrangement was two-way for Japan and Korea, but one-way for others (only from China to an ASEAN country). RMB was accepted only by Japan, Korea, and the Philippines.

The best example of a swap arrangement during crisis is the dollar swap provided by the U.S. Federal Reserve Bank of New York to G10 countries, other advanced countries, and four emerging countries—South Korea, Mexico, Singapore, and Brazil.[18] Between December 12, 2007, and February 1, 2010, the Federal Reserve committed credit lines to fourteen central banks, including unlimited credit lines to the European Central Bank, Swiss National Bank, Bank of England, and Bank of Japan. Meanwhile the European Central Bank provided euro swaps to four countries (Denmark, Hungary, Iceland, and Poland).

The People's Bank of China (PBoC), for its part, provided crisis swap lines to Argentina (70 billion yuan), Belarus (20 billion yuan), Hong Kong (200 billion yuan), Indonesia (100 billion yuan), Korea (180 billion yuan), and Malaysia (80 billion yuan) in 2009.[19] Even after the crisis abated, the PBoC continued to extend new commitments: in June 2010 to Iceland (3.5 billion yuan), and in June 2011 to Kazakhstan (7 billion yuan).

Figure 1. Swap Arrangements by the United States and China, December 2007–February 2010



Note: American partners are shaded in light red, Chinese partners are shaded in light green.
Sources: Goldberg, Kennedy, and Miu, "Central Bank Dollar Swap Lines," table 2; Aizenman, Jinjarak, and Park, "International Reserves and Swap Lines."

What was the purpose of these swaps? Because none of these countries nor the financial institutions within them had significant RMB liabilities, receiving RMB could not relieve a liquidity problem. But by extending the swaps, the PBoC could boast that it was doing its part to help countries in crisis. Moreover, the swaps promoted trade even if they were irrelevant as liquidity support. The announcement of the swaps was accompanied by a statement explaining that the arrangement was "for the purpose of promoting bilateral trade and investment and strengthening financial cooperation." China's goal was to encourage targeted countries to buy Chinese exports with the RMB credit.

THE THIRD ROLE, AS A STORE VALUE

Acting as a store value involves denominating deposits and securities in the currency and allowing foreign investors to trade them.

Chinese debt securities—typically RMB-denominated bonds—can be issued in China by foreigners or for foreigners. They can also be issued off-shore for foreigners. Currently, issuance of RMB-denominated bonds is limited to international financial institutions, such as the Asian Development Bank.

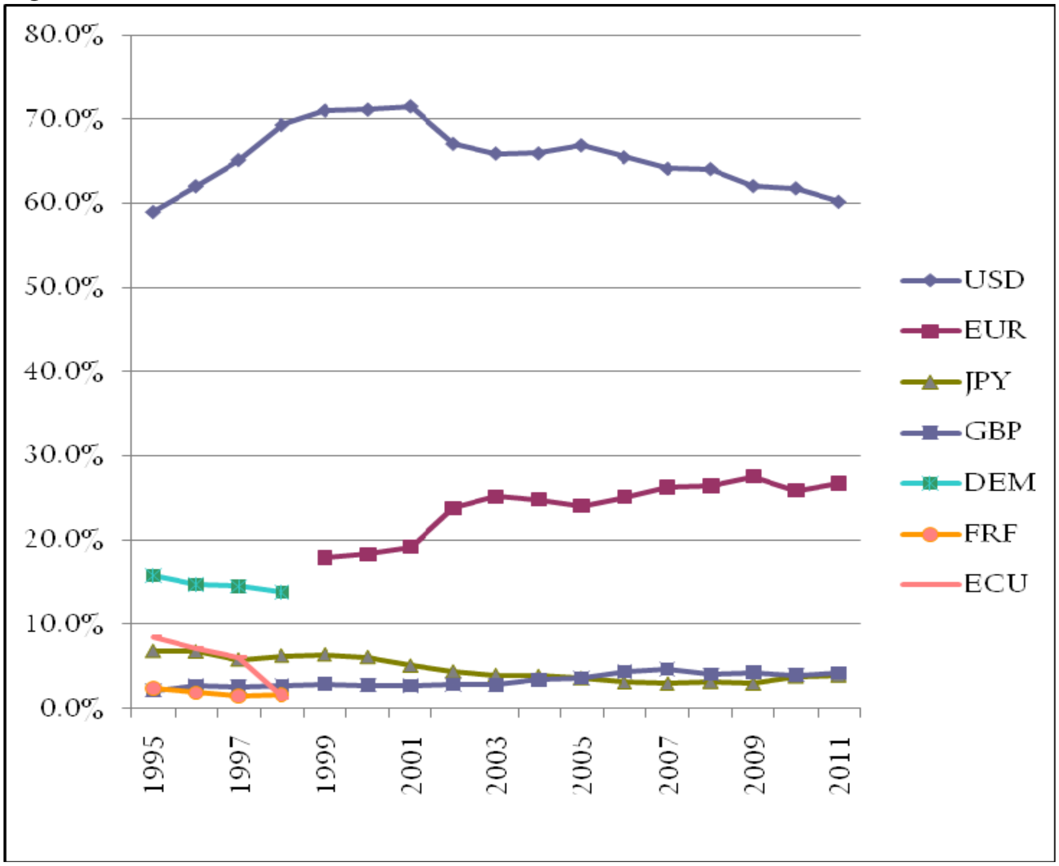
Chinese equity securities exist in three forms. A-shares are the domestic equities that only domestic residents can trade. B-shares are those bought by foreigners, denominated in RMB, and traded in China. H-shares are traded in Hong Kong in the HK dollar. Many companies' shares trade both as A-shares and H-shares. If there were no capital controls, the price of A-shares and H-shares should be the same after conversion at the market exchange rate between RMB and the Hong Kong dollar.

