

DOES INTERNATIONALIZING THE RMB MAKE SENSE FOR CHINA?

Yukon Huang and Clare Lynch

The last time a Chinese currency was used as an international medium of exchange was four centuries ago, when China's share of global GDP in PPP terms was nearly 30 percent (about twice its current level), the country was a major global trading power, and Chinese copper coins circulated throughout East Asia to India and even beyond (Horesh 2011). In the following centuries, silver dollars and paper bills replaced copper coins and China's share of external trade declined. Now, with China's return to the position of largest global trader and second-largest economy in the world, it is not surprising that discussion of internationalizing China's currency has resumed.

Since the onset of the 2008 global financial crisis, China has taken a series of steps to promote internationalization of the renminbi (RMB). Some observers have taken the financial crisis and weak recovery of Western economies as an argument that the RMB should in the foreseeable future equal, or eclipse, the dollar as the dominant international reserve currency. But despite a number of significant initiatives to increase use of the RMB externally, RMB internationalization is still in its early stages.

The starting gun for serious discussion of RMB internationalization can be dated to March 2009, when People's Bank of China Governor Zhou Xiaochuan called for reform of the international

Cato Journal, Vol. 33, No. 3 (Fall 2013). Copyright © Cato Institute. All rights reserved.

Yukon Huang is a Senior Associate, and Clare Lynch is a Junior Fellow, at the Carnegie Endowment.

reserve system. Zhou (2009) drew attention to weaknesses of the current international monetary system, which he argued is too reliant on holding sovereign currency reserves (i.e., the U.S. dollar). He urged expanding use of the IMF's Special Drawing Rights and proposed a stronger international role for the RMB in the valuation of SDR.

Zhou's call to reform the international monetary system has since expanded into a broader discussion of internationalizing the RMB. There is now a huge body of literature on RMB internationalization. The focus is on China's progress in RMB internationalization and includes relatively abstract discussions of the merits of liberalization in general and noncontroversial recommendations for strengthening financial markets and institutions.

What the discussion often lacks is a more discriminating examination of *why* China is pursuing currency internationalization and an evaluation of how internationalization might actually affect policy-making and the Chinese economy. More attention needs to be given to China's longstanding development objectives in relation to the reasons put forth for internationalization—both valid and misplaced in some cases. While internationalization carries long-term benefits such as heightened prestige and influence, greater say in the international system, and improved trade efficiency, there are also increased risks—namely, more volatility, increased exposure to external shocks, and potential loss of control over domestic monetary policy.

A critical examination of these objectives along with the necessary preconditions shows that internationalization is neither feasible nor necessarily beneficial in the short term, as was recognized by Japan and Germany when they were considering this possibility decades ago. Ironically, if China were able to miraculously complete internationalization within the next few years, this could actually run counter to the aims of Chinese policymakers, who tend to be fixated on maintaining stability and control over macro aggregates.

But conditions are currently ripe for China to accelerate key financial reforms that would in principle move the country closer to embracing the concept of internationalizing the RMB in the future. Moving more aggressively in promoting exchange rate and capital account flexibility should now be high on the reform agenda. However, given weak capital markets and the dominant role of state-owned banks, near-term prospects for meaningful interest rate flexibility are less clear, despite symbolic reforms. These reforms would

have a greater chance of succeeding if a major fiscal reform were also part of this process. Overall, as China moves forward on financial liberalization, leaders should set aside the question of internationalization and consider whether these key reforms are beneficial for China's economy in their own right.

Motivations for RMB Internationalization

A useful question to consider in divining the motivations behind internationalization is Why did 2008 mark the start of the process? The 2008 crisis did reveal weaknesses and vulnerabilities in the existing global financial system, and may have signaled the failure of the Western liberalized financial order for some observers, but China in fact was less affected than other major economies. If anything, the financial turmoil in recent years could be expected to have made Chinese policymakers more inclined to retain controls over key financial variables and capital movements than to pursue liberalization.

