Investment Insights

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For global professional / qualified / institutional clients and investors and US retail clients and investors

Q4 2018

The internationalization of China's capital markets continues apace. The weighting of Chinese equity in key global indices is set to increase significantly in the next few years. Meanwhile, China's fast growing but often overlooked onshore bond market is set for a 'big bang' moment with its inclusion in key benchmark indices from April 2019. *Investment Insights* addresses the increasingly compelling case for a standalone multi asset exposure to China.

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The multi asset opportunity in China

Louis D. Finney and Max Luo

Highlights

- Continued internationalization of capital markets and increased weightings in key equity and fixed income benchmarks look set to continue sharpening international investors' interest in China
- As investors consider how best to access this fast-evolving growth and income opportunity set, we consider the merits of a standalone exposure to China within a global multi asset portfolio
- Diversification benefits of individual Chinese asset classes are compelling. But to hedge or not to hedge?
- Hedging CNY exposure into USD has resulted in less attractive risk-adjusted returns than local currency exposure to either onshore Chinese equities or local China bonds in the past – but as USDCNY hedging becomes increasingly available and its costs fall the benefits of removing currency risk may suit some investors
- Correlation between local currency onshore Chinese equities and onshore bonds has been negative historically – reinforcing the portfolio benefits of exposure to both Chinese asset classes together
- Our analysis reveals that allocating to both onshore Chinese equities and bonds has improved the risk/return characteristics of a global multi asset portfolio

The Chinese equity market opened in Shanghai on December 19, 1990, when seven stocks kicked off the first trading session of the Shanghai Stock Exchange. With around 3,500 listed companies with a combined capitalization of over USD 7trn, it's fair to say that the onshore Chinese equity market has progressed over the subsequent three decades.

But despite this progress, the pace of reform and liberalization in China's capital markets shows little sign of slowing. On the equity side, less onerous IPO rules are likely to see the equity opportunity set continue to broaden just as increased weightings in key MSCI and FTSE equity benchmarks look set to continue sharpening international investors' interest.

On the fixed income side, international investors have been able to access the onshore CNY-denominated China bond market for years, but the spotlight of global fixed income investors is about to shine very brightly in China's direction. The inclusion of Chinese local bonds in the widely followed Bloomberg indices in April 2019 is potentially transformative. Inclusion is likely to accelerate the internationalization of China's currency and prompt a massive reallocation of global capital towards China – all while providing the Chinese government, State Owned Enterprises and corporates with access to capital.

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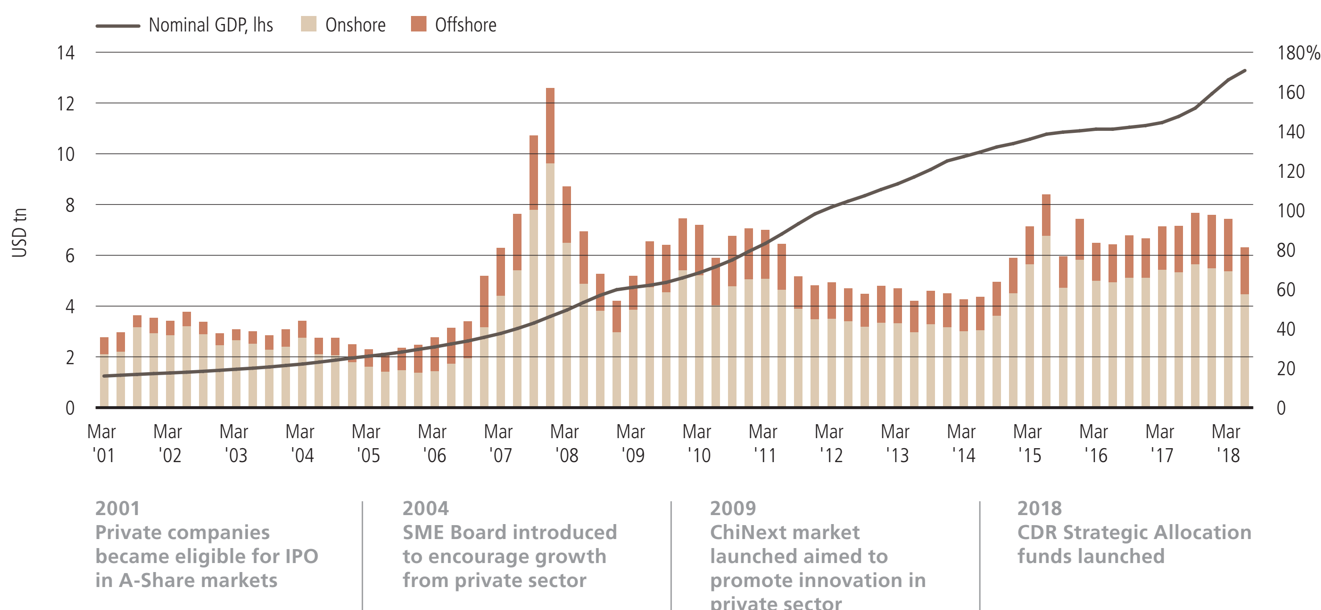
Exhibit 1: Onshore and Offshore Chinese Equities Market Cap as % of GDP



