CHAPTER 1

INTERNATIONALIZING THE RMB

The rapid internationalization of the renminbi (RMB) is driving – and being driven by – a fundamental and historic transformation of the global financial system. The impact, which is only starting to be felt, will eventually ripple across the entire world, affecting every economy, government, business and household.

The ramifications are clearly profound. While some are predictable, others are poorly understood and much is necessarily plain unknown. However, history warns that no substantial realignment of the global monetary system is without risk. Indeed, as we show in Chapter 2, the results have at times been cataclysmic. While conscious of these caveats and the nascent stage of the current changes, we nonetheless see cause for optimism in both the direction and progress of the RMB's internationalization.

In this chapter, we shall describe our findings with a broad brush, leaving the details and most documentation to subsequent chapters.

Even as recently as five years ago, few could have imagined the rapidity of the RMB's rise. This has been both a cause and a consequence of the "perfect storm" of four key converging trends:

- Increasing international use of the currency, driven by a combination of cost savings for business, Beijing's support – backed by domestic reform and opening – and the growing weight and influence of China's economy.
- US resistance not only to modernizing and expanding the Bretton Woods institutions that have guided global monetary affairs since 1944, but also to accepting new alternatives designed to fill the growing gaps.

- Deepening skepticism, especially among emerging nations, of the existing system in the wake of the 2008–2009 global financial crisis (GFC). In particular, they are questioning: whether it truly offers the optimal means to achieve stability and prosperity; the continuing relevance of Bretton Woods institutions; and the role of the US Federal Reserve as the de facto world central bank, given that it is required by law to primarily serve US interests.
- China's promotion – particularly in Central and South Asia, the Middle East and Africa – of the kinds of development that helped OECD (Organisation for Economic Co-operation and Development) countries prosper and integrate, as well as enabling institutions.

The pace and pattern of the RMB's internationalization from here will continue to depend on – and drive – these global and domestic developments.

THE CONDITIONS FOR BECOMING A GLOBAL CURRENCY

Internationalization alone does not guarantee a currency's global importance. The New Zealand dollar, for example, is highly internationalized but of little import beyond its borders. Three connected conditions are required for any currency to become a global heavyweight: a large and growing domestic economy; substantial and open capital markets; and trusted and effective institutions to manage the economy and markets. China faces both improving prowess and serious challenges in each of these areas.

Economic Drivers: Growth and Reform

China certainly appears to meet the first of these three conditions. After little more than three decades of galloping growth, following Deng Xiaoping's "reform and opening," it is now the world's second-largest economy – and the biggest by purchasing power. However, it can no longer continue expanding at the 10% pace of the past 35-odd years. Even to maintain a relatively rapid annual rate of 6–7%, China must overcome four substantial challenges. Combined, they present a formidable hurdle.

First, the most important engines of the economy need to be changed. China has to effect a transition from being driven by investment, exports, catch-up manufacturing and state enterprises and instead look to domestic consumption, services, innovation and small and medium-sized enterprises (SME).

Second, it must manage its way clear of a serious financial squeeze compounded from local-government debt, a housing bubble, unregulated shadow banking and extensive industrial overcapacity.

As if these were not challenge enough, it also faces a rapid decline of its working-age population in proportion to the fast-rising numbers of retirees. To maintain growth and fund social welfare, it needs to use its remaining workforce much more productively.

Finally, it must resolve its current environmental crisis of alarming levels of air, water and soil pollution, with the attendant problems of energy security and food safety.

Beijing's response has been encouraging. Its new leadership has announced plans to pursue a far more market-based economy, has begun judicial and governance reforms, and has begun implementing an ambitious environmental program comprising measures to repair and regulate. To impose politically difficult reforms, it has streamlined its top leadership and wielded an anti-corruption campaign.

Given these aims and China's demonstrated ability to implement major change, we expect it to continue, after overcoming the current financial squeeze, to expand more quickly than most other emerging countries and much faster than the advanced economies. We forecast average annual real GDP growth of 5.0–7.5% over 2016–2020. For the following decade, we expect average growth of about 6.0% if planned reforms are achieved, but only 3.5% otherwise. In Chapter 3, we consider several "surprises" that could push the pace even higher or lower.

