

China: Unpacking the world's third largest bond market

Exploring the pitfalls and opportunities of a rapidly evolving market

By Jim Veneau, Head of Asia Fixed Income

In this report, we provide an overview of China's onshore bond market: its size, composition, growth trajectory, recent performance and the inclusion of Renminbi (RMB) bonds in various global bond indices. We also make a case for the diversification benefits of owning Chinese bonds in a global portfolio, and conclude by advocating for the addition of onshore credit exposure through independent credit research and active portfolio management.

Highlights of the findings include:

- China has the world's second largest economy and, at circa US\$12tn¹, the world's third largest bond market. This market will continue to grow and transform with the rest of the economy, which we believe will become more capital-market oriented and open to foreign investors. While the numbers are staggering in absolute terms, foreigners currently own only 1.6% of the market (*Exhibit 4*), far less than the share of RMB in the International Monetary Fund (IMF)'s Special Drawing Rights (SDR) basket. As the latter is commonly used by central banks to guide their reserve allocation, a gradual increase of China's weight in global reserves could create a constant source of capital flows into the China bond market. We believe these policy-induced inflows will be supplemented by increased private-sector allocations, spurred by the inclusion of RMB bonds in global fixed-income benchmarks. Already, the Bloomberg-Barclays Global Aggregate Index has decided to add China's sovereign and quasi-sovereign bonds to its index universe, and other major index operators will likely follow. These are all positive technical factors that could support the growth and development of China's onshore bond market.
- Beyond gaining exposure for the purpose of tracking global indices, we believe investors will also be drawn to the market by the relative value it offers to a global fixed-income strategy. China's structurally high economic growth has historically led to higher nominal and real interest rates than developed economies. When combined with a historically low volatility of returns and limited correlation with other markets, we demonstrate that adding RMB bonds to a global fixed-income portfolio can potentially boost portfolio returns on both a total and risk-adjusted basis.
- In recent years, investing in RMB bonds has been challenging due to rising onshore interest rates and RMB depreciation. Amplified by persistent concerns over a debt-driven economic hard-landing, these market trends had muted global interests in the China bond market. However, the situation has improved since 2017, as the currency trend has reversed and onshore interest rates have stabilized. With effective macro control by Beijing and continued reforms to rebalance and de-risk the economy, we think onshore bond yields and RMB exchange rates could be stable over the medium term.
- China's onshore bond market is not only large but also diverse. Compared to government bonds, the credit market – already the second largest in the world – is where significant excess return can be generated *via* an active management of issuers' idiosyncratic risks. The latter can be challenging for global investors, given the lack of credibility of onshore credit ratings and the opacity of the market that can sometimes limit effective information gathering. We therefore believe that independent and on-the-ground credit research is essential for navigating the opportunities and challenges presented by the China credit market.

¹ As of end 2017.

China's bond market: Heading for further global integration

By Aidan Yao and Shirley Shen, Research & Investment Strategy

- China's pursuit of globalisation has been lopsided, with a successful economic integration matched by a slow financial integration hindered by its closed capital account.
- That has started to change in recent years, spearheaded by Beijing's attempt to open up its \$12tn bond market – the third largest in the world.
- While this process has been made bumpy by recent market turbulence, the stars are starting to align for the liberalisation to regain momentum. We see the inclusion of RMB bonds in global benchmarks as a powerful catalyst to trigger significant capital inflows to the China market over the coming years.

A mighty economy with little financial clout

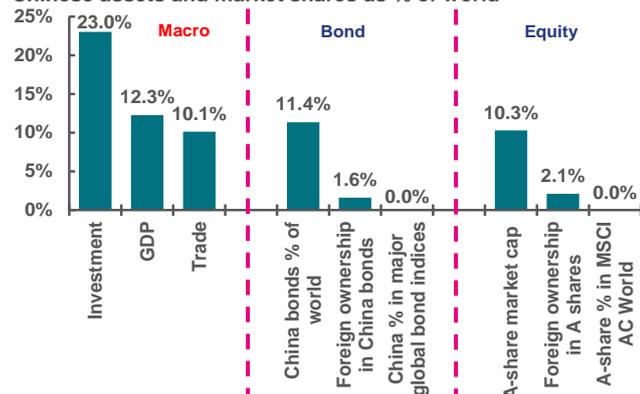
China's rapid economic integration into the world has created profound changes to its and global economies over the past forty years. Its economic (GDP) share in the world surged almost six-fold to 12.3% – the second highest after the US, while its contribution to global GDP growth has averaged around 30% since the global financial crisis.

Compared to its economic importance, China's influence on the global financial market has been limited by its tightly-controlled capital account (*Exhibit 1*). Even though the domestic equity and bond markets have grown to a substantial size, these markets remain isolated from the world, with almost zero representation in international benchmarks or a typical global investor portfolio.

Exhibit 1

Financial-market representation lags economic weight

Chinese assets and market shares as % of world



Source: Bank of International Settlements (BIS), CEIC, IMF and AXA IM Calculations – as of April 2018

An already vast market will become bigger

However, that lack of foreign investor participation has not prevented the domestic markets from growing rapidly. For example, the total bond market outstanding was just under RMB110bn in the early 1990s. But, by the

end of 2017, it had reached RMB74.4tn (or USD11.8tn),² equating to an annualised average growth rate of almost 40% over the past 27 years.