Source: UBS AM, Wind as at June 30, 2018.

It is hardly original to state that global investors are significantly underinvested in China relative to its contribution to global GDP. In our view, the question for globally diversified investors is no longer whether an allocation to China's powerful and opportunity-rich economic story is appropriate. From a global benchmark index perspective China is quickly becoming way too big to ignore. Instead the question is how best to access this fast-evolving growth and income opportunity set in an efficient and balanced manner that improves potential risk-adjusted returns for the long term. This month's *Investment Insights* reviews the case for a stand-alone multi asset exposure to China.

Chinese equities – growth opportunities and diversification benefits

The discrete case for Chinese equities as China's assimilation into global capital markets accelerates has been made powerfully by our Chinese equity team over recent years. To visit our China microsite **click here**. We focus here on the characteristics and benefits of Chinese equities within a broader multi asset portfolio context.

In the table below we show the correlation of Chinese onshore equities (MSCI China A Shares) and Chinese offshore equities (MSCI China ex A Shares) to their major international peers. Our analysis reveals that Chinese equities have demonstrated some attractive qualities from a portfolio perspective historically.

Exhibit 2: Global equity statistics, February 2002 to September 2018 (USD)

Annualized	Return (%)	Volatility (%)	Risk-adj. return	Correlations	1	2	3	4	5	6	7	8
MSCI North America	8.2	14.0	0.59	1	1.00	0.88	0.73	0.62	0.31	0.77	0.73	0.72
MSCI Europe	4.3	18.6	0.23	2	0.88	1.00	0.78	0.67	0.33	0.79	0.82	0.76
MSCI Pacific	4.6	15.3	0.30	3	0.73	0.78	1.00	0.69	0.32	0.78	0.80	0.70
MSCI China ex A-Shares	10.6	25.8	0.41	4	0.62	0.67	0.69	1.00	0.58	0.77	0.72	0.69
MSCI China A-Shares	12.5	31.3	0.40	5	**0.31**	**0.33**	**0.32**	**0.58**	**1.00**	**0.40**	**0.33**	**0.36**
MSCI EM Asia ex China	7.3	21.3	0.34	6	0.77	0.79	0.78	0.77	0.40	1.00	0.81	0.77
MSCI EM EMEA	1.9	24.1	0.08	7	0.73	0.82	0.80	0.72	0.33	0.81	1.00	0.86
MSCI EM LATAM	4.4	26.9	0.16	8	0.72	0.76	0.70	0.69	0.36	0.77	0.86	1.00