The core objective of the economic reforms needed to sustain relatively high growth is more efficient and sustainable allocation of resources by moving to more market-dominated allocation of resources. This is in marked contrast to past practice, whereby bank loans, stock-market listings, land allocations and regulatory permissions have been largely dictated by bureaucrats, with a strong bias toward state-owned enterprises (SOEs). Their preferential access to capital – via both the stock market and bank loans – has been at the expense of smaller, dynamic, private-sector firms, which are now the primary drivers of growth, jobs and innovation. The smaller companies' funding constraints were exacerbated by suppressed interest rates, because, if banks can't charge higher interest rates, they can't cover the risk of lending to SMEs. On top of that, an artificially depressed RMB favored old drivers such as net exports to the detriment of the domestic-market expansion needed to fuel the next phase of growth. Similarly, suppressed exchange rates benefited traditional manufacturing based on cheap labor at the expense of more innovative, high-tech industry and domestic consumers. Meanwhile, controlled capital markets deprived savers of investment opportunities and drove their funds into the unproductive property market.

In a few short years, China has mostly both liberalized interest rates and allowed the RMB to equilibrate to a market level. Consider, for example, that the trade surplus has been running at a small 2% of GDP, capital outflows have been substantial, and the People's Bank of China (PBOC) actually intervened recently to support the currency in the interests of broader stability. As well, the freely convertible offshore and capital-controlled onshore market rates have rapidly converged. In late 2014 and early 2015, senior Chinese officials were indicating privately that the RMB is likely to be basically convertible by 2017 and possibly earlier; whether these optimistic forecasts are realized depends on overcoming the conservative resistance that has been augmented in the wake of the mid-2015 stock-market collapse.

Hence, the fundamental needs of the real economy are driving financial liberalization – and the necessary reforms are proceeding quickly. As it happens, these reforms are also exactly what are required for RMB internationalization.

In turn, RMB liberalization and internationalization are necessary components of further financial liberalization, fueling a virtuous circle of reforms. (They also help drive politically contentious domestic liberalizations.)

More specifically, some key links in this virtuous circle of reforms can be described thus: for the RMB to internationalize, it must be convertible; if it is convertible, capital flows must be open; if they are open, domestic interest rates must be free; if they are free, banks must be sound and soundly regulated so that a rise in interest rates does not risk a banking crisis; if the banking system is to be sound, it must be buttressed against runs by the creation of deposit insurance. We examine these links and the logic behind them in more detail in Chapter 3.

Economists typically describe the links in the preceding paragraph as a set of preconditions. For instance, domestic interest rates must be freed and the banking system fully stabilized before the capital account is opened, because opening capital markets too quickly, for example, can be dangerous. The risk is that money floods in, debt becomes excessive and then the money flees, precipitating a currency crisis. This is what happened in the Asian financial crisis of 1997–1998.

Instead of following a sequence of prerequisites, China seeks to take advantage of the virtuous circle of reforms, and instead takes incremental steps from both ends. This sets in train a virtuous circle, which enables reform to move fairly quickly while also allowing constant checks to ensure the process is safe and stable. Such a virtuous circle plays to China's strength of effecting incremental but rapid reform. When China has, for instance, dismantled rural communes, changed most prices from decreed prices to market prices, put most firms on a market basis and so forth, it has proceeded incrementally (no "shock therapy"), with careful field testing, but in historical perspective quite quickly. That approach has proved brilliantly successful and Beijing is now using it for financial liberalization. We analyze the detailed process in Chapter 3.

The other two conditions for a currency to become globally important, as we noted above, are large capital markets, especially in government bonds, and trustworthy institutions. For huge amounts of money to flow across borders, there must be a sufficiently deep and accessible pool of currency to draw on when things get rough. And they always do get rough eventually. Chapter 4 addresses the creation of a deep and accessible pool of bonds and Chapter 5 looks at other domestic markets.

Institutional Foundations

Conscious of institutional weakness, China initially turned to offshore markets to spur RMB internationalization. As a first incremental step, it allowed simple, individual RMB deposits in Hong Kong, later extending this to a broad range of financial products in a dozen other international financial centers.

More recently, it has established the Shanghai–Hong Kong Stock Connect, which allows restricted cross-border share trading, with plans for a similar scheme involving the Shenzhen exchange. This has required extensive regulatory reforms to ensure compatibility in such areas as taxation and custodian and settlement arrangements.

China is also effecting further reforms by establishing free-trade zones, first in Shanghai and subsequently in three other regions. These zones enable it to incrementally introduce, test and then extend new institutional arrangements for the likes of financial and capital-account liberalization and RMB internationalization.