In principle, China's policymakers often emphasize the importance of self-control or autonomy in economic management. Yet despite its newly secured economic prowess, China is still beholden to a global financial system that underweights its importance. Some have argued that internationalizing the RMB will increase China's geostrategic clout and international prestige, and allow it to expand its global "soft power." How valuable is this prestige effect is unclear.

A more tangible concern is the priority given to maintaining stability of economic growth. Zhou's paper was released shortly after the U.S. central bank's quantitative easing program, which was perceived by many developing countries as contributing to more instability in global financial markets and accentuating pressures for them to appreciate their currencies. External shocks to the value of the RMB are of concern to Chinese policymakers for their spillover effects on trade. However, internationalizing the RMB does not necessarily solve the problem of volatility in exchange rates for China. In fact, successful internationalization could actually increase fluctuations and risks as the country relaxes capital controls and moves away from a managed exchange rate regime.

Trade efficiency is a more generally acknowledged benefit of internationalization. Almost half of China's large trade share of GDP is processing trade, comprising parts and components

originating from other East Asian countries that are assembled in China for export to the West. These transactions are often denominated in U.S. dollars, even when the trade largely involves movement of products within the region. It is argued that internationalizing the RMB, or expanding its use as a regional Asian currency, could reduce transactions costs and help insulate China and its regional production partners from the exchange rate risks of multiple cross-border movements of processing related components that are currently denominated in a variety of foreign currencies but principally in dollars.

The effective creation of a regional RMB-denominated trade system may reduce exchange-rate-related trading costs and uncertainties, but it would not eliminate the need for East Asian economies to adjust to competitive pressures that would show up instead in movements in prices and wage rates. Partners in the Asian production sharing network have been adjusting their currency movements in tandem to reduce trading risks and maintain competitiveness. While labor productivity increases in China have allowed real wages there to appreciate by 12 percent annually, growth in real wages in Malaysia, the Philippines, Taiwan, and elsewhere has been stagnant or even negative over the past decade. Shifting competitiveness is also part of the problem that has surfaced in the eurozone. Less-competitive countries like Greece and Spain could neither match labor productivity shifts in countries like Germany nor could they make adjustments through the foreign exchange rate. As a result, the burden of adjustment is on wages and employment in the southern eurozone countries. Turning the RMB into a regional trading currency could reduce trading costs for China and other Asian countries, but more thought should be given to the secondary effects on their economies.

Another reason that some have cited for pursuing RMB internationalization is that the process provides an opportunity for “reform by stealth.” Observers have argued that RMB internationalization is not an end goal for China’s technocratic leaders, but instead provides a convenient pretext and motivation to pursue financial liberalization and market reforms (Thornton 2012). Chinese leaders have used this strategy before, as in 2001 when Premier Zhu Rongji used accession to the WTO to push through structural changes, including removing agricultural protection and opening the services market. This factor could be influencing some of the more reform minded officials and

if so, then RMB internationalization as a broad objective can be a useful vehicle to push for financial and exchange rate reforms.

Costs and Benefits of Internationalization

Statements by Chinese officials regarding RMB internationalization mention a variety of objectives. China's reform process has been largely driven by pragmatic rather than ideological considerations. Thus, understanding the motivations for financial liberalization and RMB internationalization requires understanding the perceived costs and benefits to China's policymakers.

While China gains some long-term benefits from currency internationalization, there are intermediate risks in the process. The most-often-cited benefits are (1) the prestige effect, (2) trade efficiency, and (3) seigniorage coming from having a country's currency circulating abroad and held as a reserve. The United States is seen as having benefited considerably from seigniorage by serving as the major international reserve currency, and more recently through creation of a large amount of new money to finance its budget deficits. Given that China seeks to maintain very low government debt levels and has often criticized U.S. deficits and its policy response, it is unlikely that the seigniorage argument would be a motivating factor.