However, prices between A-shares and H-shares are significantly different, which reflects effective capital controls.

Should capital controls be lifted, many arbitrage conditions should hold. The covered interest parity between the forward rates and interest rates of the RMB and of foreign currency with the same maturity with risk class should hold; the onshore interest rate and offshore interest rate of the same maturity should be equalized; the price differentials between the onshore stock prices for domestic investors and the offshore stock prices for foreign investors should collapse (or A-shares and H-shares should be merged). That these arbitrage conditions do not hold shows that foreigners do not have full access to the income streams represented by Chinese securities. They are limited instead to indirect exposures, the value of which will be influenced by speculative expectations among offshore investors about the rate of RMB appreciation, the international appetite for Chinese assets, and so on. Unless capital controls are lifted, offshore Chinese assets are likely to remain volatile and speculative. The RMB will not be used extensively to store value and this dimension of currency internationalization will not be achieved.

In the official sector, a currency can act as a store of value if it is held in the foreign reserves of other countries. Foreign reserves by currency composition are not usually disclosed by central banks, but the IMF's COFER database tracks voluntary reports by IMF member countries. Those reports indicate that the role of the U.S. dollar in the international reserve system has not changed much in recent decades. The euro gained some ground. The British pound and the Japanese yen were a distant third and fourth.

Figure 2. Reserve Currencies, 1995–2011



Source: IMF Statistics department COFER database and *International Financial Statistics*, http://www.imf.org/external/np/sta/cofer/eng/.

1. This graph is based on reserves data, whose currency composition has been identified.

2. Countries with sizable reserves either joined (began reporting) the sample or left (stopped reporting) the sample in 1996 and 1997.

3. 2011 is for the second quarter and the number is preliminary.

Note the increase in share of "other" reserve currencies from 1.6 percent to 3.1 percent. How much RMB is included in this 3.1 percent is anyone's guess, but China's heavy capital controls and a lack of safe and liquid RMB-denominated assets have discouraged central banks from accumulating RMB in any significant scale. China seems to be pushing to change this, though—most recently, Nigeria agreed to hold RMB as a part of its foreign reserves after an agreement with the People's Bank of China.[20]

Benefits and Costs

The benefits of having an internationalized currency are sixfold. Consider them from China's point of view.[21]

First, under an internationalized RMB regime, Chinese importers and exporters will realize large gains from the elimination of exchange-rate risk as they begin to invoice and settle trade in their own currency. Trading partners will have to be persuaded to accept RMB invoicing. This should be relatively easy to negotiate with trading partners from countries with less internationalized currencies. The same acceptance may be harder to secure from trading partners in advanced countries.[22]

Second, when firms and financial institutions can borrow from abroad and foreign companies and institutions can issue bonds in China, the Chinese domestic bond markets—and financial markets in general—will become deeper. Arbitrage between domestic and foreign (offshore) markets will become possible and financial markets will become more efficient (for example, narrower market-making spreads, saving money for investors, and more stable pricing resulting from deeper markets with more liquidity). This will help domestic investors and borrowers benefit from the financial system in the form of higher returns and lower borrowing costs.

