

RMB's march to reserve currency status

UBS Asset Management | **A reality check**



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When the International Monetary Fund (IMF) announced in 2015 that it would include the Chinese renminbi (RMB) as a reserve currency in its Special Drawing Rights (SDR) basket the following year, it raised expectations that the RMB could establish itself as a reserve currency relatively quickly.

Progress has been slow so far, but we believe the RMB's march to reserve currency status is on course and will accelerate with the gradual opening up of its domestic bond market.

Time for a reality check

In the 2015 UBS Reserve Management Survey, more than 70 percent of respondents indicated that they were invested or had considered investing in the RMB. Three years later, according to official data from the IMF, the RMB represents 1.2 percent of global reserves, less than the Canadian and Australian dollars and well below the share of leading reserve currencies such as the dollar and the euro. In addition, the use of the RMB in international payments has not picked up. The march of the RMB to establish itself as a reserve currency appears to be slower than expected.

We therefore think it is time for a reality check on the RMB's past, present and future role as a reserve currency. Which factors are slowing down the allocation of global reserves to RMB-denominated

assets? How and why do central banks invest into RMB assets? What is the medium-to-long term outlook for the rise of the RMB towards a level of 10 percent of global reserves?

In order to answer these questions, we looked at the most recent statistics on the use of the RMB, and we also conducted interviews with several central banks in the first months of 2018 to ask for detailed feedback on their current and future RMB holdings. We would like to thank the institutions that have provided us with their feedback on these issues.

The insights we gained from these institutions, along with current RMB use statistics, lead us to several conclusions: The RMB should establish itself as a fully accepted

international reserve currency; it is no longer a question of if, but when. The slow rise in the share of RMB in global reserves reflects ongoing concerns about the Chinese economy, the RMB exchange rate policy and the operational issues still surrounding the RMB onshore bond markets. History around the rise of the sterling, the euro and more importantly, the dollar shows that the size of the economy and international openness are necessary but not sufficient conditions. Macroeconomic stability and the development of large and liquid capital markets, particularly bond markets, are also crucial. China is making significant progress in this regard and this should provide further impetus to the rise of the RMB in a multipolar currency system centered around the dollar, the euro and the Chinese currency.

China's motivation behind ongoing RMB internationalization

Taking a more prominent position in global politics and the global economy was a core theme that came out of Xi Jinping's proclamation of a 'new era' for China at the 2017 National Party Congress Meeting in Beijing.

China already is a significant force in world trade as the second largest economy, accounting for 14% of global commerce. Establishing the RMB as a reserve currency would therefore confirm China's increased role in global affairs and its arrival as a major global power.

In addition to furthering China's geopolitical ambitions, the establishment of the RMB as a reserve currency would provide China with the following financial and economic benefits:

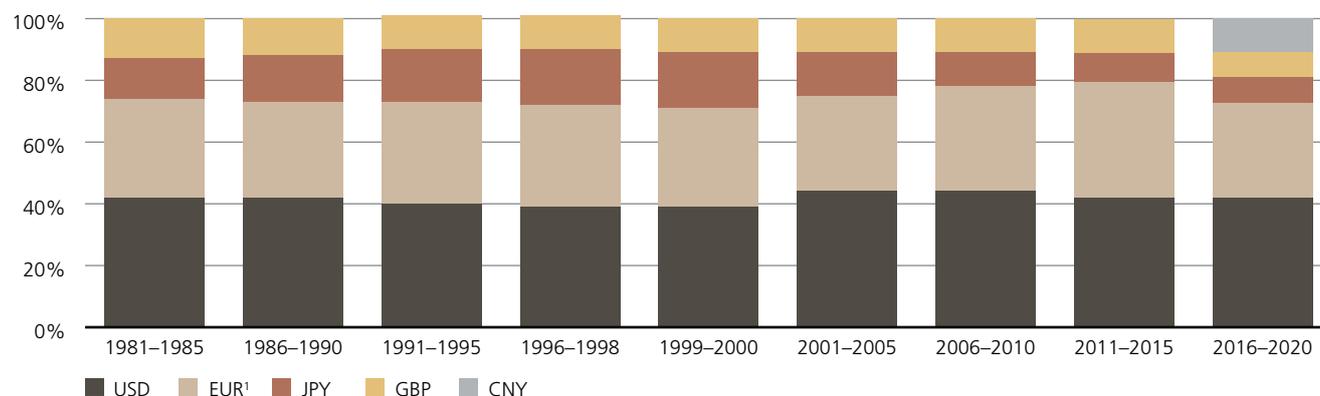
Lower borrowing costs

The Chinese government would benefit from lower transaction costs as demand for its bonds would not only be driven by yield and maturity considerations, but also by global currency demand. Increased demand for bonds would cascade through the economy and lower borrowing costs in general.

Increased liquidity in domestic markets

Both the government and the private sector would be able to issue most of their debt in RMB, removing potential exchange rate risks. Establishing the RMB as a reserve currency would therefore increase liquidity in domestic capital markets, and create more diverse financing options.

Chart 1 – Historic weights in the SDR basket, %



Source: IMF 2017.
1 DEM/FRF until 1999

Reduced reliance on the USD

The global financial system is largely dominated by the dollar or systems that rely on the USD. Trading in RMB in China-backed financial systems and infrastructure would minimize China's risks in its dealings with the US, for instance by reducing pressure that the US can exercise through trade restrictions and sanctions.

Lower need to hold massive foreign currency reserves

An increased use of the RMB in international payments would reduce the need to hold a large amount of foreign exchange to protect the RMB against volatility.

The 2016's official inclusion of the RMB into the IMF's SDR basket marked just one step - albeit a significant one - along the road of China's strategy to make the RMB a fully-convertible international

currency that operates as a reserve currency. The international financial establishment with the IMF in the lead basically acknowledged the progress made by China in terms of financial liberalization and welcomed the RMB into the club of leading international currencies. The RMB entered the International Monetary Fund's (IMF) SDR basket with a weight of nearly 11%, making the Chinese currency the third international currency after the dollar and the euro.

