Opening of China's Bond Market

What Global Investors Need to Know

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KEY POINTS

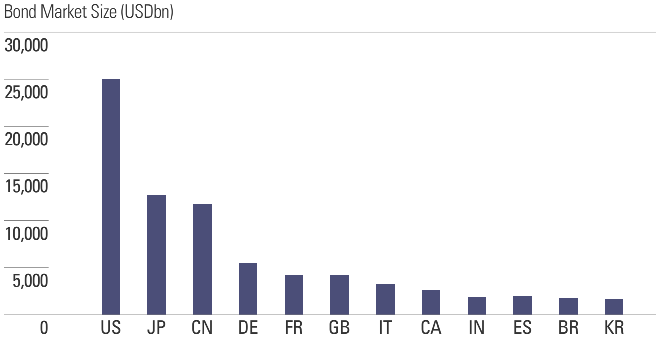
- **The opening of China’s bond market, the third largest in the world, is an historic moment for global fixed income investors.**
- **The Chinese authorities have been dismantling the barriers for foreign investors to access China’s onshore bond market since 2016, with more expected.**
- **In April 2019, Chinese bonds will begin joining the main global bond index, the Bloomberg Barclays Global Aggregate Index, meaning they will be widely held by international investors.**
- **However, trading these Chinese bonds will not be without its challenges and investors will need to find the right asset manager to help them determine the most appropriate exposure and implementation approach.**

Through State Street Global Advisors’ strategic alliance with central banks in the region,[1] we have been investing in the domestic Chinese bond market since 2005. In this paper, we share our thoughts on the key features of the Chinese bond market, from the practicalities of getting invested to market structure and liquidity dynamics. We also assess the impact that China’s inclusion in the major global bond indices might have for investors.

MAKING THE INVESTMENT CASE

Given the investment restrictions and quotas in place until recently, only a limited number of institutional investors have been able to invest in the onshore Chinese bond market. Consequently, foreign investors currently own just 2% of the market, according to local estimates.[2] With bond investors still scouring the globe for new sources of yield that are not overly reliant on credit or duration, a high quality sovereign with attractive positive yields like China can no longer be overlooked — particularly given the size of the country's bond market (see Figure 1).

Figure 1: China Bond Market in Perspective

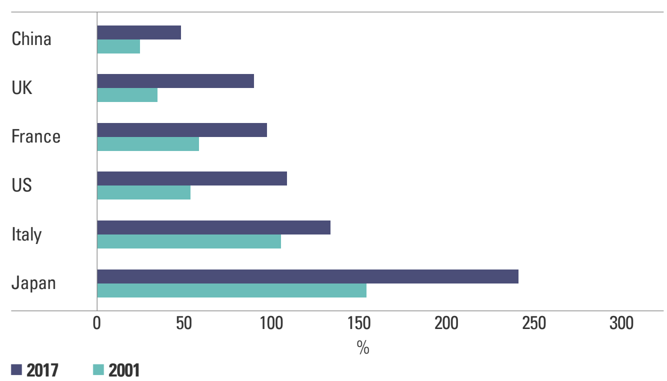


Source: Bloomberg, HSBC, as of January 11, 2018.

Stable Credit Rating

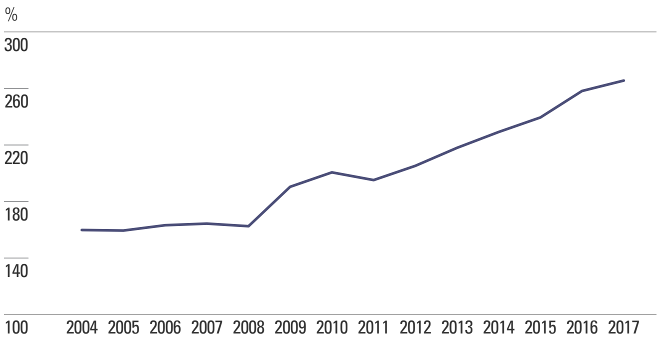
The period from 1999 to 2010 was one of remarkable economic transformation for China. Its local currency sovereign debt rating followed an equally impressive upgrade trajectory from BBB to AA- according to S&P. The stability of its rating during this period contrasted starkly with the creeping deterioration of major developed market sovereigns. While China's sovereign rating was cut one notch to A+ from AA- in late September 2017, citing increased risks after a prolonged period of strong credit growth, this move merely aligned the S&P rating at A+ with other agencies: Moody's A1 (from Aa3) May 2017, Fitch A+ (from AA-) April 2013. Moreover, the impact of the rating downgrade on the bond market has been limited given: a) these credit risks are well known by investors already; b) regulatory actions have been taken to rein in the shadow banking system; c) credit growth is slowing and d) the domestic bond market is owned by predominantly buy and hold investors. Notably, China's sovereign rating is currently equivalent to that of Japan (A+), higher than Italy (BBB) and only two notches below the UK and France.