Third, the Chinese government as well as private-sector financial institutions will enjoy lower borrowing costs without exchange-rate risk because they will be able to issue domestic currency-denominated bonds. China will be able to avoid the currency mismatch that has been a problem in many emerging-market crises in the past. China will still need to be wary of borrowing too much in domestic currency–denominated bonds, a temptation to which many advanced economies have succumbed in the past.

Fourth, if large countries issue RMB-denominated bonds, Chinese authorities can hold those bonds without currency risk. This would represent a significant improvement over holding dollar-denominated U.S. government bonds that may lose value as the RMB appreciates against the U.S. dollar.

Fifth, as RMB circulate abroad, Chinese authorities will enjoy seigniorage. This privilege will not come without risks, though. RMB held abroad could flow back to the domestic market in a rush, causing an unwanted boost to the money supply and loosening the central bank's grip on monetary policy. Or offshore currency could be used to bet against the currency in the spot/forward market—such speculation is what helped to take down the Thai baht in 1997. But because the Chinese economy is relatively large compared to the rest of the world, the danger from volatile cross-border capital flows is minimized. A currency crisis due to large capital flows is unlikely for China.

Last but not least, the political economy benefits cannot be underestimated. Having an international currency can enhance the status of the country in international institutions.

Table 2 summarizes the benefits and costs, in the same categorization as Table 1.

Table 2. Benefits and Costs of Becoming an International Currency		
	Private Sector	**Official Sector**
Unit of account	Trade invoicing → Exporters and importers can avoid exchange rate risk Financial products denomination → Domestic financial markets become deeper and efficient	Being pegged by other countries and/or being included in other's currency baskets → Political prestige; but cannot depreciate unilaterally when needed SDR composition currency → Political prestige Denomination of international government bonds → lower borrowing costs without exchange rate risk (denying impossible trinity); but could borrow too much
Medium of exchange (settlement)	Market transactions; Trade payment and settlements Payments in financial transactions → Chinese borrowers can avoid liquidity risk; Chinese borrowers and lenders can save foreign exchange transaction costs	Currency circulation abroad → seigniorage Government financial transactions (such as ODA) → official lending without using official reserves central bank swaps → official assistance without using official reserves; intervention currency → ease of intervention operation
Store of value	Cross-border deposits; cross-border securities investment	Foreign reserves (of other countries)

Source: Author's compilation

Roadmap

To recap the progress of the RMB internationalization, Table 3 presents a schematic of what has been achieved and what remains to be achieved.

Table 3. Progress of Internationalization of the Chinese RMB

	Private Sector	**Official sector**
Unit of account	Trade invoicing → the government encourages this for Chinese companies Financial products denomination → limited	Being pegged by other countries → No Being included in other's currency baskets → Yes (Ito (2008, 2010) and Chen, Peng, and Shu (2009)) SDR composition currency → China demands this of the IMF Denomination of international government bonds → limited
Medium of exchange (settlement)	Market transactions; Trade payment/settlements → As the government allows (from 2009 pilot program to 2011 extension), it is rapidly increasing, although the ratio is still low. Payment, financial transactions → Overall, very low	Government financial transactions (such as ODA); → limited central bank swap; → increasing intervention currency of third country → no
Store of value	Cross-border deposits → limited cross-border securities investment → limited	Foreign reserves (of other countries) → very limited.

Source: Author's compilation

As China has pushed the RMB toward internationalization, foreign markets have responded favorably to invoicing in, settling in, and holding RMB. However, China must take several important steps for the RMB to become a genuine international currency.[23] The most important of these is to lift capital controls completely. However, to lift capital controls safely, it is important to prepare domestic financial conditions, and some conditions for an open capital account in turn demand their own preparatory preconditions. Working back from the goal of capital account liberalization, we can determine a number of steps that China must take to internationalize its currency successfully.