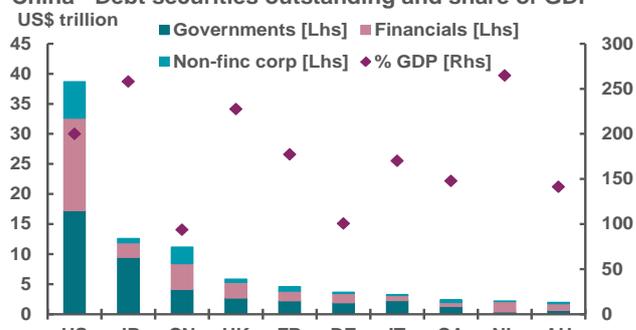
As the market grows in size, it also expands in diversity. While sovereign paper dominated the market until the late 2000s, corporate bond issuance picked up strongly after the global financial crisis. The latter played a critical role in supporting China's investment-driven stimuli post 2008. Today, China is the world's third largest bond market, with a diverse mix of sovereign, quasi-sovereign (policy banks), sub-government (municipal and state-owned enterprises – SOEs) and corporate bonds.

Despite its already vast size, the market has the potential to grow further. Relative to its US\$12tn economy, the bond market is less than 100% of China's GDP, a ratio that is much lower than those prevailing in major economies (*Exhibit 2*). In addition, China is in a process of rebalancing its financial system from banks to the capital market, implying a shift in credit supply. Its economic rebalancing towards consumption and services-led growth should also create capital-lite companies that will rely more on market-based financing. These shifts in the supply and demand of financial intermediation will create a fertile ground for the bond market to grow. Taken together, we expect the size of China's bond market to reach US\$15.8tn by 2020, overtaking Japan as the second largest in the world³.

Exhibit 2

China's bond market has further room to grow

China - Debt securities outstanding and share of GDP



Source: BIS, IMF and AXA IM Calculations – as of April 2018

Market integration has started

While foreign investors were mostly side-lined from the past developments, we think they will play an increasingly active role in China's financial market transformation in the future. Specific to fixed income, the Chinese authorities have introduced several channels to bridge the onshore markets with offshore capital. From the initial quota-based QFII⁴ (2003) and RQFII⁵ (2013)

² According to data from the PBoC.

³ Yao A, Shen S and Fung HY "China bond market: Dawn of a new era" AXA Investment Managers, 2 June 2017

⁴ Qualified Foreign Institutional Investor

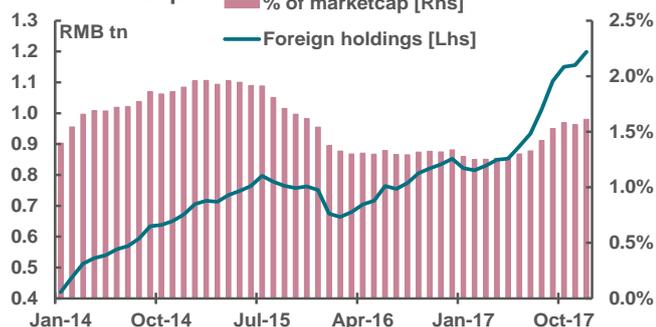
schemes for institutional investors to the more-streamlined CIBM⁶ program (2016) for central banks and sovereign wealth funds, and the latest Bond Connect (2017) which is open to all investors, the barriers of investing in the onshore market have been lowered over time.

This liberalization has helped to lift foreign ownership of RMB bonds (*Exhibit 3*). Net capital inflows to the Chinese market have generally continued, despite a bumpy market environment in recent years. In fact, the momentum of these inflows has accelerated over the past 12 months, as investor sentiment and market accessibility have both improved.

Exhibit 3

Inflows to RMB bonds accelerate lately

China - Foreign holdings of onshore bonds and % of total marketcap



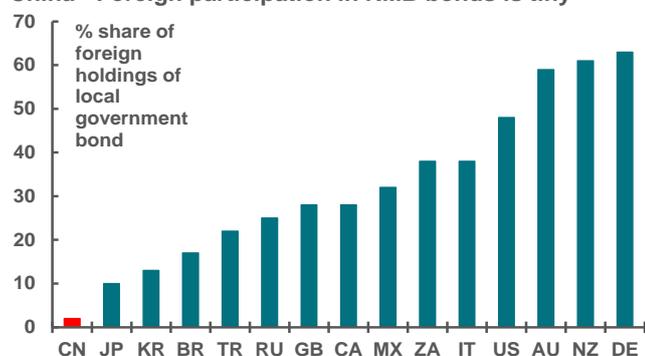
Source: Bloomberg, CEIC and AXA IM Calculations – As of April 2018

While the trend is positive, the opening-up of such a gigantic market will take time. Currently, only 1.6% of RMB bonds outstanding are held by foreigners, significantly below the ratios seen elsewhere (*Exhibit 4*). Among this, central banks and sovereign-wealth funds have been active participants following the inclusion of RMB in the IMF’s SDR basket. Private-sector investors – pension funds, insurance companies and asset managers – however remain largely underrepresented. To arouse their interest, President Xi Jinping announced measures early this year to further open up China’s financial system and capital markets. If successfully implemented, they will be key to hastening the pace of China’s bond market integration into the world.

Exhibit 4

Foreign participation has a long way to grow

China - Foreign participation in RMB bonds is tiny



Source: CEIC, HSBC and AXA IM Calculations – As of April 2018

Integration supported by index inclusion

Fundamentally, there are several structural and cyclical factors supporting China’s bond market liberalisation. Subsequent chapters of this report will discuss how the relative value in RMB bonds (Chapter 2) and China’s improved cyclical environment (Chapter 3) have played a part. Here, we first focus on a structural positive: the inclusion of China bonds in global benchmarks.