Figure 2: Government Debt/GDP Ratios



Source: International Monetary Fund, World Economic Outlook Database, October 2017.

Figure 3: Growth of China's Overall Debt as % of GDP



Source: Bloomberg, as of December 2017.

China's Debt Dynamics

The growth in Chinese borrowing over the past few years needs to be framed in the context of China's ability to service and repay this debt, as many factors ultimately determine sovereign credit quality and debt sustainability. China's general government debt/ GDP ratio of less than 50% is at roughly half that of most large developed economies (see Figure 2). At this level, it basically underpins China's strong A+ sovereign credit rating while providing scope for future expansion if necessary.

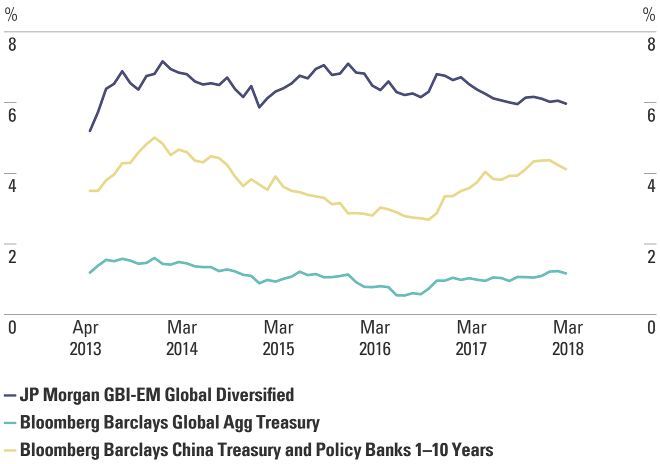
This ratio does not tell the whole story, however. If we measure the economy based on total debt, a different picture emerges, and the sharp rise in overall debt/ GDP from 164% in 2007 to 266% in 2017 gives some cause for concern (see Figure 3).

Offsetting this rise in debt levels are some important features, which should serve to alleviate some of these concerns:

- China's debt growth has been largely a re-allocation of internal capital and savings from consumption to longer-term investment.
- China is a net creditor to the world, with a positive net asset position of 14.7% of GDP;[3] this appears likely to prevail for the foreseeable future given the current account surplus.
- China's large foreign exchange reserves remain a significant support at approximately USD 3 trillion as of March 2018, but it should be noted that this is down from USD 4 trillion in 2014.

With many of the traditional emerging market (EM) weaknesses, external dependencies and other vulnerabilities absent from China's overall debt profile, we believe that policymakers have the necessary flexibility to manage the deleveraging process for certain sectors in a controlled and gradual way. We believe this makes China's debt situation a lot more manageable, rather than any serious cause for concern.