Progress to date

The inclusion of the RMB in the SDR basket raised expectations that the Chinese currency would quickly establish itself as an international currency in global payments and international reserve composition alongside the dollar and the euro. Historical stability in the RMB exchange rate coupled with the low yield environment prevailing in the dollar and euro economies provided a fertile ground for diversification of international reserves into a currency providing higher yields and better reflecting the changed structure of the global economy and international trade.

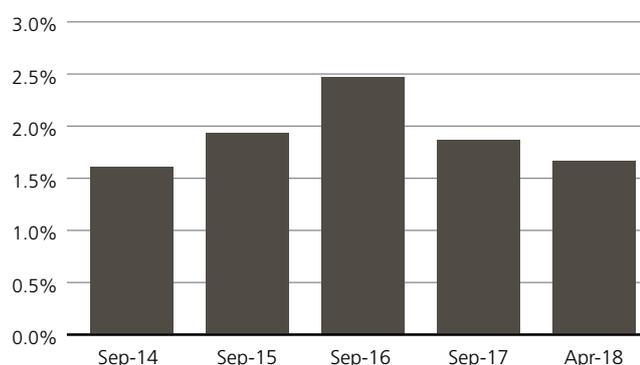
However, the adoption of the RMB as an international currency has been relatively slow so far. This is true for both the use of the RMB in international payments and as a store of value in global reserves.

Data from the Society for Worldwide Interbank Financial Telecommunication (SWIFT) shows that the use of the RMB in international transactions, after a rise in 2015-16, slowed down in 2017. And the decline continued throughout the early part of 2018: RMB utilization is now the sixth-highest with a global share of 1.7

percent, behind the Canadian dollar and the Japanese yen. Another indicator on the international use, RMB offshore holdings (Chart 3), also shows a decline after peaking in June 2015. Offshore RMB deposits in Taiwan, Hong Kong, London and Singapore have fallen in recent years with the largest drop experienced in Hong Kong and Macau.

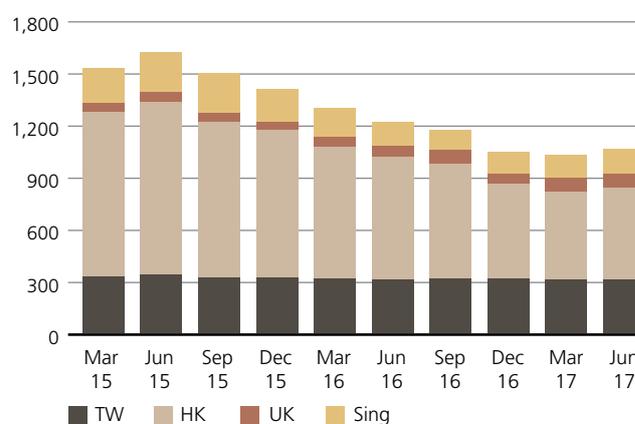
The slowdown in the international use of the RMB may reflect several factors, including some seasonal ones. However, it appears to be linked to the "mini" depreciation

**Chart 2 – RMB as % share of Global Trade Settlement
Sep 2014 – Apr 2018**



Source: SWIFT, 2018.

**Chart 3 – Size of offshore RMB deposits
RMB bn**



Source: HKMA, Taiwan Central Bank, MAS, Bank of England, 2018.

of the RMB that occurred in mid-2015. The 2015 devaluation and the subsequent use of Chinese reserves to support the RMB as well as capital outflow restrictions on Chinese corporates and individuals also played a role, as investors feared a reversal in the secular revaluation trend of the RMB and a slowdown in the internationalization of the Chinese currency.

According to IMF data, the percentage of RMB among allocated (i.e. reported) foreign exchange

reserve holdings remained pretty constant over the last few years, at slightly above 1%, and well below the share even of "secondary" reserve currencies such as the British pound and the Japanese yen. According to this data, only about USD 130bn of global reserves is invested into RMB-denominated deposits and securities, a very small amount when compared to the euro (USD 2tr) and the US dollar (USD 6.3tr). Even when exchange rate movements are accounted for, it appears that central banks have

been relatively slow in shifting part of their reserves into the Chinese currency.

The annual UBS Reserve Management Survey among central banks comes to a similar conclusion, signaling a drop in central banks' intentions to invest more in RMB in 2016/17 (see sidebar on UBS survey for more details) amid continuing concerns over a Chinese hard landing.

Chart 4 – Development of IMF COVER data (% of allocated reserves)