Before lifting capital controls, domestic markets must be deepened. Otherwise, capital flows that may be large compared with China's current domestic market size could upset monetary policy or systemic stability (or both), just as large capital flows overwhelmed the small financial markets of many Asian countries in 1997 and precipitated a currency crisis. China may avoid this "whale in a small pond" problem because it potentially has a large domestic market. But to realize that potential—to correct the current mixture of a large economy with a shallow financial sector—China needs to allow free entry into its financial sector by foreign firms and to deregulate interest rates.

Domestic market liberalization should be preceded by enhancement of the supervisory and regulatory regime so that the domestic market can truly be independent of the government. The supervisory agency should treat financial institutions fairly and be capable of applying modern supervision techniques in consultation with authorities of other countries. Otherwise, a bubble may occur as some financial institutions take excessive risk relative to their capital. This was the problem that contributed to the U.S. savings and loans crisis in the 1980s and the Japanese banking crisis in the 1990s.

Creating the independent supervisory agency requires several supporting institutions and arrangements. The government should reduce its share in the ownership of commercial banks, because it can be difficult for a government supervisory agency to deal objectively with a government financial institution. The travails of Fannie Mae and Freddie Mac, the U.S. government–chartered mortgage finance companies, come to mind as examples, though there are many others in developing countries. Equally, local governments should make explicit how much responsibility they bear over joint ventures for local development. Implicit guarantees often end up causing market crises and sudden flights of foreign capital. Similarly, a credible deposit insurance system needs to be designed and implemented.

In addition to allowing foreign financial institutions into domestic financial markets, China needs to deepen its capital markets by issuing government bonds of various maturities. This is essential because government bonds are benchmark safe assets, and many portfolio theories and practices require the existence of safe assets. Other bonds, such as corporate and mortgage-backed bonds, cannot be priced properly without the benchmark of safe assets; investors cannot construct an optimal portfolio if there are no safe assets. Government bonds at various maturities are needed to promote corporate bond markets, which in turn are crucial to preventing overreliance on the banking system, which is a common feature in Asia.

Moreover, having a yield curve of government bonds with various maturities, say, three-month, six-month, one-year, two-year, three-year, five-year, and ten-year, offers investors the opportunity to express preferences between assets of different duration. Given this choice, investors who feel uncomfortable with particular maturities (say, ten years) may still stay in the country but switch to different maturities (say, one year). This is one way to mitigate sudden capital flight.

At the same time, offering a choice of bonds of different maturities allows investors to determine the slope of the yield curve and reveal the term premium, which contains information about business conditions, inflation expectations, and interest rate risk. A market-determined yield curve can convey signals from which policymakers may benefit. For example, if investors are shifting their portfolios to the short end of the curve, making the yield curve steeper, that is a warning sign that investors regard the long-term prospect of the country as riskier than before. This could act as an early warning of trouble before capital flight sets in, and allow policymakers to adjust policy and so head off trouble.

In moving toward a market-determined yield curve, China might be wise to liberalize long-term assets first and short-term assets last. This general rule arises from the lessons of the emerging market crises that afflicted Latin American and Asian countries, in which governments, banks, and corporations relied too much on short-term borrowings for their long-term investment and could not roll over their debts once foreign capital started to flee. The so-called Greenspan-Guidotti rule states that emerging market economies with short-term external debts (denominated in other countries' currencies) exceeding the amount of foreign reserves are in a risky position—indeed, Mexico in 1994 and Thailand, Indonesia, and Korea in 1997 all had short-term liabilities exceeding their holdings of foreign reserves. But China's pool of foreign reserves is large enough to provide a protective buffer against this risk, so this long-before-short general rule of liberalization may not strictly apply. China might be able to open up its short-term and long-term markets without major problems if policymakers choose to liberalize both ends of the yield curve simultaneously.

Three Visions of the Future

Let me explore three possible paths for China's efforts to internationalize the RMB.

The described reform program represents the best scenario for moving toward RMB internationalization. Financial reform should begin with domestic reforms: to liberalize various interest rates, to allow entry of foreign financial institutions, to issue government bonds with representative maturities, and to allow bond issues to residents and nonresidents. Domestic reforms should be followed by external reforms. Capital controls on equity investment and bond investment by foreigners should be abolished, as well as controls on residents' investment abroad. The exchange rate regime should be shifted to a managed float with a wide no-intervention zone. The regime shift can be accompanied by one-time revaluation of the yuan/dollar rate, if the current exchange rate is deemed undervalued. The internationalization of the RMB could then be promoted without many obstacles.