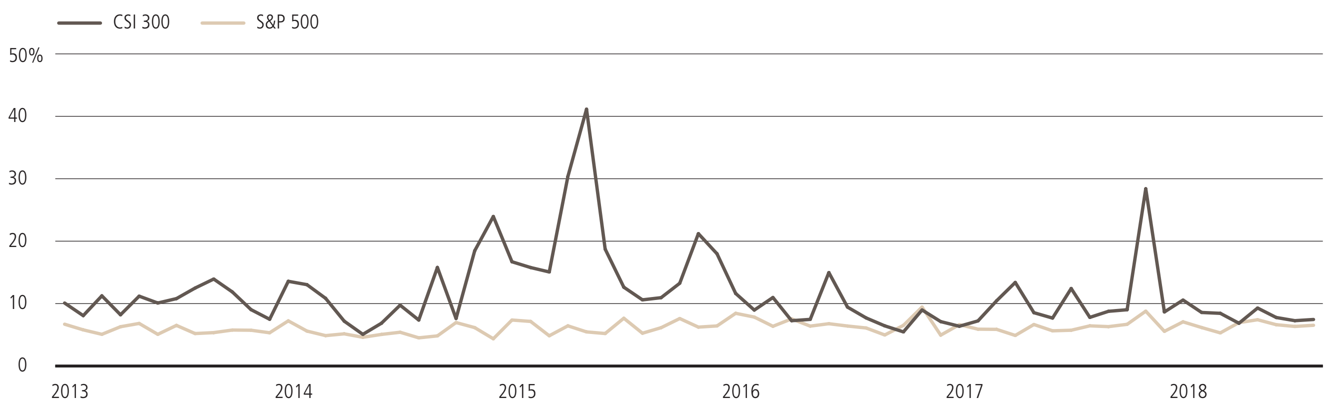
Source: UBS AM, Bloomberg as at September 30, 2018.

Perhaps unsurprisingly, onshore Chinese equities appear to be less correlated with global equities than offshore Chinese shares. Offshore equities have delivered stronger returns, reflecting at least in part the prior preference of Chinese technology companies to list overseas. But after the structural reforms of recent years, we would expect the characteristics of A-Shares and offshore equities to gradually converge.

Apart from the higher returns, the other characteristic that stands out is Chinese equities' higher volatility. And while the Chinese authorities appear to have learned from the execution and communication mistakes of the past, it would be foolish to believe that higher volatility is not going to continue, at least in the short term. The transformation from a heavy manufacturing bias to a greater focus on services and other 'new economy' sectors is unlikely to be completed without some minor road bumps along the way, even if that transformation should reduce economic and asset price volatility over the long term. And the economic and political structure of China means that the government will still have a visible hand on financial markets going forward. Visibility on regulatory change is also low.

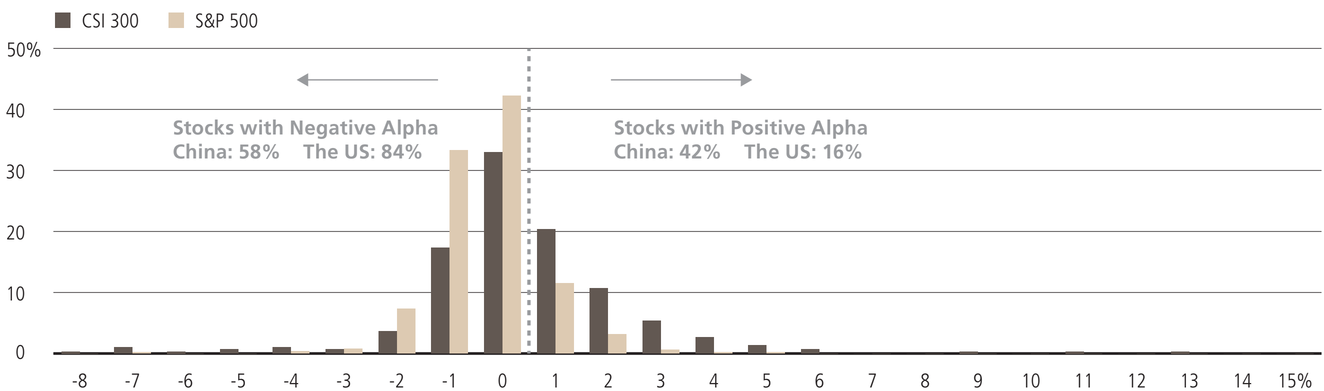
But there is opportunity for skilled active managers within this volatility. Mirroring the higher volatility at the index level, the cross-sectional volatility of Chinese equity returns is much higher in China than in the US. For active managers, this represents a rich opportunity set. The spread of returns compared to the very narrow bias of the US equity market is further reflected in single stock regression analysis. In China, 42% of the CSI 300, the most widely used onshore equity benchmark, outperformed the index return on a beta-adjusted basis. This contrasts sharply with the S&P 500 where just 16% of constituents outperformed the index on a beta-adjusted basis over the same time horizon.