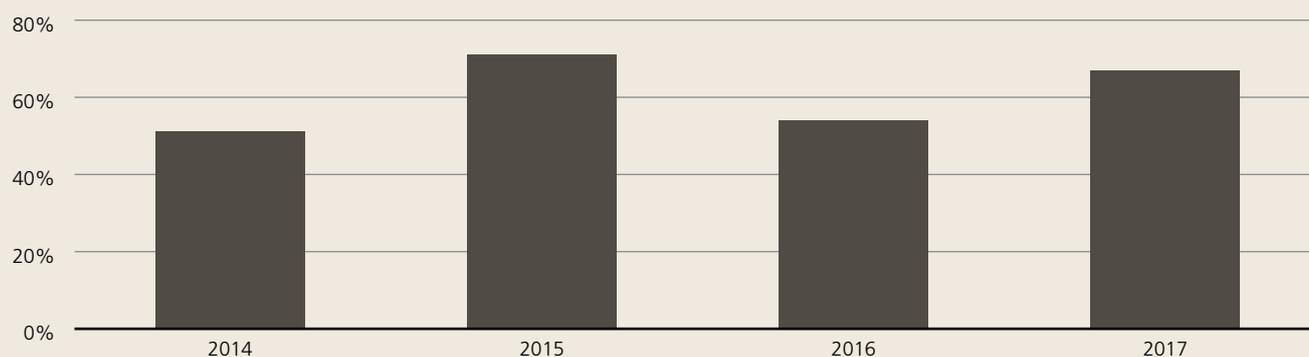
	1995	2000	2005	2010	2011	2012	2013	2014	2015	2016	1Q 2017	2Q 2017	3Q 2017	4Q 2017
US dollar	59.0%	71.1%	66.5%	61.8%	62.4%	61.2%	61.2%	62.8%	64.1%	65.3%	64.6%	63.8%	63.5%	62.7%
Euro ¹	27.0%	18.3%	23.9%	26.0%	24.7%	24.2%	24.4%	22.2%	19.9%	19.1%	19.3%	19.9%	20.0%	20.1%
British pound	2.1%	2.8%	3.7%	3.9%	3.8%	4.0%	4.1%	3.8%	4.9%	4.3%	4.3%	4.4%	4.5%	4.5%
Japanese yen	6.8%	6.1%	4.0%	3.7%	3.6%	4.0%	3.9%	3.9%	4.1%	3.9%	4.5%	4.6%	4.5%	4.9%
Canadian dollar	–	–	–	–	–	1.5%	1.7%	1.9%	1.9%	1.9%	1.9%	1.9%	2.0%	2.0%
Australian dollar	–	–	–	–	–	1.5%	1.6%	1.8%	1.9%	1.7%	1.8%	1.8%	1.8%	1.8%
Renminbi	–	–	–	–	–	–	–	–	–	1.1%	1.1%	1.1%	1.1%	1.2%
Swiss franc	0.3%	0.3%	0.1%	0.1%	0.1%	0.3%	0.2%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%
Other currencies	–	1.5%	1.7%	4.4%	5.4%	3.3%	2.9%	3.1%	3.0%	2.4%	2.4%	2.3%	2.4%	2.5%

Source: IMF COFER as of April 2018.

¹ ECU and other European currencies before the introduction of the euro

The Annual UBS Reserve Management Survey

Chart 5 – Percentage of survey respondents that are invested, or consider investing, in the RMB, 2014–2017



Source: UBS Reserve Management Survey, June 2017.

UBS conducts an annual survey in conjunction with its annual Reserve Manager Seminar at Wolfsberg, Switzerland. With 23 years of comprehensive survey history and polling participants that represent a significant share of global reserves, we believe the data from this survey is among the most authoritative depictions of official reserve management activities available.

After a multi-year increase, the percentage of survey respondents that are invested, or consider investing, in the RMB, has stagnated over the past 3 years, falling slightly from an all-time high in 2015 of 71% to 67% in 2017. Key reasons for investing in the RMB mentioned by survey participants

were diversification benefits, yield enhancement, the process of SDR inclusion as well as the general purpose of holding a currency with increasing use in international markets. Major concerns raised by survey participants were operational difficulties, uncertainties surrounding the Chinese economy as well as a lack of foreign trade relations with China.

It should be further noted that survey participants are asked each year to indicate their main concerns impacting the global economy. The scenario of a 'hard landing' in China jumped to the top of the list in 2016 and was at a lower, but still relatively high third place in the 2017 survey.

Finally, in the currency outlook part of the survey, participants were asked how they expect their currency allocations to change over the next year. A relatively strong 13% of reserve managers indicated that they expect an increase in their RMB holdings. In addition, no respondents indicated a decrease in their allocations, implying a relatively upbeat scenario for RMB reserve developments in 2017, coming from low level. Overall, the survey indicates that in 2017, central banks have become less concerned about the Chinese economy and the exchange rate, reflecting the stability of the RMB during the year.

Why has the adoption of the RMB as a reserve currency been slow so far?

Initial optimism about a quick establishment of the RMB as a reserve currency alongside the US dollar and the euro was probably misplaced. The inclusion of the RMB in the SDR was a milestone for RMB's internationalization but was largely symbolic. Ultimately the rise of a currency to reserve status depends on investors' demand for assets denominated in that currency, used either as a means of payment in international transactions or as store of value in global reserves.

The international position of a currency is derived primarily from the relative size of its underlying economy, its openness and the size

and depth of its financial markets, particularly fixed income markets. It is reinforced by the legal system, the military reach of the issuing government and long-term stability in its purchasing power, which is largely determined by how sound and sustainable its macroeconomic and fiscal fundamentals are.

How does China score when compared to the US, Europe, Japan and the UK on these key factors? The Chinese economy is already the second largest in the world and its economy is more open to international trade than those of the US and Japan (as measured by the percentage of imports and exports

of GDP). In terms of hard power, China is already the second largest military spender after the US. Its soft power lags behind that of the US and Europe (as measured for example by the Portland Soft Power 30 index), but the Chinese influence in global affairs is rising fast and will continue rising in the future, particularly in Asia (for example, the One Belt One Road Initiative is an important tool in this regard – see Appendix II for more detail).

From a macroeconomic perspective, in recent rankings by the World Economic Forum (WEF), the Chinese economy scores better than the US (high current account deficit) and

Chart 6

	Size GDP 2017 USD bn	Openness				Macro & Institutional setup			Financial institutions			Military spending 2017 USD bn	Portland Soft Power 30 Index 2017 rank
		Imports/Exports (%GDP)		Inv. Freedom	Financial Freedom	WEF Competitiveness 2017			WEF financial development index				
		Imports	Exports	Heritage Index 2017	Institutions	Infrastructure	Macro environment ¹	Fin market development	Sec exchange regulation	Legal rights index			
US	18569	14.7	11.8	85.0	80.0	20	9	83	2	18	4	610	3
Japan	4939	16.0	16.5	70.0	60.0	17	4	93	20	12	85	45	6
Euro area	11616												
– Germany	3467	39.4	46.4	80.0	70.0	21	10	12	12	24	49	44	4
– Italy	1851	27.4	30.4	85.0	50.0	95	27	96	116	116	106	29	13
UK	2629	31.6	27.9	90.0	80.0	12	11	68	13	20	30	47	2
China	11218	18.2	20.6	25.0	20.0	41	46	17	48	60	85	228	25

Source: IMF 2018. World Bank 2018. Heritage Foundation 2018 Index of Economic Freedom. WEF Global Competitiveness Report 2017-2018. Portland Soft Power 30 Index, 2018.