Internationalizing the RMB carries several immediate costs. It would result in some loss of monetary control, as described by the oft cited Triffin dilemma. There are likely to be tradeoffs between domestic and foreign policy objectives. Using a domestic currency as an international reserve currency requires expanding the supply of the currency abroad, usually by running large trade deficits. This is clearly inconsistent with China's objectives past and present. Exchange rate volatility is another risk of internationalization—opening the economy increases its exposure to external trade and financial shocks. Japan and Germany were reluctant to pursue internationalization of their currencies for precisely these reasons.

Nevertheless, internationalization does offer significant longer-term benefits for China as part of its shift to a more market-driven economy and the greater efficiencies that this will provide, even if there are near-term risks. Beijing will have to accept that internationalizing the RMB means sacrificing some stability and control over economic policy as capital controls are relaxed and the financial system becomes more market-driven.

Current Progress of Internationalization

How rapidly can currency internationalization proceed for China? Multiple studies have examined historical precedents for internationalization and the rise and fall of reserve currencies. Of these, some highlight incumbency advantages and the power of network effects while others give precedence to the size of a country's economy and its importance in international markets (see Eichengreen and Flandreau 2008).

The incumbency argument, which states that "I hold a currency in reserve because all other countries hold it in reserve" suggests a long timeframe for new currencies to achieve international status, as inertia in the currency composition of foreign reserves only allows for one dominant international currency. This theory suggests that within the next 20 years the RMB might at best attain status comparable to the German *deutschmark* (in the past) or the Japanese yen, international currencies used in trade and financial exchange but not held in large amounts as a reserve currency. Given this framework, it is unlikely the RMB could supplant the dollar as the major reserve currency within the next several decades. On the other hand, if one gives less weight to the incumbency argument and focuses more on absolute size of the economy and its international presence, the prospects for rapidly advancing RMB internationalization look much brighter.

China's internationalization of the RMB is a unique case of a country with a regulated, partially closed financial sector that is actively promoting its currency internationalization. Normally the process is purely market-driven. The government has adopted several different policies in the past years that have promoted RMB internationalization. It is useful to divide these policies into two categories: (1) measures specifically aimed at promoting the international status, and (2) use of the RMB and more general financial or monetary reforms that help RMB internationalization as a complementary effect.

Measures whose main or sole purpose is to elevate the RMB's international status include:

- Currency swap agreements—Since 2009, China has signed currency swap agreements with Indonesia, Argentina, Malaysia, Hong Kong, Singapore, South Korea, Uzbekistan, New Zealand, the UAE, and others. The agreements total over \$100 billion dollars. These agreements are in part politically symbolic, but several agreements signed with major trading

partners have the goal of bypassing the U.S. dollar as a medium of exchange.

- Expanded investment opportunities—China recently expanded from \$30 billion to \$80 billion the Qualified Foreign Institutional Investor (QFII) program, which since 2002 has allowed licensed investors to buy and sell shares in mainland Chinese stock exchanges. A recently introduced pilot program, the RMB Qualified Foreign Institutional Investor (RQFII) program, allows Chinese firms to establish RMB-denominated funds in Hong Kong for investment in the mainland.
- Shenzhen-Hong Kong “Bridge”—A financial pilot project in Qianhai, Shenzhen will allow for direct cross-border RMB loans between Hong Kong and Shenzhen, allowing Hong Kong banks to bypass mainland subsidiaries and for registered firms in Qianhai to issue RMB bonds in Hong Kong.
- Limited entry into interbank market—In 2010, a new policy was announced allowing approved foreign central banks, off-shore clearing banks, and other international lenders involved in trade settlement to invest in the domestic interbank bond market.