As well, Beijing has encouraged its commercial and policy banks to follow Chinese firms expanding overseas. Significantly, it has also set about establishing and helping fund alternative institutions such as the Asian Infrastructure Investment Bank (AIIB), the Silk Road Fund and the New Development Bank (NDB, also sometimes called the BRICS Bank). The new alternative institutions appear likely to be soundly governed, sustainable institutions, as the China Development Bank already is.

On top of these measures, within only the past few years, the PBOC has signed bilateral local-currency swap agreements exceeding USD498.5 billion with 29 other central banks in a bid to both provide liquidity for offshore RMB settlement and build trust and confidence.

At home, the most important institution needed to support a globalized RMB is the PBOC, which, happily for this purpose, is the most highly developed institution in China. It has highly professional, reformist management that has demonstrated its ability to control inflation and stabilize the currency – moving toward market interest rates and foreign exchange rates.

More broadly, the central government administration of China has meritocratic personnel development, a technocratic approach to policy analysis and a superior ability (compared with peers like India and Brazil) to confront problems and implement solutions. Its problems include pervasive graft (nearly universal in emerging markets), sometimes weak ability to enforce policies on local governments, and an incongruent balance of budget and responsibilities between the center and local governments. Notwithstanding the weaknesses, it consistently delivers superior results, compared with international peers, in such tasks as building infrastructure, educating the population and maintaining budget discipline.

China's greatest institutional weakness in supporting a global currency is its legal system. A global currency entails huge numbers of transactions, many quite large, and, inevitably, a large number of disputes. International and local participants are anxious to know that any dispute will be settled objectively, by a transparent process based on laws. In the reform period, China's legal system has evolved in very positive directions, and important new reforms were announced in 2014, but a Party commission retains ultimate authority over decisions. Hence, foreign corporations and many Chinese companies prefer to sign contracts under Western-type legal systems, and this will slow the emergence of the RMB as a global currency.

Thus, China's financial-institution building is well under way and, indeed, accelerating, but still far from fully modern. It is sufficient, and becoming more adequate every year, to support an enormous increase in the international use of the RMB, but not yet comparable with the institutions of most OECD countries.

We next consider the final condition: capital markets.

Deepening Capital Markets

An international currency requires deep and accessible capital markets. At the highest level, if other countries are going to use the RMB as a reserve currency, they need to know that they can do huge trades in that currency during periods of crisis without moving the value of the currency disadvantageously. The US Treasury bond market is the ultimate deep and open market; it can accommodate trades of many tens of billions of dollars without excessive price changes, whereas the euro cannot. And other countries know that the US Treasury bond market will not close during a crisis. China's government bond market is growing fast but remains much smaller than its US counterpart, and is fragmented like the euro market although for different reasons. Foreign access is limited by capital controls and potentially subject to curtailment during a crisis.

Bonds

Although China's bond market has expanded massively during the past 20 years, it still amounts to only 40% of GDP, compared with some 200% for the USA and the UK. This is largely because banks dominate China's financial sector.

As well, its onshore bond market is mostly closed to overseas investors. Foreign holdings account for a mere 2.5% of total outstanding onshore RMB bonds. However, the market is quickly opening. More than 200 foreign institutions, sovereign funds and commercial and central banks have gained market access during the past few years.

Corporate and municipal bonds contribute to liquidity, but Chinese government bonds (CGBs) are the core. With about USD4 trillion in capitalization, the CGB market is the world's seventh largest for treasuries, although only about 10% the size of its US counterpart.

However, China's bond market is fragmented, with several different regulators and types of market platforms. As well, most issues are government-related and, thus, subject to moral hazard. Finally, the investor base is narrow, concentrated and almost entirely domestic.

Nonetheless, there is reason to believe that the market might well be largely integrated within a few years. Integrating, or making consistent, the separate bond markets controlled by the PBOC, the Ministry of Finance and the National Development Reform Commission is an important test of China's institution-building process. We think it likely they will pass this test, but readers can monitor it for themselves. The bond market also offers tremendous potential for rapid growth if the following caveats can be overcome. First, the banks' capital requirements reduce their market dominance. Second, local governments restructure their bank debt by issuing bonds. Third, bond issuers and holders become more diverse.

Consolidation is critical if China's bond market is to become one of the top three in size and liquidity by 2020. This would make it structurally more like the deep US treasuries market and far more liquid than the fragmented EUR market, as will be discussed in Chapter 4. It would also significantly bolster the RMB's bid to become a truly global and important currency. However, although China is heading in the right direction in each of these key areas, the extent and pace of change remain unclear.