1 Includes budget situation, debt levels, inflation and credit rating score

Japan (high public debt). Its growth rate, albeit lower than in the past, remains well above that of the majority of advanced economies. One should always keep in mind that China still runs a large current account surplus, contrary to the US and the UK, which run structural external deficits.

In recent years, China's macro fundamentals have deteriorated somewhat due to its rising level of debt, structural declines in its growth rate and exchange rate volatility. In 2015, the People's Bank of China (PBoC) reset its exchange rate policy by dropping the 2% band around the peg and made the daily midpoint determination simpler (i.e. using the previous day's closing rate).

After the change, the RMB dropped sharply for two consecutive days, and the government had to step in, propping up the currency and sending a message to the market that it was not prepared to follow through on its changes. In the context of large-scale interventions in the domestic stock market in June 2015, plus the imposition of tighter controls on outbound investments, international investors questioned China's intent to reform its financial markets.

The imposition of controls to stop capital outflows and stabilize the RMB exchange rate dented the trust of international investors on the commitment of China to RMB internationalization. A KPMG survey in early 2017 showed that 40% predicted a fully convertible

RMB with no restrictions within five years, a marked decrease from the 70% saying so in 2015, and 20% of respondents said they expected full convertibility only in 10 years. Concerns about the RMB exchange rate policy and repatriation of assets during periods of financial stress are also mentioned by some surveyed central banks (see Appendix II for more details) as an obstacle to invest more in the domestic RMB bond market.

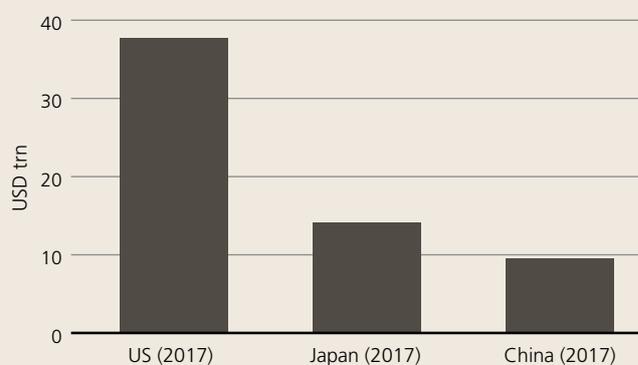
The major area where China lags behind the US and Europe is in the development of its domestic financial markets. According to our survey of central banks, the complexity of investing in domestic bond markets was mentioned as the main challenge by virtually all the participants. Low transparency,

China's onshore bond market

China's domestic bond market currently ranks as the third largest in the world (after the US and Japan), with an estimated market value of around USD 10 trillion and growing. As China becomes more integrated globally, and its market retains its attractiveness, we expect the RMB onshore market to overtake Japan as the world's second largest bond market in the coming years due to various catalysts.

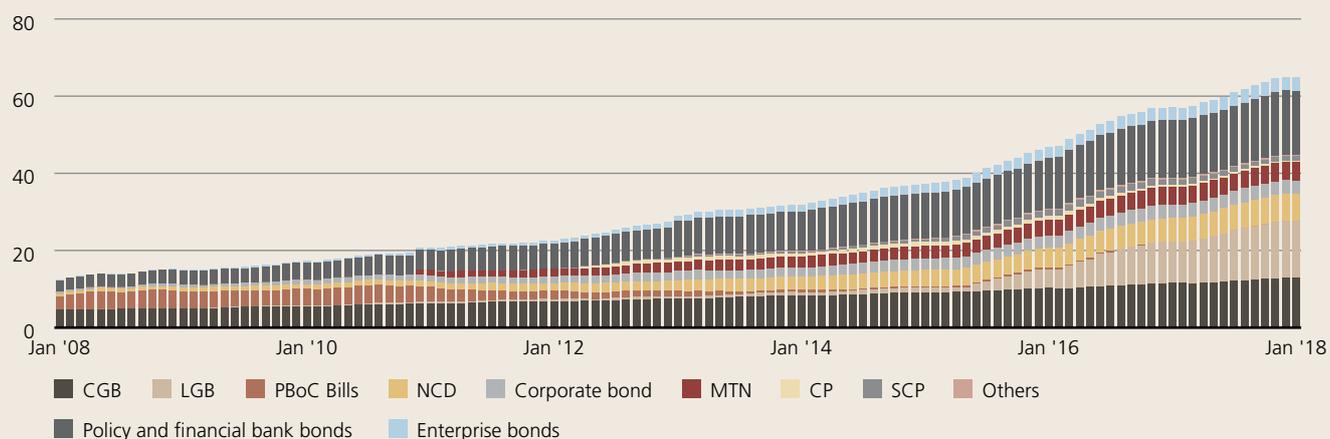
Investors include commercial banks, asset management companies, insurance companies, securities houses, finance companies and other institutional investors, as well as overseas investors. Rates products (Central and local government bonds, as well as Policy financial bonds) account for around 55 percent of market share.

Chart 7 – Major bond markets compared (USD trn)



Source: Bloomberg, 2018.

Chart 8 – China onshore bonds outstanding (RMB trn), Jan 2008–Jan 2018



Source: Wind, February 2018.

Since 2015, China’s regulators have taken key steps to allow financial institutions to access the interbank bond market. Offshore financial institutions qualifying as medium- to long-term investors can now access the China’s Interbank Bond Market (CIBM program). In addition, quota limits have been removed and filing processes have been simplified.

In February 2017, SAFE allowed foreign investors to use onshore FX derivatives to hedge the currency risk related to their bond positions. Finally, in July 2017, Bond Connect was formally launched and will further facilitate the cross border flow into the China onshore bond market.