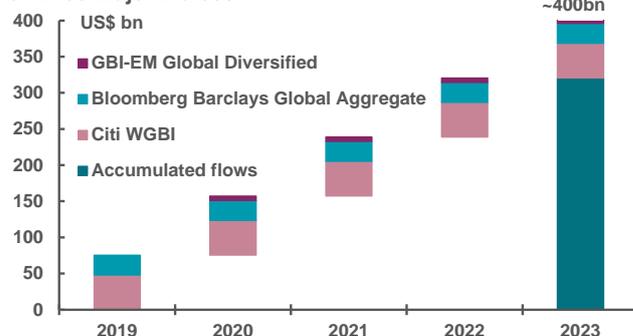
Over the past three years, a number of highly-respected global index operators, including the IMF (SDR for global reserve currencies), MSCI (for global equities) and Bloomberg-Barclays (BBGAI⁷ for global bonds) have announced the addition of Chinese assets to their index universe. The SDR inclusion of RMB as an international reserve currency has already encouraged central banks across the world to add US\$30bn of RMB assets to their reserve portfolio in 2017⁸. But at 1.7%, China’s weight in global reserves remains well below its share in the SDR (at 10.9%), suggesting further increases in RMB allocation are likely over time.

In addition, private-sector inflows to the China bond market can be substantial too. In March this year, the BBGAI – a major global fixed-income index with an estimated tracking asset under management (AUM) of US\$2.5tn – has decided to add China’s sovereign and quasi-sovereign bonds to their benchmark. Other index operators, such as Citigroup’s WGBI⁹ and JP Morgan’s GBI-EM¹⁰, are likely to follow soon. Together, we estimate that these index inclusions could bring a total of US\$400bn in passive flows to China bonds over the coming five years (*Exhibit 5*).

Exhibit 5

Index inclusion foreshadows large capital inflows

China - Market inflow estimate from bond market inclusion of three major indices



Source: Bloomberg, Citigroup, JP Morgan and AXA IM Calculations – As of April 2018

⁵ Renminbi Qualified Foreign Institutional Investor

⁶ China Interbank Bond Market

⁷ Bloomberg Barclays Global Aggregate Index

⁸ According to data from the BIS

⁹ World Government Bond Index

¹⁰ Government Bond Index-Emerging Markets index

Relative Value: Boosting performance by adding a slice of Chinese bond

By Aidan Yao, Research and Investment Strategy, and Alexis Duvernay, Asia Fixed Income

- China's relatively high interest rates have enabled RMB bonds to deliver superior historical performance, making them attractive in the current low-interest-rate environment.
- The RMB depreciation in 2015 and 2016 offset this yield advantage, but since 2017, this has no longer been the case. After a roller-coaster ride, we expect the yuan to step onto a relatively stable medium-term path.
- Returns of RMB bonds exhibit low volatility and have limited correlations with other markets. Adding them to a global fixed-income portfolio can improve historical risk-adjusted performance across currency denominations and investment horizons.

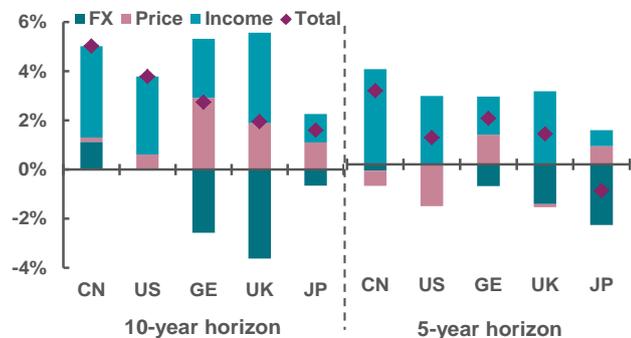
Higher yields make RMB bonds attractive

Beyond the structural rationale for investing in the world's third largest market, we also found RMB bonds to be a sound relative-value investment historically. A passive holding of 10-year government bond, for example, has returned 3% and 5% on an annual basis over the past five and 10 years respectively, outperforming other markets by 110-410 basis points (*Exhibit 6*).

Exhibit 6

China bonds outperform major markets

China - Return composition of 10-year government bonds over 5 and 10 year horizon



Source: Bloomberg and AXA IM Calculations – 28/3/08–29/3/18. Past performance is not a reliable indicator of future results.

Decomposing total return shows that the income component has contributed the lion's share to this outperformance, while the price and FX moves – hampered by the recent yuan depreciation – have made limited gains¹¹.

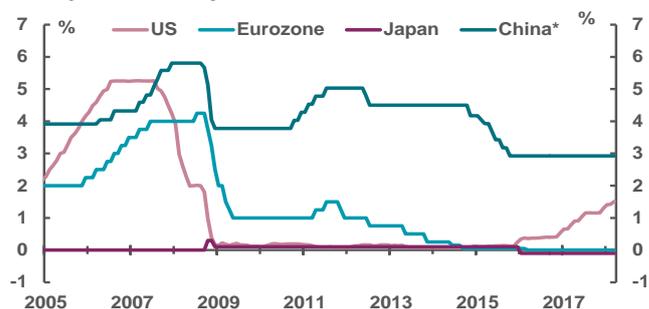
The large income return is related to China's structurally high interest rates compared to developed markets (DM), thanks to its fast-growing economy and independent monetary policy (*Exhibit 7*). This interest rate differential has grown larger since the global financial crisis, with DM central banks outstripping China in cutting policy rates and enacting quantitative easing.