Stocks

Bond markets provide the principal support for an internationalizing currency, but stock markets are also important. Encouragingly, China's stock markets are rapidly liberalizing domestically and becoming more open internationally, although foreigners still own less than 2% of all A-shares.

The first incremental step in opening the market entailed small quotas for so-called qualified foreign institutional investors (QFIIs). These quotas are rapidly growing. More recently, as noted above, Beijing established the Shanghai–Hong Kong Connect scheme, which since November 2014 has enabled limited but sizable trading between the two cities' exchanges. A Shenzhen–Hong Kong Connect scheme is due to begin soon. Once these are working smoothly, other programs aimed at further opening China's stock markets are likely to be introduced. This will present a substantial opportunity for foreign investors. Shanghai's A-share market, for example, is already the world's second largest and is continuing to expand rapidly.

In the decade after 2004, China's total stock-market capitalization rose from 23% of GDP to 60% of what by then was a much larger GDP. As well, the political imperatives that once drove listing priorities are being replaced by the sort of regulated registration process that applies in most major markets.

Initially, listings were largely confined to SOEs and listings were restricted to create scarcity and thereby maximize their value. The purely political purpose of this approach was to help fund daunting future state liabilities for the likes of pensions and medical insurance. This is contrary to the market's intrinsic role as an efficient allocator of capital, and further denied dynamic private firms access to much-needed funding. (As noted above, their ability to borrow from banks was also severely restricted by preferential policies that ensured the lion's share went to SOEs.) The resulting "immaturity flaws" of the market are detailed in Chapter 5.

These impediments to the efficient working of the markets are now quickly being removed. Two new boards on the Shenzhen exchange, for example, are devoted entirely to small-cap stocks and have experienced spectacular growth.

Such reforms, along with further opening of the market to overseas investors, will help drive substantial RMB-based trading. We expect foreign ownership in China's stock markets to rise from the current low of 1.5% (versus 16% in the USA and 28% in Japan) to about 9% by 2020. Restrictions on foreign ownership and control of brokerages are also likely to be further eased.

As we were writing this book, during late 2014 and the first half of 2015, the Chinese government tolerated and endorsed a huge rise in the stock markets, encouraging people to invest even when valuations were far above what developed markets consider reasonable levels. The bubbles then burst, with markets declining 35% before extraordinary government interventions achieved at least a temporary stabilization. Even after the bursting of the bubble, the markets remained far above where they had been a year earlier, but large numbers of people who joined the latter months of the rise did so with borrowed money and were badly burned.

In the short run, the stock market's volatility means economic growth will be somewhat (but probably not a great deal) lower, heavy government intervention will for some time impede the market's function as an efficient allocator of capital, and the wave of private firms that expected to get needed capital from the stock market will be delayed.

The long-term consequences for the market, for the economic reform program and for renminbi internationalization, remain unclear. The longer-term consequences depend partly on politics. The boom was known as the "reform bull market," and it is unclear whether the ensuing bust will affect sentiment about financial reforms more generally. Although government management of the market was largely responsible for both the boom and the bust, the government's realization that market moves can have such serious and partially uncontrollable consequences may strengthen those who counsel greater caution in liberalizing domestic finances and reducing capital controls. Foreign investors and regulators were taken aback both by the intensity of the government intervention and by a tendency to blame foreigners and alleged "malicious short sellers" for having manipulated the crash. For a time at least, foreigners will be more cautious about treating the Chinese markets as normal "market-driven" phenomena, for instance delaying inclusion of Chinese markets into global MSCI (Morgan Stanley Composite Index) indices. We discuss this in greater detail in Chapter 5.

The sudden and extreme volatility of China's stock market in 2014–2015 is an example of the reason why, throughout this book, rather than providing point forecasts, we speak about ranges of outcomes, alternative scenarios and potential surprises. Both economic and political events can create sharp deviations from the outcomes that simple extrapolation of current trends would lead us to expect.

Banks

Although foreign banks accounted for only 2.7% of total loans in 2013, China's banking sector is the world's largest. It is also more open than that of Japan, for example, where foreign banks had only 1.5% market share in 2013. As well, Beijing is moving more quickly to ease restrictions on foreign firms – such as a recent reduction in their onerous capital requirements. These reforms are helping drive a substantial increase in offshore RMB holdings and an even more rapid rise in onshore holdings by non-residents. Cross-border business of all kinds is also expanding and the use of derivatives, especially for hedging, is surging. As discussed in Chapter 5, China's banking sector may expand at a slower pace than its economy, because of the expected disintermediation process whereby money flows more through the capital markets and less through banks.