As global indices begin to phase-in China’s bond markets into their benchmarks, demand for onshore bonds will likely remain robust. Citibank and Bloomberg included Chinese bonds in three of its major indices in 2017, and we believe that it is only a matter of time before Chinese bonds represent a meaningful share in major global bond indices such as the Bloomberg–Barclays Global Aggregate Index and the World Government Bond Index.

Chart 9 – Summary of bond market liberalization events since 2015

Time	Event
2015	Many RMB offshore clearing centers were established during 2013-2015, and the RQFII Scheme has been further expanded
June 3, 2015	PBoC allowed offshore RMB clearing banks to trade on repo products
July 14, 2015	PBoC issued new rules that foreign central banks, sovereign wealth funds and international financial organizations will no longer need pre-approval to access the interbank bond market, and can trade on cash bond, bond lending, bond forward, FRA and IRS
Dec 2015	RQFII program extended to Thailand and UAE (RMB 50bn quota for both)
Feb 4, 2016	QFII rules eased by SAFE (expanded investment quota for individual QFIIs, improved approvals and fund transfer processes)
Feb 24, 2016	Onshore interbank bond market opened to foreign institutional investors with no quota restrictions
May 27, 2016	PBoC and SAFE unveiled more detailed guidelines to help implementation of February’s opening
June 7, 2016	RQFII program extended to US (RMB 250bn quota)
Aug 26, 2016	World Bank issued first SDR bond in China (priced in SDR, settled in RMB)
Sep 5, 2016	RQFII rules eased by SAFE, matching earlier relaxation of QFII rules
Sep 23, 2016	National Bank of Canada given approval to issue up to RMB 5bn of Panda bonds (RMB-denominated bonds) in China
Dec 21, 2016	RQFII program extended to Ireland (RMB 50bn quota)
Feb 27, 2017	SAFE granted access to foreign investors to onshore FX derivatives
July 3, 2017	Bond Connect was formally launched

Source: UBS 2018.

The opening of China’s onshore bond market therefore offers an attractive route for investors looking to adjust to the RMB’s emergence as a global reserve currency and will be a key facilitator for the internationalization of the RMB going forward.

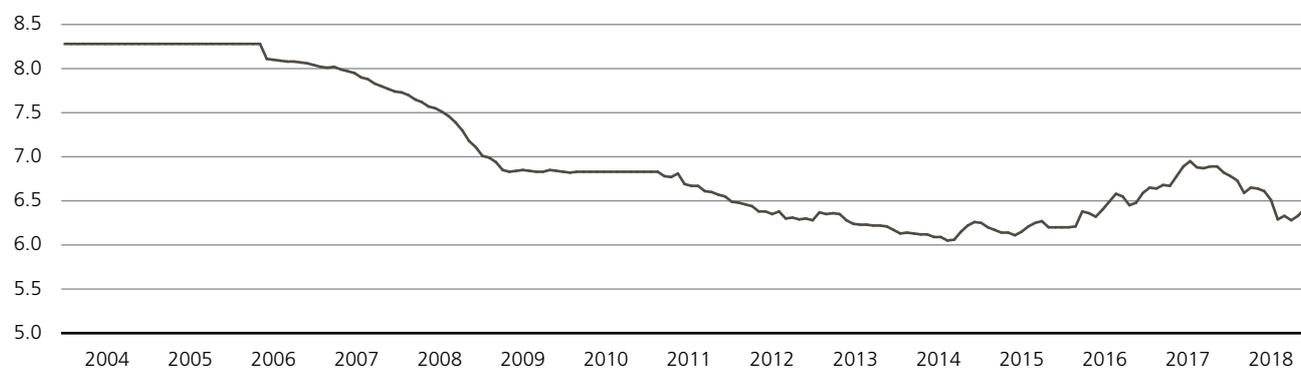
operational restrictions on the liquidation of securities and complexity in dealing with financial intermediaries other than the PBoC are also cited as main obstacles.

The Chinese bond market is very large (see box/sidebar for details) and is growing very fast. However, China's bond market liberalization

really accelerated in 2015 with a gradual opening of the China Interbank Bond Market (CIBM) to medium- to long-term investors, which continued in the following years. Foreign investors were first allowed to use onshore FX derivatives to hedge the currency in 2017 and Bond Connect was launched in July 2017. The inclusion

of the RMB onshore fixed income in leading global indexes is happening now. Central banks, like other institutional investors, are in the process of familiarizing themselves with the RMB onshore bond market and this is inevitably going to be a gradual learning process.

Chart 10 – USDCNY Exchange Rate, since 2003



Source: Bloomberg, May 2018.

RMB's march to reserve currency status: on course and accelerating

Our view is that two factors will determine the pace of the RMB's march to reserve currency status over the next years: a) macroeconomic stability and b) the development and opening of its financial markets.

Macroeconomic concerns about slowing economic growth, exchange rate volatility and capital outflows and the apparent postponement of full convertibility of the RMB have dented the appetite of central banks for RMB assets in 2015-17.

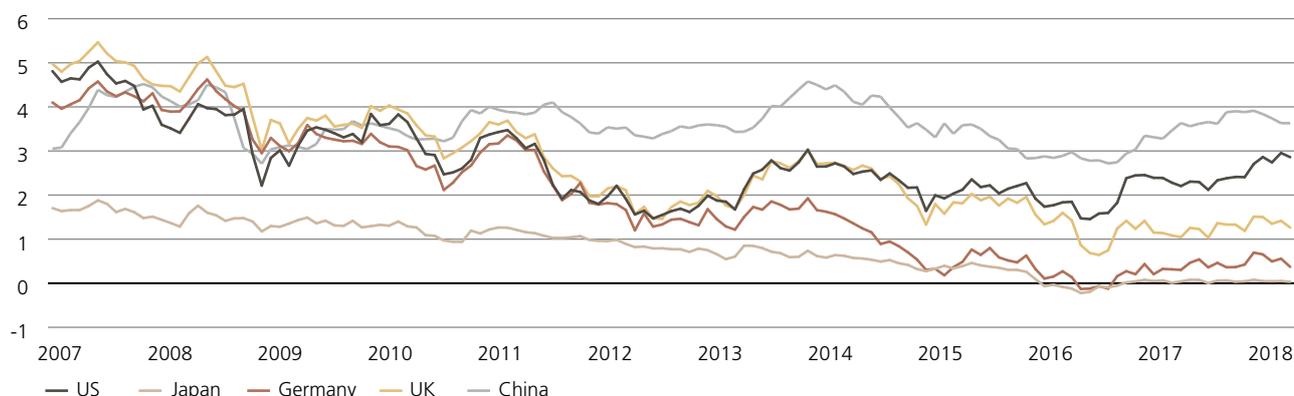
The experience of the Euro area provides an important lesson: the share of the euro in global reserves never recovered from the fiscal turmoil in 2012. Financial and fiscal governance concerns over the functioning of the Eurozone are still preventing the euro from challenging the US dollar, a role that many expected the euro to assume following the introduction of the new currency.