There are several other policy measures that have incidentally promoted RMB internationalization but have been part of China’s core policy agenda for a long time. These include recent reforms aimed at developing China’s financial markets:

- Widening the exchange rate trading band from 0.5 percent to 1 percent against the dollar.
- Limited “de facto” interest rate liberalization. In June, the People’s Bank of China (PBOC) decreased the 1-year lending and deposit rates by 25 basis points each, raised the deposit ceiling to 110 percent of the benchmark, and lowered the lending floor to 80 percent of the benchmark rate. In July, the central bank lowered the benchmark lending rate by 31 basis points and the deposit rate by 25 basis points, in a bid to spur lending, investment, and economic growth. This “de facto liberalization” is expected to narrow the interest margins of state-owned banks; however, many banks already offer loans at rates above the benchmark.
- Regularization of unofficial money markets in Wenzhou province: A new pilot program announced in March encourages

illegal “shadow banks” that offer loans to SMEs to register as private lending institutions, offering small enterprises who cannot secure credit from state-owned banks a way to legally secure financing. At the same time, the government announced that private citizens in Wenzhou would be allowed to invest up to \$3 million abroad without going through government intermediaries.

- Creation of a high-yield junk market for small and medium enterprises, various reforms to the domestic stock market including issue of asset-backed securities by state banks, and introduction of collateral debt swap transactions.

What has been the effect of these policies? According to the Bank for International Settlements, the RMB accounts for less than 1 percent of average daily turnover in global currency markets. International payments system Swift reports that in 2011 the RMB was used in only 0.3 percent of global payments. And the overall value of approved QFII and RQFII funds is currently only 0.8 percent of total market capitalization in China—if fully used, the ratio would rise to 2.6 percent (Stephen 2012). Total RMB deposits in Hong Kong soared in 2010 but peaked in November 2011 and have since declined, and demand for RMB-denominated “dim sum” bonds also weakened considerably in the final quarter of 2011. The reversal coincides with a 1 percent depreciation of the RMB against the dollar, and suggests that the growth of RMB deposits in Hong Kong was mainly driven by currency speculation and not by the use of the RMB as a true international currency. In sum, the renminbi’s presence on international financial markets remains minimal, and by these standards RMB internationalization has not made much progress.

The RMB’s use in trade settlement has increased but is still small compared to the size of the Chinese economy. Former PBOC advisor Yu Yongding notes that China has successfully promoted the use of the RMB as a settlement currency, increased the issuance of RMB-denominated bonds, and signed currency swaps with other governments (Yu 2012). However, the total volume of trade settlement in RMB is still low, and RMB import settlement far exceeds export settlement. The import-export trade settlement ratio reached 6:1 in 2010 before moderating to 2:1 in 2011. Dollars are still the preferred invoicing currency for the bulk of Chinese trade transactions, and the import-export settlement mismatch has had the effect of

increasing, not decreasing, China's foreign exchange reserves. This means that China's dependence on and exposure to the U.S. dollar, one of the motivating factors for officials to promote RMB internationalization, has actually increased, bringing potentially higher sterilization costs for the PBOC.

Government policy has also encouraged growth of outbound direct investment (ODI), which is a relatively recent development. Media reports indicate that over 18,000 Chinese firms invested more than \$380 billion by the end of 2011 (CCTV 2012). Nonfinancial ODI increased 8.5 percent in 2011 and continued to increase in the first eight months of 2012, although China's economic slowdown and continuing global malaise slowed the expansion of ODI. Sustaining outbound investment can also be seen as supportive of the government's intention to advance RMB internationalization. This would reduce the need to run a trade deficit as a means to increase the availability of RMB abroad. As China will likely maintain small trade surpluses in the near future and the country is sitting on a large volume of savings, some have predicted that over the coming decade as much as \$1–2 trillion in ODI may materialize, which would enhance the internationalization objective.

Given the necessity to develop deep and liquid financial markets, complete internationalization of the RMB is not a realistic outcome in the near future. China's domestic financial market is still at a rudimentary stage of development and the capital account is still tightly controlled, restricting the amount of RMB that can circulate freely across borders. Developing more robust domestic bond and equity markets will be necessary before the RMB can become widely used in global financial markets and interest rates can be shaped by market forces.