BUSINESS AND RMB

RMB internationalization ultimately works only if business finds it profitable. Business seems to be finding it very profitable. As Chinese tourists fan out over the world, accepting RMB becomes increasingly useful; merchants in Hong Kong, Singapore and several other Asian economies now accept RMB cash and, more importantly, electronic RMB-based transactions are readily accepted. Raising money through "dim sum" bonds has become possible and attractive. As the currency is freed from controls and becomes more volatile, more companies want to bet on appreciation or depreciation over varying lengths of time. More companies need to hedge their RMB exposure. More companies find that they can profit from arbitrage between low US interest rates and higher Chinese rates. As Chinese controls are relaxed, foreign companies can transfer RMB between subsidiaries without first converting into USD and then back again; along with many others, Samsung's 130 subsidiaries in China save a great deal this way. Chinese suppliers and purchasers are willing to give discounts to buyers who are willing to deal in RMB and thereby relieve them of exchange risk.

As China punches holes in its capital controls, more foreign funds are allowed to invest in China and more domestic Chinese funds are allowed to invest abroad. The Shanghai–Hong Kong Stock Connect and the forthcoming Shenzhen version allow stock transactions, heavily in RMB. China is beginning to allow some of its citizens to invest abroad. Mutual recognition of fund managers in Hong Kong and in China proper foreshadows broader opening of markets to fund managers.

As these many kinds of transactions proliferate rapidly, banks are rushing to seize the opportunity. And countries are competing to set up RMB settlement centers. This has created a virtuous circle, whereby rising business stimulates the development of institutions that make such business more efficient and reliable.

RMB-PRODUCT MARKETS

Global payments and trade continue to be conducted overwhelmingly in USD. However, the RMB is rising quickly. In the 21 months to October 2013, it soared from 1.9% of global trade to 8.7%, surpassing the EUR as the number 2 currency. About 18% of China's trade is now settled in RMB – equivalent to about USD272 billion in 2013. Even as the value of trade increases significantly, we expect the RMB share to almost double to about 35% by 2020. At current exchange rates, that would amount to more than USD1 trillion.

Most RMB-denominated trade settlement still occurs in Hong Kong, but other major cities – London, Paris, Frankfurt, Toronto, Seoul, Taipei, Singapore and Sydney – are competing to create settlement and business centers. In terms of global payments, according to the Society for Worldwide Interbank Financial Telecommunication (SWIFT), the RMB became one of the top five currencies by the end of 2014, up from number 13 only 24 months earlier.

Foreign-exchange (FX) transactions involving the RMB are also on the rise, increasing by more than 300% from the equivalent of USD35 billion in 2010 to USD120 billion in 2013. We expect this to exceed USD1 trillion by 2020. At that point, the RMB should be one of the top five FX currencies globally, ahead of the highly internationalized GBP and behind the USD, EUR and JPY. In Hong Kong, FX-transaction settlements involving RMB already exceed USD100 billion per day.

This expected rise in the RMB trading in the currency market will be driven primarily by China's growing international trade, its increasingly more open capital account and its more flexible currency. The consequently bigger international balance sheet, larger cross-border capital flows and increased currency volatility will naturally give rise to a growing need for currency hedging, for Chinese and foreign investors alike.

The offshore RMB markets have played a unique role and have also been expanding fast, in terms of size, location and product range. Moving gradually away from the capital controls that were still quite heavy 10 years ago, Beijing's initial strategy is to test out the external use of RMB offshore, first in Hong Kong in 2004 and now offshore. RMB centers have spread from Asia to Europe, the Middle East, Latin America and now North America, knitting a global RMB network, wherein nowadays the currency trades around the clock. Hong Kong remains the premier offshore RMB market, but its dominance has slipped and will continue slipping, indicating that RMB internalization has gained considerable global momentum and will eventually converge with a more open domestic RMB market in Shanghai, together forming a truly global RMB market.

RMB internationalization reduces trading costs and risks, allocates resources more efficiently and reduces dependence on volatile foreign currencies and interest rates. In later chapters, we describe how businesses benefit from RMB-based transactions. Here, we briefly note a likely shift to RMB denomination for some key commodities.