Figure 4: Chinese Yields Relative to Emerging and Developed Market Sovereigns

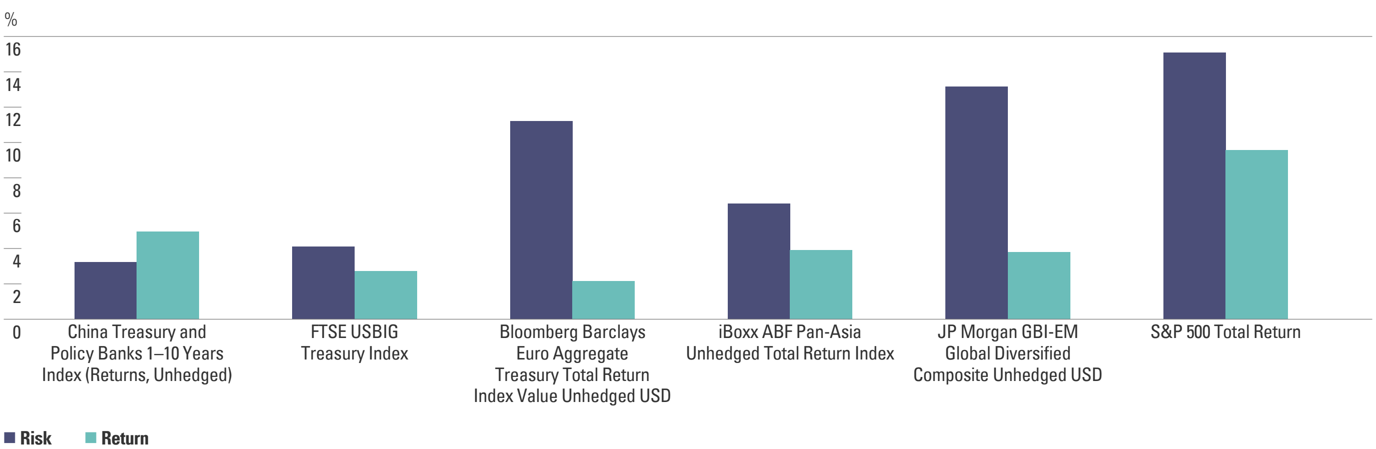


Source: State Street Global Advisors, JP Morgan, Bloomberg Barclays POINT as of March 30, 2018. Past performance is not a guarantee of future results.

Valuations

The yield on Chinese bonds — using a China Treasury and Policy Banks 1–10 Year Index — has typically rested about half way between the yields on developed market (DM) and EM sovereigns (see Figure 4). This should come as little surprise, given that China's credit quality is more aligned with DM than EM sovereigns.

Figure 5: Risk/Return of Major Fixed Income Markets



Source: State Street Global Advisors, Bloomberg as of March 31, 2018. Past performance is not a guarantee of future results. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect capital gains and losses, income, and the reinvestment of dividends.

Allocating to China — Assessing Relative Risk to Reward

So how do Chinese government bonds stack up from a risk/reward perspective compared with other fixed income sectors? China is a highly rated sovereign that offers an attractive yield relative to high quality alternatives. When we compare the 10-year return, volatility and correlation of onshore China government bonds against other major fixed income sectors, we find China has relatively higher risk/return ratios and lower correlations. As such, China bond allocations could provide potential return enhancement opportunities (see Figure 5) along with diversification benefits (see Figure 6) when blended with a range of fixed income portfolios.

Figure 6: 10 Year Correlation as of March 31, 2018

	Onshore China Govt + Policy Bank	US Treasuries	EUR Treasuries	Asia Local Currency	EM Local Currency
Onshore China Govt + Policy Bank	1.00	—	—	—	—
US Treasuries	0.19	1.00	—	—	—
EUR Treasuries	0.24	0.24	1.00	—	—
Asia Local Currency	0.37	0.32	0.66	1.00	—
EM Local Currency	0.23	0.12	0.74	0.86	1.00

* As represented by the following indices: Bloomberg Barclays China Treasury and Policy Banks 1–10 Years Index Unhedged USD; Citi USBIG Treasury Index; Bloomberg Barclays Euro Aggregate Treasury Total Return Index Value Unhedged USD; iBoxx ABF Pan-Asia Unhedged Total Return Index; J.P. Morgan GBI-EM Global Diversified Composite Unhedged USD; S&P500 Total Return Index.

Source: State Street Global Advisors, iBoxx, Citi, JP Morgan, Barclays, Bloomberg.

Diversification does not ensure a profit or guarantee against loss.