¹¹ Annualized return of RMB bonds drops to 1.83% for the period since 7 August 2015, right before the FX regime change, but it still outperforms the US Treasury at 0.65% over the period.

Exhibit 7

China's interest rate premium expands post crisis

Policy rates of major economies



*China is the average of benchmark deposit and lending rates

Source: Bloomberg and AXA IM Calculations – 1/1/05–1/3/18

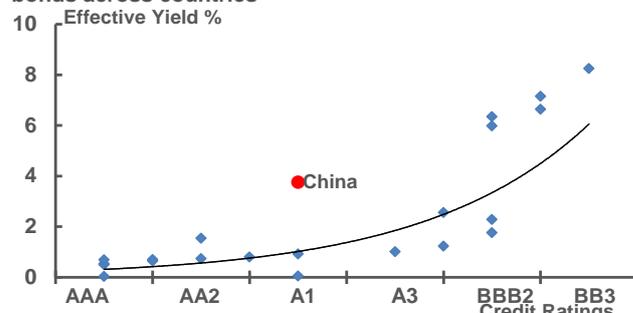
Adjusting bond yields for credit risks (as measured by the three global credit rating agencies), the nominal interest rate on China's 10-year government bond, at 3.8%, is substantially higher than Japanese and Irish bonds with the same rating (*Exhibit 8*). Adjusting for inflation, China's real yields – at 1.7% for the sovereign and 2.7% for the same-rated quasi-sovereign – are also well above those of other major markets.

We think that these interest rate differentials are likely to persist going forward, given the structural forces behind China's high rates and the slow policy normalization anticipated for DM economies.

Exhibit 8

RMB yield attractive after adjusting credit/inflation risks

Sovereign credit ratings and effective yields of 10-year bonds across countries



	Rating			Nominal Yield (% 10-year)	Breakeven inflation (% 10-year)	Real Yield (% 10-year)
	Moody's	S&P	Fitch			
China Policy Bank	A1	A+	A+	4.70	2.00	2.70
China	A1	A+	A+	3.74	2.00	1.74
US	Aaa	AA+	AAA	2.80	2.08	0.72
Italy	Baa	BBB	BBB	1.78	1.26	0.52
Japan	A1	A+	A	0.40	0.58	-0.18
France	Aa2	AA	AA	0.74	1.42	-0.68
Germany	Aaa	AAA	AAA	0.49	1.37	-0.88
UK	Aa2	AA	AA	1.42	3.07	-1.65

Source: Bloomberg and AXA IM Calculations – As of 13 April 2018

Currency no longer a drag on return

One risk that could unsettle the investment thesis built on relative interest rate differentials is the currency. Indeed, the significant RMB depreciation between 2015 and 2016 eroded returns for those with unhedged FX exposure, and drove away global interest in RMB bonds. Fears of

further currency weakness and rising FX volatility have been a major hurdle for foreign investment in China bonds.

However, the FX market has turned since early 2017. Not only has the yuan recovered almost all its previous losses, market expectations about the future of the exchange rate have also become more balanced compared to 12 months ago (*Exhibit 9*).

Exhibit 9
RMB recovers and expectations restored
CNY/USD exchange rate and consensus forecasts up to one year ahead

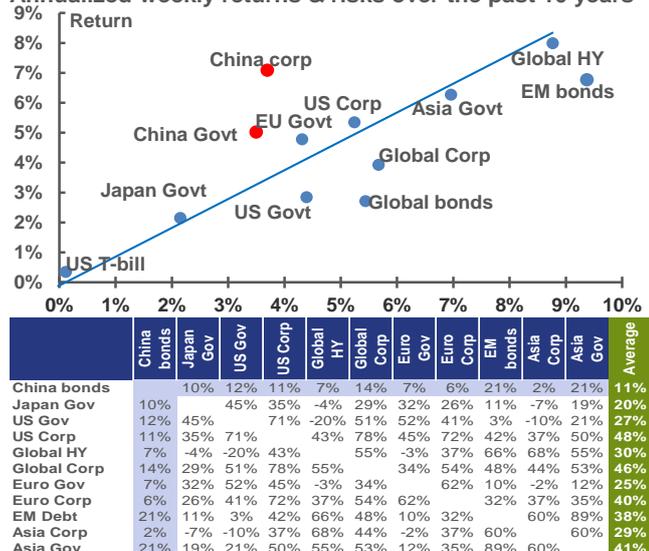


Looking further ahead, even though there are structural headwinds for the RMB – such as high debt levels, slower trend growth and possible capital outflows, offsetting forces may emerge if the proposed reforms by Beijing are successful in rejuvenating productivity gains. With the yuan no longer significantly overvalued after its recent correction, and the productivity growth differential (Balassa-Samuelson effect) likely offsetting the negative impact of inflation differentials (stationarity of the real exchange rate), a stable, or even mildly appreciating, exchange rate is possible over the medium term. This, together with China’s interest rate premium, should reinforce the attractiveness of RMB bonds.