Given its massive and growing manufacturing base, China is the world's largest consumer of several key metal commodities, including iron ore, copper, gold, nickel and platinum. In Q3 2013, it overtook the USA to become the world's largest net importer of petroleum. As well, it is the world's largest producer of steel and gold.

Thus, we would not be surprised if those companies and countries involved in these trades seek efficiencies from quoting the prices of such commodities in the currency of the largest buyer or seller. Hong Kong Exchange and Clearing Limited (HKEx), which bought the London Metals Exchange (LME) in 2012, has already launched commodities contracts quoted in RMB.

Offshore markets for various RMB-denominated financial instruments are well established and growing. The value of bond issues, for example, has risen significantly, albeit from a low base of RMB10 billion in 2007 to RMB140 billion in 2014. As well, there has been massive expansion during the past few years of RMB deposits, certificates of deposits (CDs), loans and FX and rate derivatives. Hong Kong is also seeing growing investor interest in RMB-based funds, including listed, unlisted, exchange-traded (ETF) and those authorized to invest in mainland markets. So far, however, Hopewell Highway Infrastructure is the only Hong Kong-listed company to offer RMB-denominated stock, as part of a dual-currency share offer it launched in October 2012.

To further support RMB internationalization, Beijing is building and strengthening financial networks and ties across the world. In the space of only three years, for example, the number of financial institutions doing business in RMB has risen from 900 to more than 10,000. As well, settlement centers for RMB-based trade now circle the globe. Further, as noted above, the PBOC has established a wide network of swaps with other central banks that helps underpin trade and offers some of the stability normally associated with FX reserves in case of crises. Also, both the China Development Bank (CDB) and the new Silk Road Fund will likely provide more RMB funding for major projects over time.

The extent to which hedging instruments, futures and other derivative RMB markets can expand is constrained by liquidity. Conversely, their development is crucial to further expansion of liquidity. Unless the markets underlying these instruments are deep and liquid, large trades or volatility in related areas can drastically affect their pricing.

The gradual lifting of capital controls creates business opportunities that further extend the use of the RMB. At the simplest level, the ever-growing hordes of increasingly adventurous Chinese tourists are carrying RMB with them to every corner of the globe – and per capita they are the world's biggest spenders after they arrive. At a more sophisticated level, the Stock Connect schemes will create substantial cross-border flows of RMB that may expand rapidly. Growing offshore RMB markets mean the currency will trade around the clock, particularly benefiting banks with global capacity and China expertise.

Allowing foreign companies operating in China to pool their RMB cash from different subsidiaries and branches, thereby achieving cost savings and greater efficiency, is another significant development. This was introduced nationwide late in 2014, after a short and successful trial in the Shanghai Free Trade Zone (SFTZ). The speed with which it occurred was impressive, but it nonetheless followed China's usual strategy of incremental institution-building and liberalization. First, Beijing tests new policies – in this case, using trusted institutions in one of its free-trade zones. The results are monitored closely and adjusted if necessary. Once the process is deemed to work properly, it is introduced more widely.

There are still enormous potential benefits to be realized from further liberalization of capital controls, especially in areas such as insurance and funds management. In Japan, for example, where insurance is largely driven by the private sector, total life premiums amount to about 20% of GDP, compared with less than 2% in China. Also, the Chinese fund management sector has been opening fast in 2015, as the mainland and Hong Kong agreed on a scheme of cross-border fund sales, with an initial quota of RMB300 billion each way. This exceeds 60% of Hong Kong's current annual fund sales.

RESERVE CURRENCY

Popular discussion about the rise of the RMB tends to focus on when it will replace the USD – in other words, how soon before it becomes the principal reserve currency. In fact, this is far away and of little importance. The RMB's rapid adoption for global settlements, FX trading and other key functions, together with the emergence of new Chinese-backed financial institutions, is transforming the world's monetary system.

By contrast, the RMB's use as a reserve currency is much less significant and likely to remain limited – possibly for decades, in the absence of a political or financial cataclysm. The RMB accounts for less than 1% of total global FX reserves, and we forecast that by 2020 it may potentially reach 5%, comparable with the yen's share in 2014.