Macroeconomic concerns about China have partly dissipated over

recent months as growth remained robust, capital outflows slowed and the RMB exchange rate stabilized. If China is capable of addressing some of the main concerns such as the level of debt and manages to land the economy on a lower but sustainable growth path, the RMB is likely to attract more capital from central banks and international investors.

In such a scenario, the investment case for the RMB remains strong even if US and global rates rise

Chart 11 – Nominal 10-year yields (%): an international comparison, 2007-April 2018



Source: Bloomberg, April 2018.

from current levels. In a benign macroeconomic scenario with a large current account surplus and strong growth, the RMB is likely to resume its historical revaluation trend. It is true that the RMB-USD 10-year interest rate differential is falling as US interest rates rise, but the interest rate differential with the euro and the yen is likely to remain large over the medium term. Central banks search for diversification across currencies and interest rate differentials are only one of the factors they consider when allocating reserves to a new currency.

The area where China is making tremendous progress is in the development and opening up of its financial markets. According to the PBOC, foreign holdings of Chinese onshore fixed income assets doubled over the last two years, reaching nearly USD 200bn by 2017 year-end. We believe that the recent measures to open up the onshore bond market

to qualified foreign investors and the inclusion of the RMB in major international bond indexes played a very important role.

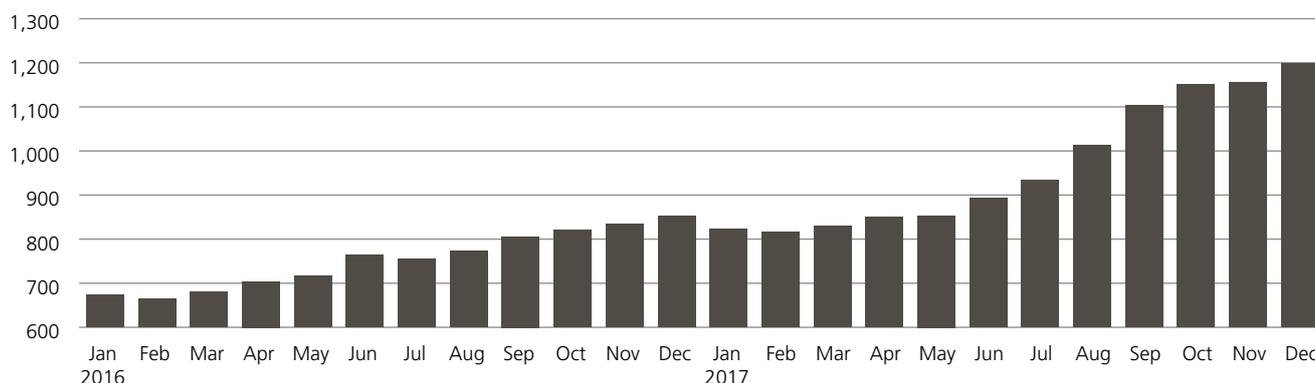
Foreign investors, including central banks and sovereign wealth funds (SWFs), currently own less than two percent of the Chinese domestic bond market. If China continues improving stability and liquidity in the domestic bond market, this share should increase relatively fast. According to a number of interviews that we conducted among central banks (see Appendix I for details), a simplification of the mechanism to enter and exit the RMB market, improvements of the market place, Western time zone trading hours, electronic trading, more efficient coordination with custodians and better communication with investors are key improvements which should be considered.

Can a currency which is not fully convertible rise to reserve status?

China is unlikely to ensure full convertibility of the RMB anytime soon given the challenges it is facing. However, this objective may occur in the not too distant future if China continues on its gradual opening up of its capital account. The speed is likely to be determined by the performance of the Chinese economy over the medium term. From an investors' point of view, it should also be noted that according to the Revised Guidelines for Foreign Exchange Reserve Management (IMF, 2014) full convertibility is not a necessary precondition for investing in a new currency: 'Reserve management [...] should be conducted in markets that have sufficient depth and liquidity, and can process transactions soundly and efficiently' (Guideline 44).

What is the time span required for the RMB to become the third largest reserve currency after the dollar and the euro with share of FX reserves comparable to that in

Chart 12 – Overseas Investors' Holding of Onshore China Fixed Income, Jan 2016-Mar 2018 (RMB bn)



Source: Peoples Bank of China, May 2018.

the SDR basket? From a historical perspective, the path of a currency to leading reserve status is a lengthy process. This was indeed the case of the USD when it replaced the sterling as the leading international currency in the interwar period; it happened after several years of coexistence with the sterling, the French franc and the Deutsche Mark (ECB, 2012).

The rise of the RMB will therefore likely be a gradual and relatively long process. The RMB will not challenge the US dollar and the euro to become the world dominant currency but it is more likely to gradually gain ground in a multipolar currency system (Eichengreen, 2017). In the past, a single currency, first the sterling and later the US dollar, dominated global markets, largely as a result of network externalities (i.e. the convenience to use a currency which everybody else uses). In the current world, network externalities

have become less relevant thanks to modern financial technology: dealing with multiple currencies is no longer such a big technical issue. Therefore, it is well possible that several currencies can simultaneously serve as units of accounts, means of payment and store of value. The rise of the RMB in such a multipolar system could actually be much faster than in the previous historical periods.