However, a second-best scenario can be described by extrapolating the recent trend to push the internationalization of the RMB while sticking with a slow-paced reform of domestic financial markets. Recent policy efforts have focused on current account transactions, which advance internationalization of the RMB along the unit-of-account and medium-of-exchange dimensions. But as further reforms are delayed, Chinese macroeconomic management will face difficulty. As RMB holdings accumulate offshore, some may leak back into China's economy. This domestic excess liquidity may generate economic overheating that will threaten financial market stability. The overheating could be stopped by allowing the RMB to appreciate, but this may run counter to China's commitment to its export sector. Alternatively, China could counter overheating by raising interest rates. That will, in turn, generate unemployment, particularly in the nontradable sector.

In short, the internationalization of the RMB will hit the limit unless supporting financial reforms start relatively soon. In particular, if the ambition is to expand the RMB's role as an international store of value, financial sector reforms are necessary. Without these reforms, China will encounter friction with trading partners. Already, China's exchange rate policy is criticized by other countries. If those countries were holding RMB-denominated assets, accusations of "currency manipulation" (justified or not) would grow louder. However, if the use of RMB becomes widespread, and if it is traded, not only by Chinese financial institutions but also by foreign ones, then no criticism would emerge.

A third scenario is that the drive for internationalization will slow down as the side effects become more apparent. For example, if external liberalization produces volatile capital inflows and outflows that make domestic monetary policy difficult, it may increase pressure to slow down internationalization and reforms.

Concluding Remarks

If the Chinese economy grows in the next few decades as rapidly as it has during the past two, China will overtake the United States in GDP terms by the mid-2020s, and, as history shows, having a large domestic economy helps a country's currency become an international currency.[24] But size is not enough—if China wishes to internationalize its currency, its government and central bank must deregulate and liberalize capital flows and trading of RMB. However, given the current status of RMB and financial markets in China, a careful sequencing of internal and external liberalization is recommended.

First, domestic markets should become deeper and more efficient. To maintain financial markets, it is important to have a large number of heterogeneous market participants so that when some investors are selling, others are there to buy. Allowing foreign institutions to participate in the domestic market is one way to have heterogeneous participants. Having investors with diverse characteristics, some with short-term perspectives and others with long-term perspectives, is another way. Deregulation that allows different players into financial markets should be an important policy agenda. Liberalization of RMB invoicing and settlement has been pushed since 2009 with rapid pace. This should continue with accelerated pace, since deregulation in trade-related transactions is hardly risky for the financial system.

After nurturing the domestic money and capital markets to become deep and efficient, the exchange rate regime should be changed to one with a more market-based approach. Increasing the flexibility of the exchange rate is also important to give foreign investors confidence in the currency. Keeping the exchange rate too undervalued may result in an overheated domestic economy.

Domestic reform and subsequent exchange rate flexibility should be followed by abolishing various capital controls, first for medium-term to long-term financial assets, and then for short-term assets. Important capital controls to lift include those on foreigners issuing assets and debts denominated in RMB, holding RMB offshore, and trading in offshore markets.

Even when all these steps have been taken, there is no guarantee that the currency becomes widely used in the global or regional market. The Japanese yen, for example, completed most of its steps toward liberalization by the mid-1990s (under the Big Bang), and remaining controls were lifted by the mid-2000s. Until 2010, the Japanese economy was the second-largest economy, so why didn't the Japanese yen become an international currency that is held in foreign reserves and used in trade invoicing in Asia? One of the disadvantages Japan had was the widespread dollar peg that, until 1997, Asian countries kept because they viewed the volatility (mainly appreciation) of the Japanese yen as an unattractive feature. Moreover, the Japanese firms that went global earlier on became content with dollar-denominated trade. Some of them developed sophisticated currency risk management, whereas others expanded foreign operations.[25] Could China overcome what Japan could not surmount?