Political considerations could also likely hold back the use of the RMB as an international reserve currency. As Barry Eichengreen (2012) has noted, every reserve currency in history has been the currency of a political democracy. The lack of a transparent political process in China may discourage foreign investors from holding large amounts of RMB as part of their reserves.

In sum, internationalization of the RMB is work in progress. Use of the RMB in trade settlement is growing, but prospects for the RMB to become an international reserve or financial currency are still dim. Therefore, the current focus on financial liberalization and exchange rate regime reforms in China should be based

on their inherent merits rather than as preconditions for RMB internationalization.

Domestic Financial Reforms

The standard prescription for China to achieve complete RMB internationalization is to “first reform internal, then external”; in other words, to first strengthen and deepen domestic financial markets, continue with banking reforms, pursue interest rate and exchange rate liberalization, and only then open the capital account.

Exchange Rates

Currency internationalization generally leads to greater volatility in the valuation of the currency. Since the creation of the euro, its value swung from \$1.16 in January 1999 to 85 cents in October 2000. The euro rose to \$1.60 in July 2008 before it fell to the current level of \$1.31. Similarly, after the Plaza Accord, the yen appreciated from its February 1985 level of 260 yen per dollar to a high of 84 in April 1995, then depreciated rapidly back to 134 in February 2002 before appreciating to 77 in October 2012.

Most observers see the RMB as moderately undervalued, but some are now saying that the gap is no longer significant enough to matter. Based on the experience of the euro and the yen after moving to a flexible exchange rate regime, the RMB could be subject to greater fluctuations, but continued appreciation is no longer a foregone conclusion as evidenced in its recent movements. Given the volatility in the euro and dollar coupled with China’s deteriorating trade prospects, the current situation presents a good opportunity for China to move forward on exchange rate flexibility by expanding the RMB band because there is less likelihood that movements will only be in one direction. This reform would further the goal of having the RMB fluctuate based on market signals and not because of central directives.

Interest Rates

Nick Lardy (2012) and other observers have pointed out that the current managed interest rate regime or “financial repression” is a major obstacle to RMB internationalization. As the story line goes, very low or negative real interest rates in China penalize savers and constitute an effective transfer of capital from individuals to the

government. This facilitates government-directed investment and allows many companies, especially large SOEs, to profit from low lending rates.

But negative real interest rates are not unique to China—many Western and Asian economies also have experienced at various times negative real rates. Since 2001, the United States, UK, Singapore, and Taiwan have all experienced periods when 1-year deposit rates were less than the annual rate of inflation. More recently, negative returns to savings have become quite common although interestingly countries like China and Korea have become the exceptions (Table 1).

Some countries have used financial repression to inflate away high debt levels (Reinhart and Kirkegaard 2012). In China, financial repression has been viewed as the only practical option for the government to secure the resources for its ambitious investment needs in the absence of a fully developed fiscal system. Surprisingly for a socialist country, China's government expenditures in relation to the size of its economy lag far behind comparable countries. Government expenditures account for about 25 percent of GDP in China, compared to 30 to 40 percent in other middle-income countries and around 45 percent for many EU countries. Especially striking are China's relatively low social expenditures as a share of GDP, which are roughly a third less than those of other middle-income countries. Therefore, without a major fiscal reform, eliminating financial repression and reforming the banking system will likely remain as unrealized intentions.

TABLE 1
SELECTED 3-MONTH INTEREST RATES AND
PROJECTED INFLATION RATES, 2012

	3-Month Rate	Annual Inflation
China	3.66	3.1
South Korea	3.07	2.4
Singapore	0.3	4.4
Taiwan	0.94	2
UK	0.63	2.7
United States	0.38	2

SOURCE: *The Economist* (2012).