STRUCTURE, LIQUIDITY AND ACCESS

Structure

China's domestic bond market totalled approximately Chinese yuan (CNY) 74,662 billion (around USD 11.5 trillion) at the end of 2017. The rates sector, totaling 56% of the outstanding debt, consists of China government bonds (18%), policy bank bonds (18%) and local government bonds (20%). The credit and money market sectors (44%) consist mainly of financial and corporate bonds (27%), as well as certificates of deposit (11%), commercial paper (2%) and asset-backed securities (see Figure 7).

Liquidity — Depth, Cost and Flow

Since State Street started investing in the onshore Chinese bond market in 2005, we have witnessed tremendous improvements in market transparency and liquidity. Through a well-structured and publicized auction schedule, supported by around 45 primary dealers, liquidity in the onshore government bond market continues to make progress. During 2017, there were 76 benchmark government bonds issued by the Ministry of Finance, ranging in size from CNY 20 billion (USD 3 billion) to over CNY 112 billion (USD 17 billion) with maturities ranging from 1–50 years. This consistent and structured auction schedule ensures that there is a well-defined "on-the-run" yield curve in onshore China government bonds.

Figure 7: Key Features of the Chinese Bond Market

Type	Sector	Key Issuers	% of Total Market	Maturities	Amount Outstanding (CNY Billions)	Market
Rates Market						
Government Bonds	Sovereign	Ministry of Finance	18	3m–50yr	13,434	CIBM & Exchange
Policy Bank Bonds	Quasi-Sovereign	China Development Bank Agricultural Development Bank of China Export-Import Bank of China	18	6m–50yr	13,349	CIBM & Exchange
Local Government Bonds (Munis)	Provincial and Local Governments	Provinces and Municipalities	20	1yr–10yr	14,745	CIBM & Exchange
Credit Market						
Corporate Bonds (including MTN)	Corporates	Domestic Nonfinancial Corporates	13	3yr–30yr & Perpetuals	9,948	CIBM & Exchange
Financial Bonds	Financials	Domestic deposit taking institutions, securities and insurance companies	7	3yr–10yr	4,999	CIBM & Exchange
Enterprise Bonds	Corporates	Unlisted corporates and private placements (mostly state-owned)	7	3yr–30yr	5,076	CIBM & Exchange
Money Market						
Certificates of Deposit	Financials	Domestic Banks	11	3m, 6m, 9m, 1yr	7,993	CIBM
Commercial Paper	Corporates	Domestic Nonfinancial Corporates	2	<1yr	1,516	CIBM
Other	Other	ABS, Converts, Other	5	Various	3,601	
			100		**74,662**	

Source: State Street Global Advisors, HSBC, Wind as of December 2017. CIBM=Chinese Interbank Bond Market, ABS=asset back securities.
Features are as of the date indicated, are subject to change, and should not be replied upon as current thereafter.

Figure 8: Indicative Bid-Offer Spreads in the Chinese Onshore Bond Market for on-the-run and off-the-run Bonds

Bid-Offer Spread	On the Run	Nominal Market Trade Size (CNYmn)	Off the Run
Government Bonds	1–3bps	50–100	4–10bps
Policy Bank Bonds	1–3bps	50–100	5–7bps
Local Governments	5–10bps	50–100	>10bps
Financials	2–5bps	100–200	5–8bps
Corporates	3–10bps	20–500	>10bps

Source: State Street Global Advisors, estimates as of December 31, 2017. The above estimates are based on certain assumptions and analysis made by State Street Global Advisors. There is no guarantee that the estimates can be achieved.

Figure 9: Comparison of Access Channels to China Onshore Bond Market

Date	Channel	Quota	Quota Size (billions)	No. of Investors	Application Procedure	Timing	Restrictions
2002	QFII	Yes	USD 80	c.280	Registration & PBoC approval	12–18 months	Lock-up period
2011	RQFII	Yes	USD 70 (CNY 471)	c.180	Registration & PBoC approval	12–18 months	Lock-up period
2016	CIBM	No	Unlimited	N/A	Filing only	20 days acknowledgement, 2 months to trading	CNY in = CNY out (+/- 10%)
2017	Bond Connect	No	Unlimited	N/A	Filing only	2–4 weeks	Zero balance to be maintained onshore. Surplus RMB will be repatriated back to HK automatically on a daily basis

Source: State Street Global Advisors, People's Bank of China (PBoC) as of May 31, 2018. QFII = qualified foreign institutional investor, RQFII = renminbi qualified foreign institutional investor.