Gains from diversification

Exhibit 10
China bonds offer better returns with less volatility

Annualized weekly returns & risks over the past 10 years



Source: Bloomberg and AXA IM Calculations – 4/4/08–6/4/18

Adding to its appeal is the historically low volatility of the China bond market. Annualized standard deviations of government and corporate bond returns are around 3.5%

over the past 10 years, lower than those of US and EU markets (*Error! Reference source not found.*). Compared to Asian and emerging market (EM) indices, RMB bonds have delivered equal or better returns with less volatility. In general, the historical risk/return profile of the China bond market is above the global average.

In addition, returns of RMB bonds have historically demonstrated only limited correlations with other markets. These correlations (of weekly returns), ranging from 2% to 21%, are below those among the non-China markets. Even though the gradual opening of China’s capital account should, in theory, drive more market co-movements, the liberalisation process is likely to be gradual, preserving the benefit of diversification for some time to come.

Adding China can boost risk-adjusted return

Thanks to its constructive risk/return profile and low correlation with other markets, our analysis shows that adding RMB bonds to a global fixed-income portfolio can significantly boost its historical risk-adjusted returns. *Exhibit 11* shows the performance of four hypothetical global bond portfolios – denominated in USD and EUR, and with and without China¹². The portfolios with China bonds have generally outperformed those without them, with consistently higher Sharp ratios across investment horizons and currency denominations.

Exhibit 11
Adding China has historically boosted performance

Performance of global bond portfolio with and without China denominated in USD and EUR



USD Portfolio	1-Year		5-Year		10-Year	
	With CN	Without	With CN	Without	With CN	Without
Return	7.8%	6.6%	2.0%	1.6%	3.4%	2.7%
Volatility	3.8%	4.0%	4.7%	5.2%	4.9%	5.5%
Sharp ratio	1.77	1.40	0.37	0.24	0.62	0.43
EUR Portfolio	1-Year		5-Year		10-Year	
	With CN	Without	With CN	Without	With CN	Without
Return	-7.0%	-7.3%	3.0%	2.5%	6.1%	5.3%
Volatility	5.3%	5.0%	6.5%	6.0%	8.1%	7.5%
Sharp ratio	n.a.	n.a.	0.40	0.34	0.70	0.65

Source: Bloomberg and AXA IM Calculations – 4/4/08–29/3/18

¹² This simulation is for illustrative purposes only, on the basis of the following hypothesis: In portfolios with China, we adopt a 20-80% weight-split between China and non-China global bonds, which include both rates and credits. Data from Bank of America Merrill Lynch extracted from Bloomberg for the period from 4/4/2008 to 6/4/2018. Simulated results have many inherent limitations. In particular, simulations are performed with a limited number of variables and are based on historical data or assumptions as trade execution and market impact cost that may be different from the actual data and could evolve in the future. Additionally, simulated returns are often prepared with the benefit of hindsight, meaning that models used in these simulations may have been developed explicitly with the benefit of data for the time period covered by these simulations. Should any information used in the above simulations prove to be inaccurate, the simulated results themselves may be inaccurate. There can be no assurance that the models will remain the same in the future or that an application of the current models in the future will produce similar results because the relevant market and economic conditions that prevailed during the hypothetical performance period will not necessarily recur. These simulated returns should not be relied upon and no representation is being made that any fund or strategy will or is likely to achieve profits or losses similar to those shown herein.

China Bond Strategy: Post-storm tranquillity

By Aidan Yao, Research & Investment Strategy, and Honyu Fong, Asia Fixed Income

- A combination of RMB depreciation and rising onshore interest rates has driven away global interest in China bonds in recent years.
- But conditions have changed lately, as the currency trend has reversed and China's deleveraging campaign has entered a new auto-pilot phase.
- We expect onshore interest rates to be range-bound between 3.5 and 4% in 2018, with the floor underpinned by tight regulatory and macro-prudential policies, while the upside is capped by neutral monetary policy and a slowing economy. Continued dollar weakness should enhance local-currency returns in RMB bonds, while the medium-term outlook of the yuan will be partly contingent on the success of China's own reforms.

A rollercoaster ride with the yuan

The past few years have been challenging times for foreign investment in China bonds. Both domestic interest rates and RMB exchange rates have been on a rollercoaster ride accompanied by surging market volatilities. For a passive investor with unhedged FX and rates exposures, returns on a 10-year government bond have ranged from -4.9% to +9.1% – a 1,400 basis point fluctuation over the past 5 years (*Exhibit 12*).

Exhibit 12

Volatile performance in RMB bonds due to FX swings

China - Return composition of 10-year government bonds since 2006



Source: Bloomberg and AXA IM Calculations – As of March 2018

The largest contributor to this return volatility is the wide swings in the RMB exchange rate. In a surprise move, Beijing took a bold step in August 2015 to liberalise its long-standing fixed exchange rate. While this helped the RMB to enter the IMF's SDR basket later that year, the cost to that index inclusion was a major shock to investor confidence and financial stability.

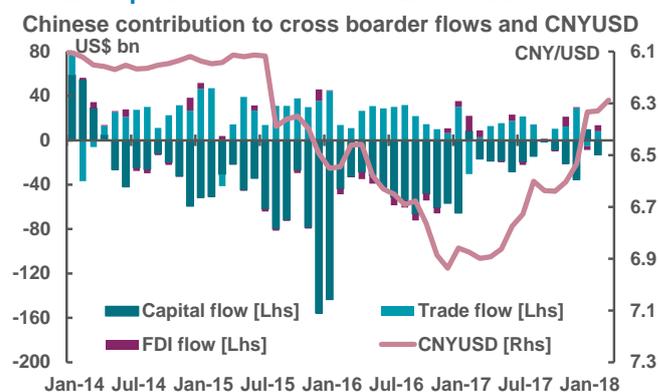
Part of this was bad timing: the liberalisation took place just after the domestic equity market crash and amidst with a sharply slowing economy. Talks of China competitively devaluing its currency immediately seized the market, fuelling speculation of further losses.