Hypothetically, should the government immediately liberalize interest rates, the direction interest rates would move is uncertain. Preferentially low borrowing rates for SOEs and much higher borrowing rates for private enterprises would probably converge but the overall demand for loans might not change much. Pressures to adjust deposit rates are complicated by China's huge pool of savings. If interest rates were liberalized and capital controls remained in place, how hard banks would compete for more savings deposits by raising interest rates is debatable. With less than robust investment demand, banks might not be eager to attract new deposits. Under this situation, interest rates could remain the same or even fall. With freer capital movements, however, some of these excess savings could move abroad as Chinese households and firms seek to diversify their portfolios. But given China's higher GDP growth rate and relatively higher deposit rates compared to other countries, capital outflows could be matched by inflows from foreign investors. With a liberalized financial regime and capital account, there are many possible scenarios with no predetermined bias in terms of whether interest rates in China would rise or fall.

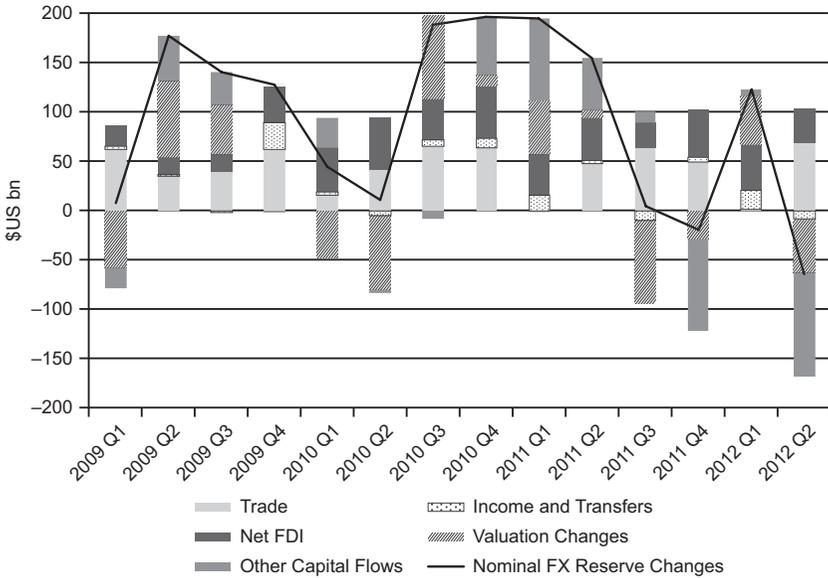
Capital Controls

Capital account liberalization is frequently mentioned as a stumbling block in the internationalization process. The textbook sequencing for internationalization is to first reform internally by liberalizing interest rates, strengthening the financial system and allowing the exchange rate to move to equilibrium levels, and then to open the capital account. The reasoning for this sequence is that that relaxing capital controls without realizing these preconditions would spark massive capital flight from China.

Beginning from late 2011, net capital outflows from China increased as RMB appreciation expectations reversed (Figure 1). Slowing economic growth and a modest RMB depreciation have led some to predict capital flight from China; however, such fears are overstated.

China has amassed a more than comfortable cushion of \$3.2 trillion in reserves. Apparent capital outflows, driven partly by valuation changes, are still small compared to total reserves. Net FDI and the likelihood of continued but modest trade surpluses provide some assurance that the fundamentals remain strong and external balances are unlikely to deteriorate sharply. Moderate interest rate differentials

FIGURE 1
CHINA'S CAPITAL INFLOWS



SOURCES: GaveKal data, MOFCOM, SAFE, and IMF.

between China and other countries such as the United States and Singapore are not likely to spur large capital outflows short of a major and unexpected political crisis.

Handwringing over the risks of capital flight also overlooks the fact that China can well afford and would actually benefit from capital outflows. China has high domestic savings and has registered large capital inflows periodically over the past decade, as investors sought higher returns abroad. Chinese leaders recognize that not all of this capital can or should be used at home. The growth of risky, off-the-books wealth management products and overheating property markets in some large cities reflect the lack of domestic investment options and the need to create more options including sending capital abroad.