New bonds remain "on-the-run" for at least a year after issue, and in some cases for up to two years; thereafter, market flow and secondary demand begins to taper off. With a strong auction pipeline and a healthy two-way secondary market, liquidity in these more recently issued, on-the-run bonds can provide sufficient depth for investors to manage exposures quite effectively. Domestic investors have more of a buy and hold mindset, but with so many market participants — and close to 50 dealers — flow in these on-the-run issues has generally been good: we estimate that on-the-run bonds have consistently traded on a 1–3 basis point bid/offer spread (see Figure 8). For "off-the-run" bonds issued earlier, liquidity can become challenging. But for strategic long-term investors who require less liquidity, value can be unlocked in continuing to hold these issues.

Within other sectors, a similar dynamic exists between on- and off-the-run bonds. Policy bank bonds, which investors consider as sovereign credit quality, tend to enjoy better off-the-run liquidity given their higher yield spreads versus government bonds. The relatively new local government bond market is still developing, but thus far demonstrates much greater differentiation by issuer based on variations in provincial credit quality and fiscal positions.

Among corporate bonds, as with all credit markets, there is significant differentiation by issuer depending on perceived credit quality, sector trends, issuance patterns and liquidity. Transparency in this market remains well behind developed market standards — in particular, the quality of financial reporting is still poor, leaving investors with a significant challenge from a credit evaluation perspective. Investors also have to rely more heavily on the local credit rating agencies, as the established global credit rating agencies are largely still absent from this market. Rising Chinese corporate bond defaults are also a concern, so investors have to distinguish carefully between sector and issuer exposures.

Chinese nonfinancial corporates, which make up 20% of the total onshore bond market, have been the main source of negative credit headlines and losses. The bankruptcy laws and workout process are still evolving in China, and this may deter many foreign investors from becoming very deeply involved in the corporate credit market.

Accessing the Onshore China Bond Market

China's deliberate policy changes have begun to trigger a noticeable shift in investor attitudes towards the country's bond market (see Key Policy Developments for Foreign Investors). Having now satisfied many investor criteria with improved access and hedging capabilities, index inclusion is underway initially for emerging market indices followed closely by developed market global bond indices.

The new access programs afford the most flexible treatment on currency conversion such that foreign investors can now convert currency into CNY to invest in onshore bonds and repatriate the proceeds upon sale/exit (see The Currency Question). With the additional measures (CIBM direct and Bond Connect) offering faster and quota-free access to the Chinese Interbank Bond Market, we expect new investors to enter the market through these channels, rather than via the original two qualified foreign institutional investor channels already in place. Accessing the onshore market will become much easier and more attractive for international investors as a result.

Experience of navigating these earlier processes as well as understanding domestic investor behavior and liquidity preferences will, however, remain key to managing portfolios successfully in the onshore market. In our opinion, investors should not underestimate the time required from the appointment of a local custodian to then actually trading and settling bonds onshore (see Figure 9). In this case, registration time for Bond Connect can be much shorter. Under either channel, a clear understanding of the operational models and negotiation of the Bond Service Agreement are required. Having an experienced operations team on the ground is important to understand these key elements of the bond confirmation process, and to be able to liaise with the custodian for the settlement and repatriation process.