Compared to the mounting short-selling pressure in the offshore market, a bigger problem facing Beijing was the massive capital outflows from onshore. A combination of investors moving money out of RMB assets, borrowers repaying dollar debt, and exporters hoarding USD (without converting receipts into RMB), triggered a massive exodus of money in the ensuing year.

Even though the authorities took steps to stabilize the situation by selling FX reserves, it wasn't until Beijing enacted draconian capital controls at the end of 2016 that the depreciation pressure truly started to wane. At the same time, the appreciating trend in the USD also started to reverse. A combination of dollar weakness and effective capital controls by Beijing saw the CNY/USD recoup almost all its earlier losses over the past year (*Exhibit 13*).

Exhibit 13

Volatile capital flows sent CNY/USD on a wild ride



Source: CEIC and AXA IM Calculations – As of April 2018

Deleveraging reshapes the bond market

Compared to the wide swings in the exchange rate, developments in the onshore bond market were less disruptive, but equally profound. Some of President Xi's supply-side reforms – such as the successful industrial price reflation – have impacted the bond market indirectly via the economy. However, the most profound changes have come from policies that were aimed directly at de-risking the financial system.

Since its inception in the second half of 2016, the financial deleveraging campaign, initiated by the PBoC, but later joined by other regulators, has progressed in three phases:

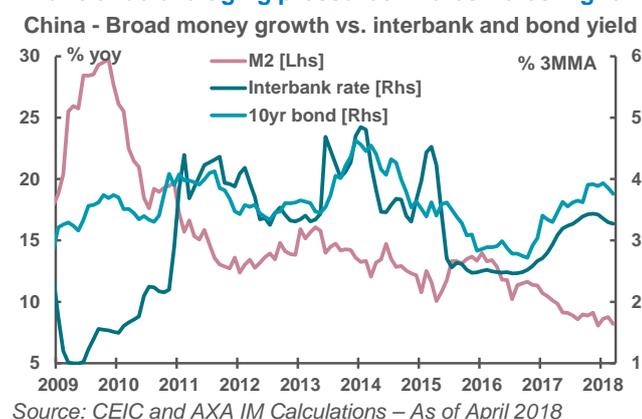
Phase one was to reduce bond market leverage, which had built up in recent years by shadow banking entities seeking higher returns. The PBoC accomplished this by clamping down on repo activities, which curbed interbank market liquidity, and lifted money and bond yields.

Phase two of the process was to tighten regulations in the shadow banking system, whose rapid growth since the financial crisis increasingly posed a systemic threat. As tougher controls were placed on wealth management

products and interbank market activities, the layer of financial intermediation was reduced. The benefit of this operation was that liquidity was no longer “churning” in the financial system, but redirected to serve the real economy. But the cost was a further run-up in interest rates as shadow banks cut their demand for bonds (*Exhibit 14*).

More recently, the unwinding of off-balance-sheet assets of regulated financial institutions – the final phase of the deleveraging process – has started in earnest. Compared to phases one and two, phase three will be a long-term fight that involves not only correcting past mistakes, but also redirecting the future path of China’s financial development. To facilitate this, Beijing has just revamped its financial regulatory framework, including a merger between the banking and insurance watchdogs, and the establishment of a super regulatory committee – the Financial Stability and Development Commission – to oversee financial policy design, implementation, and cross-institution coordination.

Exhibit 14
Financial deleveraging pressures interest rates higher



Rates to range-bound amid mixed policies

In a context where nominal credit growth is still running faster than GDP growth, these changes suggest that financial deleveraging is far from over.¹³ That being said, we think deleveraging from here will move into an auto-pilot phase, focusing on rule-based regulations to rebalance the system, instead of relying on periodic campaigns and heavy-handed clampdowns. The recently announced new regulations for the RMB100tn asset management industry are consistent with this assessment. Overall, we think China’s financial regulatory environment will remain tight in 2018, but no tighter than 2017.

On the flipside, we think the PBoC will maintain its neutral monetary policy stance this year. This, however, does not preclude the central bank from adjusting market interest rates in response to the Fed’s moves, or injecting liquidity to prevent excessive tightening from new financial regulations. In fact, with the economy expected to slow and inflation well below the government’s target, the central bank is more likely to lean on the easing side against the tightening already coming from deleveraging

¹³ This is consistent with President Xi making “managing systemic financial risks” a top priority for the government in 2018.

and a strong currency.¹⁴ Monetary policy could, therefore, be used as an adjustment mechanism to balance out other forces and keep long-term interest rates within a 3.5-4% range.