The probability that China will succeed in RMB internationalization is much higher than it was for Japan. There are several reasons for this. First, China's economy is bigger, and it will be bigger still by the time it completes liberalization of the RMB. Second, China is already promoting internationalization, whereas Japan was reluctant when it was at roughly the same stage in its economic development in the 1970s. China realizes the huge benefits from having an international currency and is much more determined to make it happen. However, the internationalization of the RMB may succeed more regionally than globally. After all, the euro does not seem to have challenged the U.S. dollar status. Rather, it has remained a strong regional international currency.[26] The RMB may likewise achieve a regional international status within Asia, but not really upset the U.S. dollar globally. There is a strong inertia in using a single global international currency.[27]

Third, there is already a trend toward Asian neighbors following the Chinese RMB to manage their exchange rates.[28] This is natural because China has become the top trading partner for many Asian countries. They are happy to hold RMB assets and liabilities to limit the volatility of their currencies with respect to the RMB. It will not be long before a Chinese RMB bloc emerges in Asia.

Endnotes

1. For the description of the German reluctance, see Frank Moss, "The Euro: Internationalised at Birth," presented at the BoK-BIS Seminar on Currency Internationalisation, March 19–20, 2009. He also argues that although the euro was an international currency from the beginning of its existence, the degree of international use of the currency was basically the sum of the legacy currencies, most notably the German mark and the French franc.
2. Shinji Takagi described the process well ("Internationalising the Yen, 1984–2003: Unfinished Agenda or Mission Impossible?" presented at the BoK-BIS Seminar on Currency Internationalisation, March 19–20, 2009). According to him, Japan was quite reluctant to internationalize the yen throughout the Bretton Woods period and until the mid-1980s. Then policy was switched to promote yen internationalization in the late 1980s and pushed throughout the 1990s. However, the result was not so successful and the efforts were abandoned by 2003.
3. Bénassy-Quéré and Capelle argue that it has been premature to include the renminbi in SDR, but, given the rapid growth and size of the Chinese economy, waiting too long to include it in SDR may result in a discontinuity of the SDR's value upon the renminbi's addition ("On the Inclusion of the Chinese Renminbi in the SDR basket," CEPII draft, July 2011).
4. For an overview, see Peter Kenen, "The Role of the Dollar as an International Currency," Occasional Papers No. 13 (New York: Group of Thirty, 1983); "Currency Internationalisation: An Overview," presented at the BoK-BIS Seminar on Currency Internationalisation, March 19–20, 2009.
5. Ibid. This framework has been used by several authors. See Menzie Chinn and Jeffrey Frankel, "Will the Euro Eventually Surpass the Dollar as Leading International Reserve Currency?" NBER Working Paper No. 11510 (Cambridge, MA: National Bureau of Economic Research, August 2005); Haihong Gao and Yongding Yu, "Internationalisation of the Renminbi," presented at the BoK-BIS Seminar on Currency Internationalisation, March 19–20, 2009. However, both authors include "invoicing trade and financial transactions" under "medium of exchange." This does not match the usage of "invoicing" in the literature on "invoicing currency." Invoicing is the same as denomination so that it should be under "unit of account." Medium of exchange is the currency of actual payments and settlement.
6. Kenen, "Currency Internationalisation," p. 1.
7. The currency board arrangement is the central banking system where domestic monetary base is created against the foreign reserves of the central bank.
8. Xiaochuan Zhou advocated the reform of SDR as a part of international monetary system reform ("Reform the International Monetary System," *BIS Review*, April 2009, www.bis.org/review/r090402c.pdf). Although he did not mention RMB by name, it was implied that China wanted RMB to become an SDR currency: "The basket of currencies forming the basis for SDR valuation should be expanded to include currencies of all major economies, and the GDP may also be included as a weight." Because China was the third-largest economy by GDP at the time of his writing, and would become the second-largest in 2010, it was clear that Governor Zhou thought that RMB should be an SDR comprising currency. In this essay, he proposed a much wider use of SDR as a supranational currency to be used in private sector transactions as well as official transactions.
9. Ito ran the Frankel-Wei form of regression for the period of July 4, 2005, to December 31, 2008 ("China as Number One: How About the Renminbi?" *Asian Economic Policy Review*, vol. 5, no. 2, 2010, tables 4 and 5). Weights of the dollar were found to be 96 percent, euro 3 percent, and yen 1 percent. Similar regressions were put to test in Hongyi Chen, Wensheng Peng, and Chang Shu, "The Potential of the Renminbi as an International Currency: What We Can Learn from International Experience," presented at the BoK-BIS Seminar on Currency Internationalisation, March 19–20, 2009.
10. Ito, "China as Number One," table 5. Korea, 0.28, and the Philippines, 0.14, were statistically not significant
11. The following example illustrates a case where the invoice and settlement currencies are different. Suppose that exports are contracted as 1 million RMB. But on the date of payment, the recipient can request that the money should be sent in the U.S. dollar to the bank account in the New York, converted at the prevailing exchange rate on the day.
12. Gao and Yu, "Internationalisation of the Renminbi."
13. The "pilot program" announced in April 2009 had two types of coverage of region and trading partners. Firms in Shanghai, Shenzhen, Guangzhou, Zhuhai, and Dongguan were allowed to invoice and settle their trade in RMB with Hong Kong and Macau firms. Firms in Yunnan and Guangxi were allowed to trade with firms in ASEAN.
14. See "News," People's Bank of China, August 23, 2011, http://www.pbc.gov.cn/publish/english/955/2011/20110830143601145186005/20110830143601145186005_.html.