Key Policy Developments for Foreign Investors since 2016

1. New investment channel giving Overseas Institutional Investors (OIIs) quota-free access to the Chinese Interbank Bond Market (CIBM) after a simple investor registration process.
2. Expanded list of eligible investors that include many types of long-term institutional investors including commercial banks, insurers, asset managers, pension funds, charity funds and endowments. Note that short-term or "speculative" investors are specifically excluded.
3. Repatriation restrictions for currency transactions and holding periods for bonds have been eliminated, thereby enabling free flows into and out of the CIBM for OIIs.
4. Flexibility for OIIs to hedge currency exposure via the onshore FX market through their settlement agent bank.
5. Inclusion of the Chinese yuan in the IMF's Special Drawing Rights (SDR) with a weighting of 10.9% — the third largest of the five currencies in the basket. This development pushes the yuan further along the path to becoming a global reserve currency.
6. China-Hong Kong Bond Connect (northbound link) established and CIBM opened up to global investors with a de facto end to quotas.

As these positive developments continue to materialize, China is moving ever closer to major fixed income indices. In March 2018, Bloomberg announced that it will add China government and policy bank bonds to its Global Aggregate Bond Index from April 2019. According to market estimates, USD 2.5 trillion of funds are benchmarked to the Global Agg, so a 5.6% estimated China weight is likely to bring about USD 140 billion of inflows into CNY-denominated government and policy bank bonds. Given the scale of this capital flow, we believe that index providers and investors will take a measured rather than a "big bang" approach to investing in the China onshore bond market.

Index Inclusion, Portfolio Impact and Implementation

The catalyst for many institutional investors to invest in China will likely be driven by index inclusion. For EM local currency investors, China's bond market size makes it likely to reach the 10% country cap; but it is expected to enter key EM indices on a staged basis — perhaps 0.5% a month — possibly beginning later this year as indicated by JP Morgan. For DM investors, with Bloomberg Barclays already publishing parallel indices that contain an indicative China weighting, early indications are that China would enter these indices with approximately a 5.6% weight, with the largest index weight reductions from the US, Eurozone, Japan, the UK and Canada.[4]

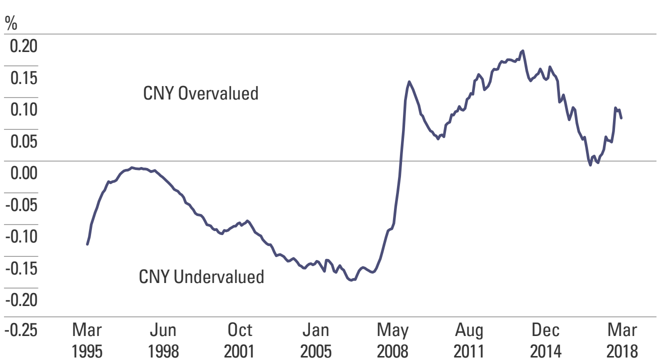
While Chinese bonds will technically be available to all international investors, not all asset managers will have the necessary local knowledge or experience to be able to offer this choice to their clients. At State Street we have that skillset and can evaluate the opportunity with our clients to determine the optimal exposure and implementation approach to take.

THE CURRENCY QUESTION

The onshore Chinese bond market is clearly moving toward becoming a core market for investors, but worries about potential currency risks remain. As a developing market, China is still subject to fluctuating investor sentiment and short-term volatility is likely against the backdrop of rising US Treasury yields. The currency risk can also be beneficial to investors, as happened last year and at the start of 2018, when the renminbi rose over 10% against a falling dollar, reversing the declines of 2016. Chinese authorities have long targeted a floating exchange rate regime — albeit a "managed" one, targeting volatility control rather than managing to an absolute level. Currently, we estimate the renminbi to be moderately overvalued against the US dollar on a Purchasing Power Parity (PPP) basis. In order for capital controls to be lifted completely, therefore, we anticipate the currency could track lower as the exchange rate regime is gradually liberalized over time.

At present, China's government is overweight foreign assets via its USD 3 trillion of official reserves,[5] while capital controls have restricted private sector ownership of foreign assets. Likewise, foreign investors are underweight Chinese assets. As capital controls are eased over time, there may be net outflows from China. The authorities could manage the pace of capital outflows by maintaining some capital controls while relaxing the rules to allow greater capital inflows as shown by the inclusion of A-shares in MSCI indices and the onshore bond market in global fixed income indices. China could also sell down reserves to offset some of the outflows, which would also serve to limit potential currency depreciation. We believe that these counterbalancing measures and flexibility reduce the possibility of accidental currency devaluation. Trade tensions may also contribute to future currency volatility, including the possibility that Chinese authorities allow a strengthening currency to help reduce the Chinese trade surplus with the US.