RMB no longer a disruption for bond return

In contrast to its negative contribution to bond returns between 2014 and 2016, the RMB was a positive driver of bond performance last year. The trend of currency appreciation has continued in 2018, with the CNY/USD gaining 2.2% year-to-date,¹⁵ after its 6.3% appreciation in 2017. It is important to point out that, despite gaining more flexibility, the RMB exchange rate has not decoupled from the broad USD movement since 2015, suggesting that the dollar outlook remains crucial for the future of CNY/USD (*Exhibit 15*). A continuation of dollar weakness – partly driven by the widening US twin deficits¹⁶ – should bode well for dollar-based investors in RMB bonds.¹⁷

Exhibit 15
CNY/USD not decoupled from broad dollar moves



Looking further ahead, we believe the medium-term outlook of the RMB hinges heavily on the success of China’s economic reforms. Without effective structural changes, slowing trend growth and excessive debt will clearly weigh on the currency. But if reforms are successful in clearing the road-blocks for China’s next stage of development, the exchange rate – and other RMB-denominated assets – should all benefit from the improved quality of growth in the Chinese economy¹⁸.

¹⁴ The recent RRR cut should be seen in this context.

¹⁵ As of 4-May-2018

¹⁶ For euro-based investors, the currency effect is not as straightforward, as the EUR is also expected to strengthen against the USD. Hedging the CNY currency risk vis-a-vis the EUR costs 4.4% (as of end-April), consisting of 1.5% for the CNY/USD leg and 2.9% for the USD/EUR leg.

¹⁷ Page, D “[The best guide for US Treasury yields points upwards](#)” AXA Investment Managers research, 3 March 2018

¹⁸ Yao A and Shen S “[China stepping onto a new economic path](#)” AXA Investment Managers research, 28 February 2018

China Credit Market: Capturing alpha with local expertise

Aidan Yao, Research & Investment Strategy, and Xuechuan Du, AXA SPDB

- Investing in China's bond market is subject to risks that global investors may not be accustomed to elsewhere.
- This is particularly true in the onshore credit market, where factors relating to policy and politics can sometimes define the risk/return characteristics of issuers.
- Given the lack of credibility of onshore credit ratings, investors should rely on independent and on-the-ground research that takes into account the idiosyncratic risks pertaining to this market.

Specific risks to China's bond market

While its size already exceeds most developed markets, China's bond market still behaves more like an emerging market than a developed market on many risk dimensions. Global investors therefore need to be aware of a number of risk factors that are specific to this market and take precautionary steps to manage them. These risks include:

- 1. Regulatory risks:** China's bond market is regulated by multiple agencies on multiple fronts. The onshore market consists of the interbank market regulated by the PBoC, and the exchange market overseen by the China Security Regulatory Commission (CSRC). Bond issuance by some quasi-sovereign entities, such as policy banks and local governments, are subject to the approval of the State Council and National Development and Reform Commission (NDRC). For foreign investors, accessing the onshore market requires the approval of the State Administration of Foreign Exchange (SAFE), CSRC, PBoC and/or Hong Kong Monetary Authority (HKMA) depending on channels of access. This complex regulatory structure can sometimes lead to policy incoherence and create regulatory risks for investors.
- 2. Liquidity risks:** In the rates market, liquidity conditions for on-the-run bonds are generally very good, but they can deteriorate significantly for off-the-run papers. For corporate credit, bonds from first-time issuers can encounter weak investment appetite, hindering market liquidity. Conditions can also vary across markets, with the interbank market generally offering better liquidity but typically requiring investors with bigger trading sizes.
- 3. Policy risks:** China's bond market is sensitive to changes in monetary policy like elsewhere, but the operations of the PBoC can be different to what is expected of a typical DM central bank. At the most basic level, the PBoC does not adhere to a regular policy announcement schedule, which makes predicting the timing of policy changes difficult. In addition, the goals of monetary policy are wider than those of DM central banks, and the PBoC has more

tools to achieve them. Increased central bank communications have, in recent years, become an important source of market volatility, but because they are mostly conducted in the local language, misinterpretation by English media is not uncommon. Similar policy risks exist in other areas, such as FX and financial regulations, where policy-making can be more opaque than developed markets.

- 4. Corporate governance:** China's corporate credit market has grown very rapidly in recent years, but that growth has not been matched by a similar improvement in market infrastructure and corporate governance. The degree and quality of company reporting, information disclosure and regulatory oversight are still evolving, and have a long way to go to converge to DM standards.
- 5. Credit risks:** Assessing credit risks in China's bond market has been made difficult by a lack of credit events historically. Even though cases of defaults and downgrades have increased in recent years, these remain under the control of the government, particularly for the state-owned enterprises (SOE) and local government subsidiaries (e.g. LGFVs). By and large, the official implicit guarantee remains in place, although it is now being applied more selectively to entities. This uncertain application of official backstops has resulted in increased risk differentiation in market pricing, highlighting the need for more granular credit research even among the state-related entities.

Differentiating credit risks: a challenging task

As the world's second largest credit market, China offers depth, diversity and opportunities for exploring mispricing. However, given the issuers' specific, and unique market-wide as risk factors discussed in the previous section, investing in this market will require active management of these risks.

Unfortunately for global investors, relying on third-party credit ratings will not cut it, given the well-known pitfalls associated with China's onshore credit ratings. For a start, these ratings do not offer nearly as much rating differentiation as those provided by global rating agencies. Currently, over 96% of onshore rated bonds fall into only three categories, AAA, AA+ and AA, while those rated by international agencies in the offshore market range across the full spectrum (*Exhibit 16*).