Given China's large reserves, the movement of money outside the country should be seen as a normal market-driven process with significant benefits in the form of diversifying investment holdings for firms and households, and not as a ruinous process of capital flight. In fact, existing programs for overseas direct investment and personal

overseas investment should be expanded. Relaxing capital controls will reduce pressures on property prices by allowing Chinese savers to seek new investment opportunities overseas. This will also reduce growth in off-the-books wealth management products, which are often traded in poorly supervised black markets. And allowing capital to flow abroad will introduce some competition for Chinese banks, encouraging them to adapt and making the Chinese financial system more responsive to market forces.

Conclusion

China is already a major economic power and is fully integrated into the global trade markets, but the total percentage of trade settled in RMB remains small. Underdeveloped financial institutions and capital controls have limited the use of the RMB as an international reserve currency. And despite the expansion of programs like QFII and RQFII, the development of the Hong Kong bond market, and limited relaxation of capital controls, much of the cross-border movement of RMB still reflects exchange rate arbitration rather than a true market-driven use of the RMB as an international currency.

Currently, China has reached a state of partial internationalization with capital controls. The time is right to move on financial reforms, including exchange rate liberalization and relaxation of capital controls. Interest rate liberalization should also be an objective but is less likely to be realized in the near future. More attention, however, should be paid to fiscal reforms since lack of progress in this area is a major barrier to eliminating financial repression more generally. All these reforms are more important for their own sake than as steps to internationalizing the RMB.

Internationalizing the RMB will be a lengthy and gradual process. There are short-term risks associated with currency internationalization, while some of the benefits of the process are more nebulous and realizable only in the distant future. Thus, more experimentation can be expected. This will lead to some near-term distortions but will also provide insights into the internationalization process for policymakers, and ultimately reduce the risks involved. Finally, more attention should be given to the effects of internationalization on the regional production-sharing network since having the RMB play a greater role in this arena would provide more tangible evidence of the potential benefits of this initiative.

References

- CCTV (2012) “China ODI Grows Rapidly.” CCTV (23 August). Available at <http://english.cntv.cn/program/bizasia/20120823/102926.shtml>.
- Eichengreen, B. (2012) “The Dollar’s Days as a Reserve Currency Are Numbered.” *Financial Times* (8 October). Available at www.ft.com/intl/cms/s/0/005370e2-1137-11e2-8d5f-00144feabdc0.html.
- Eichengreen, B., and Flandreau, M. (2008) “The Rise of the Dollar, or When Did the Dollar Replace Sterling as the Leading International Currency?” NBER Working Paper (July). Available at www.nber.org/papers/w14154.pdf.
- Horesh, N. (2011) “The People’s or the World’s: RMB Internationalization in Longer Historical Perspective.” *Economics Research International*. Available at www.hindawi.com/journals/econ/2011/161074/abs.
- Lardy, N. (2012) “Interest Rate Liberalization and the International Role of the RMB.” Available at www.cf40.org.cn/uploads/111116/201242410.pdf.
- Reinhart, C., and Kirkegaard, J. F. (2012) “Financial Repression: Then and Now.” VOX (26 March). Available at www.voxeu.org/article/financial-repression-then-and-now.
- Sheng, A. (2012) “The Yuan’s Place in History.” *Caixin* (10 May). Available at <http://english.caixin.com/2012-05-10/100388813.html>.
- Stephen, C. (2012) “China’s Welcome Mat for Foreign Investors.” *WSJ MarketWatch* (8 April). Available at www.marketwatch.com/story/chinas-welcome-mat-for-foreign-investors-2012-04-08.
- The Economist* (2012) “Economic and Financial Indicators” (22 September).
- Thornton, A. (2012) “Anemic Ascent: Why China’s Currency Is Far from Going Global.” Lowy Institute for International Policy Analysis (14 August). Available at http://lowyinstitute.cachefly.net/files/thornton_anaemic_ascent_web.pdf.
- Yu, Y. (2012) “Revisiting the Internationalization of the RMB.” Asian Development Bank Institute Working Paper (July).
- Zhou, X. (2009) “Reform the International Monetary System.” Speech delivered 23 March. Available at www.bis.org/review/r090402c.pdf.