15. Nikkei Veritas, September 18, 2011 (in Japanese).

16. Ibid.

17. For the size of the swap and other features, see Gao and Yu, "Internationalisation of the Renminbi," table 3, and the Ministry of Finance, Japan, http://www.mof.go.jp/english/international_policy/financial_cooperation_in_asia/regional_financial_cooperation/index.htm#CMI.

18. For details of arrangement chronology and actual terms of lending on the arrangements, see Linda S. Goldberg, Craig Kennedy, and Jason Miu, "Central Bank Dollar Swap Lines and Overseas Dollar Funding Costs," *FRBNY Economic Policy Review*, May 2011, table 2.

19. These countries and amounts are taken from Joshua Aizenman, Yothin Jinjarak, and Donghyun Park, "International Reserves and Swap Lines: Substitutes or Complements?" NBER Working Paper No. 15804 (Cambridge, MA: National Bureau of Economic Research, March 2010).

20. Reported in the *China Daily* online, September 6, 2011: "Nigeria plans to invest 5 percent to 10 percent of its foreign exchange reserves in China's currency, the renminbi (RMB) or yuan, the country's central bank governor Lamido Sanusi said on Tuesday."

21. Similar arguments are mentioned in Kenen, "Currency Internationalisation"; Gao and Yu, "Internationalisation of the Renminbi"; Hans Genberg, "Currency Internationalisation: Analytical and Policy Issues," presented at the BoK-BIS Seminar on Currency Internationalisation, March 19–20, 2009; Chen, Peng and Shu, "The Potential of the Renminbi"; and Yung Chul Park and Kwanho Shin, "Internationalisation of Currency in East Asia: Implications for Regional Monetary and Financial Cooperation," presented at the BoK-BIS Seminar on Currency Internationalisation, March 19–20, 2009.

22. In the literature, it is established that the advanced country's currency is used in trades between an advanced country and a developing country. For the Grassman's law on trade invoicing, see Takatoshi Ito, Satoshi Koibuchi, Kiyotaka Sato, and Junko Shimizu, "Why Has the Yen Failed to Become a Dominant Invoicing Currency in Asia? A Firm-Level Analysis of Japanese Exporters' Invoicing Behavior," NBER Working Paper No. 16231 (Cambridge, MA: National Bureau of Economic Research, July 2010).

23. The (lack of) progress can be compared with the euro experiences and Japanese experiences. See Moss, "The Euro"; Takagi, "Internationalising the Yen."

24. See Ito, "China as Number One." In "The Potential of the Renminbi," Chen, Peng and Shu emphasize that size matters.

25. For detailed analysis of firms' invoicing behavior, see Ito et al., "Why Has the Yen Failed."

26. Moss, "The Euro."

27. For the discussion on the number of international currencies that may coexist, see Genberg, "Currency Internationalisation."

28. Ito, "China as Number One"; Chen, Peng, and Shu, "The Potential of the Renminbi."

About the Author

Takatoshi Ito is professor at the Graduate School of Economics and the Graduate School of Public Policy at the University of Tokyo. He has taught extensively both in the United States and Japan, including at University of Minnesota, Columbia Business School, Harvard University, and Hitotsubashi University.