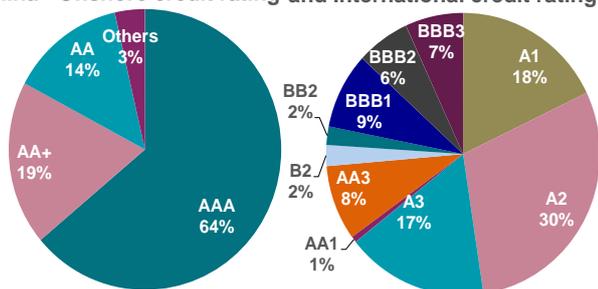
Then there is the problem of rating shopping that leads to rating inflation. The fact that nearly 65% of onshore-rated bonds are in the top AAA category, while their bonds in the offshore market could be rated below investment grade is a clear reflection of this. Finally, there exist methodological differences between onshore and offshore ratings, as the former tends to favour large and state-owned companies, while the latter focuses more on

standalone business profitability and balance-sheet health.

Exhibit 16

Onshore vs. offshore credit rating of China bonds

China - Onshore credit rating and International credit rating



Source: Wind, Bloomberg and AXA IM Calculations – As of April 2018

Local credit research is key

The lack of credibility of onshore credit ratings makes a strong case for investment in China credits to be based on independent research. An effective credit screening framework should, in our view, consist of at least three basic steps (Exhibit 17).

Step one involves categorising all the eligible bonds into three broad (and multiple subs) classes based on the nature of issuers: enterprises, financial institutions and local government platforms. Given the different nature of these issuers, the subsequent credit analysis should vary.

Step two should be a quantitative assessment that puts the issuers' financial and business health under close scrutiny. For private-sector issuers, for example, this involves a careful examination of their standalone business risks – sales, profits, product lines – and industry-wide characteristics, such as market trends and

the company's position within the industry. This should then be supplemented by a thorough analysis of issuers' financial profiles, including cash flows, profit margins, debt ratios and so on.

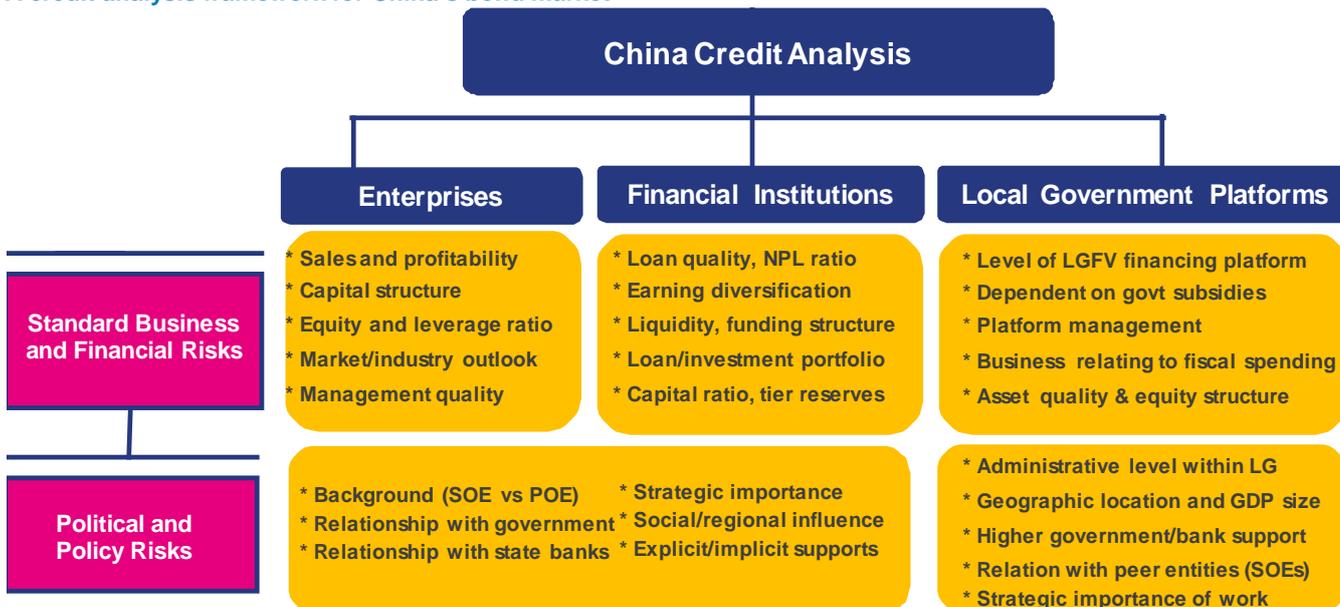
The real challenge for global investors is getting the information needed for these analyses, given the opacity of the Chinese market and a general lack of corporate transparency. Hence, local expertise that allows for on-the-ground information gathering, frequent company visits and close performance monitoring is key for ensuring an accurate assessment of issuers' risks is derived.

The final step, which is really what differentiates credit analysis in China from elsewhere, is the assessment of policy and political risks. This involves analysing the issuers' connections with the government, their relationships with state banks, and their associations with other state entities (e.g. subsidiary of a larger SOE). These characteristics are critical in China for determining the allocation of government resources, including official projects, subsidies, credits and other forms of preferential treatments.

Understanding these political attributes and to what extent they may translate into official supports in both good times and bad can be particularly challenging for international investors. This explains why they have been largely absent from the onshore credit market until recently. Compared to sovereign bonds, it will likely require an improvement in corporate fundamentals (e.g. leverage and governance) and market infrastructure (quantity and quality of reporting) to put investors truly at ease with investing in this market. That will clearly take time, but China is slowly, but surely, moving in the right direction.

Exhibit 17

A credit analysis framework for China's bond market



Source: AXA IM Calculations – As of April 2018

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