Although more than 50 central banks hold small amounts as official reserves, the RMB is still not designated as such by the International Monetary Fund (IMF). That may change in October 2015, when the IMF next reviews the composition of its hybrid reserve currency – known as special drawing rights (SDR). This basket currently comprises USD, JPY, EUR and GBP. The criteria for inclusion are that a currency be widely used and freely usable. As we have seen, the RMB certainly meets the first condition. And, by consensus, the second is not strictly defined as "fully convertible." Thus, it will be a matter of judgment – or politics – whether China's remaining restrictions on inflows and outflows mean the RMB is not "freely usable."

As noted above, Chinese officials have said privately that the RMB will be basically convertible by 2016, which would make it freely usable come the next SDR review in 2020. The IMF decision in the fall of 2015 is largely symbolic anyway, given that the hybrid is not widely used, with only SDR210 billion (USD294 billion on June 15, 2015) in existence as of 2014. However, symbolism is important. US opposition to the RMB's inclusion, in the wake of its ill-fated resistance to the establishment of the AIIB, would add to the impression that it is determined to limit China's role in global financial governance. The Chinese government's management of the 2015 stock-market crash (see Chapter 5) will strengthen those who say that the purpose of a reserve currency is to be fully available in a crisis situation and that the stock-market intervention, which included prohibitions on big holders selling their shares, shows that in a crisis the Chinese government might have other priorities than keeping markets open. If financial reform, including capital market opening, continues at its 2014 pace, notwithstanding the stock-market crash, the RMB might be welcomed into the SDR well before 2020.

The RMB is far from becoming a contender to be the primary reserve currency and there is no evidence that it aspires to be. One prerequisite would be that other countries consider it sufficiently liquid to be used during a major financial crisis. In 1997, for example, Thailand went through more than USD30 billion of reserves in a matter of weeks. Had its reserves been in EUR even, this would have sharply moved the EUR exchange rate against the trade, whereas it was easily absorbed in USD. For now, the RMB is considerably less liquid than the EUR.

That more than 50 countries have adopted the RMB as a reserve currency is encouraging for China. However, their holdings are small and serve mainly to hedge trade obligations with China and curry favor with Beijing. Those are reasons enough to expect a growing number of countries to hold RMB reserves, giving the currency wide but thin use. This will undoubtedly deepen as the RMB becomes more liquid. However, to vie for the role of primary reserve currency, the RMB would have to be as liquid as the USD. As well, the PBOC would have to be as trusted as the US Fed. Barring a "black swan" event such as a financial catastrophe or a major war, neither is likely for decades. By 2020, we expect the RMB to be among the top five most-traded currencies globally and foreign holdings of Chinese government and policy bank bonds may well exceed 10% of the 2014 global reserves. Should half of this foreign holding be under reserve asset managers, by 2020 it could reach 5% of the 2014 global reserves (but a smaller proportion of 2020 global reserves).

Although the reserve use of the RMB is small and likely to grow only slowly, swap arrangements will provide some of the stabilizing function normally associated with more significant FX reserves. (This is beyond the trade and other commercial roles the swaps underpin.) As stated above, the PBOC has entered into 28 active swaps worth more than RMB3 trillion (USD498.5 billion). By comparison, due to legislative restrictions, the US Fed has only five standing liquidity swaps – with Canada, the Eurozone, Japan, Switzerland and the UK – worth USD333 billion.

Such large-scale swaps are important for China for three reasons. First, they are increasingly seen as vital crisis-management tools. Second, global confidence in the US Fed has derived in large part from its willingness and ability to offer swaps in a crisis. However, in the aftermath of the 1994 Mexican crisis, the US Congress curtailed the Fed's and the Treasury's power to act. Thus, the USA failed to offer swaps to Thailand or Indonesia in 1997–1998 or to China in 2008. Third, the wisdom of Beijing's decision to offer so many swaps has yet to be tested by a major financial crisis.

THE EMERGING MONETARY ORDER

Reaction to the RMB's rapid rise has ranged from accommodative and supportive, to some anxiety about China's long-term aims. Asian markets, for example, have been quick to create – and profit from – settlement centers. Asian businesses have also jumped at the chance to reduce settlement costs by eliminating the USD "middleman." Further abroad, London was the first city outside Asia to be approved as a settlement and trading center, with the UK even conducting a small RMB bond issue for its FX reserves to support RMB instruments. Frankfurt and Paris have also opened settlement centers in quick succession.

France clearly resents the RMB's potential threat to the EUR's role, but can do little about it. US declaratory policy is to do no more than follow the markets. It will facilitate a settlement center if businesses request it and won't create any regulatory hurdles. However, it will not actively pursue the business.