The speed of the RMB's march to leading reserve currency status is not only dependent on how the Chinese economy will perform and how fast full convertibility will eventually be reached. It will also depend on what happens with the other two currencies that are currently dominating the international financial system, the euro and the US dollar. The euro faces several structural issues and the recent events surrounding Italy are a reminder that these issues have not been resolved yet. The

euro share in global reserves is much lower than its share in the SDR Basket. Until these structural issues are resolved, the euro is unlikely to increase its share of international payments and global reserves. Furthermore, the ECB has never pursued an increased use of the international role of the euro as a policy goal.

With regards to the US dollar, which is still considered to be the dominant international currency and the ultimate safe haven in periods of financial stress, politics could have a negative impact over the long term. Rising public debt, protectionism and weakening institutions could dent the trust of international investors in the dollar, paving the way for the RMB to eat into its share over the next decade (Prasad, 2018).

Appendix I – Interviews with selected Central Banks

Written interview questions to selected central banks (March 2018)

RMB for central banks

- What are the key drivers for your institution to invest in RMB fixed income? (e.g. trade relations, yield enhancement, diversification away from other currencies, index & benchmark inclusion, SDR inclusion?)
- What are the key reasons for your institution against investments in the RMB fixed income? (Chinese economy risk, deleveraging, rising rates, RMB depreciation, operational issues)
- Would you consider any other RMB-denominated asset classes than debt? (and which?)

Your current RMB holdings

- Do you invest into RMB? Is it offshore or onshore?
- Since when are you invested and how did you build it up? (e.g. with a single large allocation, or gradual allocations?)
- Going forward, do you plan to increase or decrease RMB exposure in your portfolio?

RMB exchange rate outlook

- What is your outlook for the CNY/USD rate as well as Chinese interest rates over the next 12 months?
- How are you viewing the PBoC's decision to manage the currency to the traded weighted basket (CFETS) compared to other countries who tend to manage predominately relative to a particular cross rate such as the euro or USD?

Implementation & Challenges

- What do you consider to be the biggest operational challenges when investing in RMB onshore (for you as well as other central banks in general)?
- Do you exclusively deal with the PBoC as your dealing counterparty and custodian? If not has this changed recently or do you expect this to change?
- Given differences in dealing spreads for on-the-run and off-the-run bonds reflecting different liquidity levels, how have you been navigating this aspect of the market?
- What could be done to make investments in RMB instruments easier (by the Chinese government / by international private and public financial institutions)?
- Are you considering to use external asset managers for investing into RMB onshore fixed income?

Aggregated answers

Why do central banks invest in RMB? And what prevents them from doing so?

- 1) Central banks invest foreign exchange reserves and are in most cases restricted when it comes to FX hedging. Therefore, the main driver guiding investments in RMB is increasing diversification towards a broader basket of international currencies. In addition, the size and liquidity of the Chinese bond market as well as higher yield levels were mentioned as important differentiating factors.
- 2) The main obstacles for investing in RMB were possible restrictions to liquidate financial positions, and operational issues related to the CIBM. In addition, central banks raised the issue of low economic transparency.

How do central banks invest?

- 1) The majority of central banks that indicated that they are invested in RMB are currently holding a combination of offshore holdings in the form of bank deposits and offshore CNH bonds, and onshore sovereign bonds denominated in CNY.
- 2) The majority of participating central banks indicated that they included RMB as part of their reserve composition only after 2012. Most preferred a very gradual investment approach where they started with CNH bank deposits, followed by CNH bonds, and finally included investments in CNY government bonds.
- 3) When it comes to other assets denominated in RMB, survey participants see it as considerably more challenging to judge the financial situation of non-government issuers in China. Still, among those diversifying into equities, several participants indicated that they are already invested in Chinese equities or consider making them eligible following their inclusion in major indices.

Challenges & Implementation issues

- 1) The complexity of investing in RMB, in particular onshore, was described as a challenge by all participants. The need to understand and deal with operational idiosyncrasies of the market, including market quoting, transaction costs and bid/ask spreads, settlement risks, the onshore legal framework, custodian functioning, operational restrictions regarding the liquidation of securities, and the competitive pricing among counterparties, were mentioned as main challenges when investing in RMB onshore through intermediaries other than PBoC.
- 2) Therefore, many central banks still exclusively deal with the PBoC when trading onshore government bonds. However, some are analyzing trading with additional counterparts directly on the CIBM, or are already dealing with local Chinese banks. One Central Bank indicated that it was not possible for them to accept the conditions of the PBoC standard agreement.
- 3) Central banks tend to invest 'passively', holding positions until maturity. They still prefer on-the-run issues for liquidity reasons, but are open to the idea of trading off-the-run bonds as a relative value trade and due to higher yields.
- 4) Some central banks mentioned that they were not able to access the market with their current custodians, and that they consider Chinese onshore custody and trading procedures to be less standardized than in many other jurisdictions, including emerging economies.
- 5) Operational challenges when it comes to FX hedging as well as repatriation concerns in times of crisis were singled out by one Central Bank as special concerns.

What could the Chinese Government do to attract further RMB investments?