Figure 10: Chinese Yuan Moderately Overvalued



Source: State Street Global Advisors, as of April 30, 2018.

Hedging Options for International Investors

The flexibility for foreign investors to freely hedge currency exposure will be an essential development on the road to opening up the CIBM to international investors — and an important hurdle to clear for index inclusion. According to the State Administration for Foreign Exchange (SAFE),[6] OIIs are now given direct access to the onshore foreign exchange (FX) market for hedging purposes. According to the circular, OIIs can follow the "Trading on Actual Needs" principle when conducting the FX derivatives business arising from the inward remittance related to CIBM investments. This ability to freely hedge currency exposures — via FX forwards, FX swaps, currency swaps and so on — may be among the last remaining barriers to investing in the CIBM and one that investors and index providers should follow very closely.

CONCLUSION

Since early 2016, China has been on a deliberate policy path to open up its financial markets to overseas institutional investors. Quota-free access, currency convertibility, new hedging flexibility and Bond Connect are examples of some of these significant developments, which have accelerated the case for the acceptance of China into the mainstream of fixed income. Furthermore, in an environment dominated by low sovereign yields and tight credit spreads, investors seeking diversification need to look further afield to unearth attractive yielding assets with low correlations to their core portfolio exposures. The China onshore bond market may offer such an opportunity that investors would do well to evaluate — especially as China is likely to be included in major fixed income indices in the near future.

1 State Street Global Advisors has accessed China Interbank Bond Market since 2005 through special arrangements from the PBoC and the State Administration of Foreign Exchange (SAFE) that allow our ABF Pan Asia Bond Index Fund to engage in CNY bond and FX transactions in that market.

2 China Central Depository & Clearing, Shanghai Clearing House, as of April 30 2018.

3 Morgan Stanley as of August 2016.

4 Bloomberg index universe statistics, as of March 31, 2018.

5 Bloomberg, People's Bank of China.

6 State Administration for Foreign Exchange (SAFE) Circular: Issues Concerning Chinese Interbank Bond Market Overseas Institutional Investors' Foreign Exchange Risk Control, and Relevant Q&A, February 27, 2017.

Glossary

Bloomberg Barclays China Treasury and Policy Banks 1–10 Years Index A sub-index of the China Aggregate Index, which tracks the CNY-denominated fixed income market.

Bloomberg Barclays Euro Aggregate Treasury Total Return Index An index designed to track fixed-rate, investment-grade public obligations of 13 sovereign nations within the European Monetary Union.

Bloomberg Barclays Global Aggregate Treasury An index designed to track fixed-rate, local currency government debt of investment grade developed and emerging market nations.

Citi USBIG Treasury Index An index designed to track US investment grade bonds denominated in USD.

FTSE USBIG Treasury Index An index designed to track US investment grade bonds denominated in USD.

Gross Domestic Product (GDP) The monetary value of all the finished goods and services produced within a country's borders in a specific time period.

iBoxx ABF Pan-Asia Unhedged Total Return Index An index designed to track debt obligations denominated in an Asian currency, issued or guaranteed by the government, quasi-government organizations or supranational financial institutions in China, Hong Kong, Indonesia, South Korea, Malaysia, Philippines, Singapore or Thailand respectively.

International Monetary Fund (IMF) A global body created to coordinate exchange rates and financial relations in order to promote global stability.

JP Morgan GBI-EM Global Diversified Composite Index A comprehensive emerging market debt benchmark that tracks local currency bonds issued by emerging market governments.

Off-the-run The bonds that were issued before the most recently issued government bonds.

On-the-run The bonds that were most recently issued by a government.

Special Drawing Rights (SDR) Supplementary foreign-exchange reserve assets defined and maintained by the IMF.

S&P 500 Index A market value weighted index of 500 stocks that reflects the performance of a large cap universe made up of companies selected by economists.

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