In contrast to its fairly neutral stance in this area, the USA is more actively opposed to the likely longer-term impact of the RMB's rise on the global monetary system. Senior US government officials, for example, have foreshadowed opposition to the RMB's inclusion in the SDR basket of currencies in October 2015. As well, the US Congress has resisted proposed reforms of the IMF and the World Bank, despite the increasingly obvious need to modernize and expand these institutions. Further, the USA has tried to stymie China's development of alternatives such as the AIIB.

Meanwhile, the USA's use of sanctions against the likes of Russia and Iran, as well as punitive action against colluding foreign banks, is driving significant currency flows away from the USD and US-supported clearing institutions. These include CLS (formerly Continuous Linked Settlement) and the Belgium-based SWIFT.

China's policy has been to eschew transactions that could antagonize the USA. Indeed, Chinese institutions have been among the least problematic for US policy. Nonetheless, its banks are conscious of the risks of USD-based transactions, particularly given the example of French bank BNP Paribas, which was fined USD8.9 billion in mid-2014 for helping clients violate US sanctions.

It is not inconceivable that at some point a critical mass of international institutions will begin to desert USD-based transactions and systems because they either have already fallen foul of US sanctions or fear that they may do so. The logical result would be a wholesale shift to the RMB.

The GFC was a watershed for the world's financial system. Since 1944, it has been based on US leadership, the USD, the Bretton Woods institutions and an open, loosely regulated structure. There was nearuniversal consensus that this provided the optimal path to prosperity, especially for emerging markets. Now, in the aftermath of that world-shaking crisis, there is deepening skepticism and demand for fundamental change.

This has been exacerbated by growing disenchantment with the US Fed and its inherent conflict of interests. As noted above, the failure of the USA to offer swaps to Thailand or Indonesia in 1997–1998, or to China in 2008, has shaken confidence in the institution. This is especially troubling, given that it is a key pillar of the USD-based system. For Asian countries, in particular, the US Fed's failure to act on these occasions underscores that, although it is de facto the world's central bank, its legal requirement to focus on US employment and financial stability can mean that it ignores potentially severe damage to other economies.

This inherent conflict manifests itself in the US Fed's focus on keeping post-GFC domestic interest rates low to the detriment of emerging economies, which are left to struggle with housing bubbles and staple-commodities inflation caused by the resulting tsunami of money seeking better returns.

Little wonder China's development of alternative institutions has received such strong and widespread support. These include the AIIB, the NDB and the Silk Road Fund, as well as the CDB's international operations and the PBOC's numerous swap arrangements noted above. Collectively, they will have more development clout than the traditional US-led group of institutions that includes the IMF, the World Bank and the Asian Development Bank (ADB).

The USA's failure to win support for its opposition to the AIIB – even from among its key allies, bar Japan – can be seen as a reflection of global disgruntlement with its self-serving approach. On the one hand, it rejects much-needed reforms of the old institutions. On the other hand, it seeks to stymie new ones. Meanwhile, it exploits the prevailing USD-based system to its advantage to the detriment of other economies.

For now, barring financial or geopolitical calamity, the USD position is unassailable. The old system has tremendous inertia and no alternative offers the liquidity of the USD and even the somewhat tarnished credibility of the US Fed. Despite inroads by the RMB, more than 80% of global trade is denominated in USD and it is used for about 75% of settlements.

Nonetheless, US resistance to a growing role for China in global financial governance risks precipitating a schism – unlikely as that may be for many years. In the meantime, a combination of US policies leads to incremental reduction of reliance on the USD and its related institutions: congressional restrictions on reform of the Bretton Woods institutions and on Fed use of swaps to ameliorate foreign emergencies; widespread Asian resentment of US-backed punitive IMF policies after the Asian financial crisis; disillusionment with the existing system after the GFC; proliferation of US financial sanctions; and strong emerging market reactions against the Fed's post-GFC policies.

Having said that, for some time there will be no viable alternative to the USD-based system and even in the long run, schism is hardly inevitable. Some of the US policies that antagonize other countries are based on congressional alignments and could be reversed under a different Congress and stronger executive leadership. Nothing that China has done so far is in any way inconsistent with the orderly expansion of an integrated global financial system.

Meanwhile, aside from the reserve currency role, most aspects of RMB internationalization will continue at a rapid rate – dependent not so much on other countries' approval or otherwise, but the pace of Chinese reform.