- 1) In general, survey participants indicated that everything that helps market stability and liquidity should be perceived well by international investors.
- 2) Survey respondents indicated that they would welcome a simplification of the mechanisms to enter and exit the RMB market. This would incentivize investment from institutional investors, and especially central banks, who are particularly sensible to liquidity and capital preservation considerations.
- 3) Further aligning the operational and legal framework of offshore and onshore markets would facilitate the trading process.
- 4) Central Bank participants indicated that several operational considerations could make investing in RMB easier. While several participants commented on noticeable improvements that they observed over the recent years, the most-often requested improvements were:
 - Improving the market place: Trading on Western time zones and/or facilitating the process of leaving trading orders
 - Improved coordination and cooperation with international bond custodians
 - Further improvements of communication with investors, in particular on operational and regulatory topics

RMB exchange rate outlook

- 1) While heightened devaluation concerns can be considered a risk factor that plays a role in the overall decision to invest in RMB, the majority of central banks indicated that they do not base their decisions to invest in RMB on a shorter-term currency outlook.
- 2) In addition, participants mentioned that the nature of the CFETS (China Foreign Exchange Trade System) currency management with a basket coupled with certain levels of discretion make predictions more complicated.
- 3) Should the global recovery continue, commodity prices remain stable, risk aversion stay low, and central bank divergences remain in check, central banks expect the CNY to appreciate versus the dollar, and to remain stable versus a broader currency basket.

Appendix II – Key policy measures for the internationalization of the RMB

Boosting Swap Agreements and Offshore Clearing

As of 2018, the PBoC had signed currency swap agreements with 33 central banks around the world to promote internationalization of the RMB.

The proliferation of swap agreements signal that the central banking community around the world is giving strong support to China's efforts to internationalize the RMB and that trade between China and these countries in USD terms will slowly be replaced in favor of the RMB.

Aside from signing swap agreements globally, China has established various clearing centers across the globe to give investors and companies more straightforward access to the currency.

Stock & Bond Connects - Opening China's financial markets to international investors

Investors have greater access than ever before to China's financial markets after reforms to controls of its equity and fixed income markets.

The Shanghai and Shenzhen Stock Connect programs, launched in November 2014 and December 2016, respectively, have opened up over 70% of the market value of China A-shares for offshore investors and about 85% of H-shares to onshore investors.

Investors can now quickly and effectively deploy capital and are no longer subject to the lock-up and repatriation restrictions imposed by the QFII program.

Unsurprisingly, the programs have been a great success, with overseas investors' A-share holdings reaching a record RMB 1.021 trillion in September 2017, up 55% from September 2016, according to the PBoC.

Similar to the Stock Connect systems, the Bond Connect gives overseas investors direct access to China's onshore bond markets and marks a major step forward for China's integration with the global financial system.

More than access, the reforms have imposed international standards of governance and disclosure and have also brought in necessary changes such as allowing foreign ratings companies to issue ratings and bring onshore markets into line with global standards.

Following the opening of the Bond Connect program, overseas investors have significantly upped their onshore holdings. As outlined on Chart 12, at year-end 2017, overseas investors held about RMB 1.2 trillion of onshore bonds, with inflows increasing markedly in the months since the launch of the program in June 2017.

That's partly because current yields on the onshore market still look attractive on an international basis, but also because overseas investors have been underinvested due to the previous controls.

Money Market Management Reforms – Creating the Tools to Manage the Market

During the past two years, China has drastically changed the way it conducts monetary policy and has steadily brought it into line with norms in developed markets.

Essentially, the PBoC has shifted from a monetary policy system dictated by centrally-ordered lending targets to one that is governed by interest rates. In 2015, the PBoC gave banks the freedom to set their lending and deposit rates, and put less emphasis on credit quotas. To compliment this, China has introduced a policy rate, much like short-term interest rates in the US and Europe, called the seven-day 'repo' rate, which the PBoC maintains in a daily range.

Complimenting this is a new range of PBoC-created liquidity management tools, including short-term liquidity operations, standing lending facilities, medium-term lending facilities and pledged supplementary lending. These kinds of instruments give the central bank tools to inject cash at different rates and for different durations, or withdraw cash, depending on their policies at the time, and they also allow to more closely manage money markets according to interest rates, which marks a major step forward and sets the scene for China's future monetary policy framework.

Establishing a RMB-dominated payment system - CIPS

It is one thing allowing trades in a currency, but it is another thing having an international clearing platform on which to process these trades, and China's move to set up the Cross-Border Interbank Payments System (CIPS) is intended to meet this need.

Building on the domestic China National Payment System (CNAPS), the CIPS system enables cross-border RMB clearing, uses international reporting standards, handles payments in 17 time zones, and allows businesses in Asia and Europe to wire RMB funds, such as remittances, to bank accounts in China.

Formerly, such transactions were conducted by offshore bank accounts, primarily in London and Hong Kong, and routed through SWIFT (Society for Worldwide Interbank Financial Telecommunication), a network that enables global financial institutions to send and receive information about transactions.

Free Trade Zones – Testing Grounds for Future Convertibility

China now has 11 free trade zones that are pilot zones for wider infrastructure. Each of the 11 zones has an area of focus and the last 18 months have seen various

pilot projects on convertibility of RMB under capital accounts, RMB-denominated bonds, wholly foreign-owned fund management companies, interest rate liberalization, and liberalization of foreign currency limits and offshore financing.

'One Belt One Road'

The Silk Road Economic Belt and the 21st-century Maritime Silk Road are key projects to boost regional connectivity between Eurasian countries with large infrastructure projects as well as initiatives to reduce trade barriers and to achieve greater alignment of standards. Not only is China hoping to find an outlet for excess capacity that way, it is also a way to assert its influence in the region and to replace the US dollar as transaction currency of choice on a larger scale.

The promotion of the 'Petroyuan'

The 'petrodollar' can be considered a symbol for the inherent advantage that the USD gains from the fact that key commodities are priced and traded in USD, making it necessary to acquire it to conduct transactions all around the globe. It is also a unit of account for a significant number of globally operating organizations. As an example, even the Asian Infrastructure Development Bank, which has its headquarters in Beijing and was founded with considerable Chinese involvement, uses the USD as a reporting currency.

This has led to a number of initiatives on the Chinese side to establish the RMB as a global trading currency. For example, RMB-denominated oil contracts begun trading for the first time in Shanghai on March 26, 2018. Should China's oil imports get priced in RMB at some point in the future, RMB instead of USD reserves would accumulate in oil-exporting countries, which could then be spent again on Chinese exports or get 'recycled' into China's financial markets.

Appendix III – References

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