Exhibit 3: Cross-sectional monthly return volatility: Chinese vs. US Equities



Source: Bloomberg as at August 31, 2018.

Exhibit 4: Alpha distribution: Chinese vs. US Equities



Source: Bloomberg, using data between January 1, 2013 and August 31, 2018.

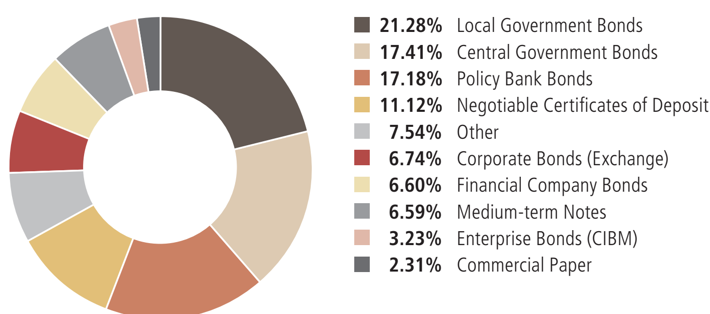
Chinese bonds – higher yields with diversification benefits

China now hosts the world's third largest fixed income market, preceded only by the U.S. and Japan. Around 60% of the bond issuance in China is government and policy bank bonds – but the universe continues to deepen and broaden.

A number of regulatory changes and reforms are helping make China's bond market more attractive to overseas investors. These include important moves to unify the multiple regulators and exchanges that have previously existed across Chinese rates markets and added unnecessary complexity. In April 2018, the People's Bank of China (PBOC) introduced new Asset Management Product rules that are widely considered a watershed moment for the development of the Chinese fixed income market. The new rules represent a critical step in bridging the gap in market practices between the Chinese and global financial markets, removing a number of anomalies that had previously distorted the local China bond market and compressed long-term yields and credit spreads relative to international markets.

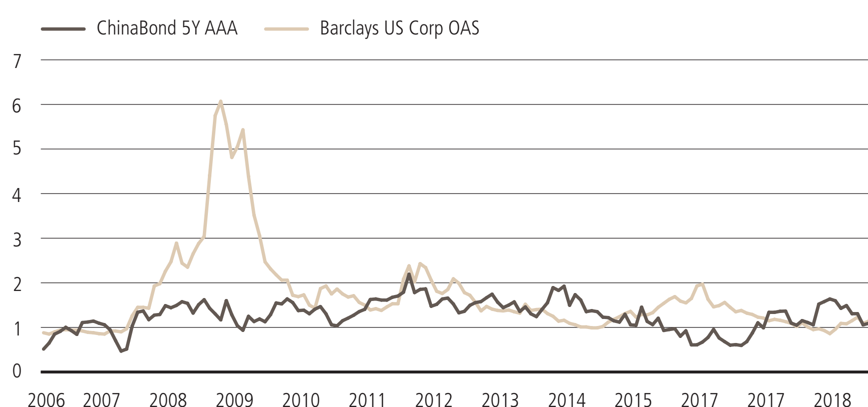
Welcoming the reforming efforts of the authorities, JP Morgan put China on "Index Watch" in March 2016 for potential inclusion into the important GBI-EM index suite. In February 2018, FTSE included China in three regional government bond indices and put China under review for inclusion in its flagship World Government Bond Index. In March 2017, Bloomberg introduced two hybrid bond indices that include Chinese onshore bonds. In March 2018, Bloomberg announced that it will add Chinese onshore government and policy bank bonds into the flagship Global Aggregate, Global Treasury, and EM Local Currency Government Indices over a 20-month period starting April 2019. The move could see some USD 3trn of capital reallocated to local China bonds and is likely to play an important role in accelerating the internationalization of Chinese capital markets.

Exhibit 5: Market weights of fixed income instruments (%)



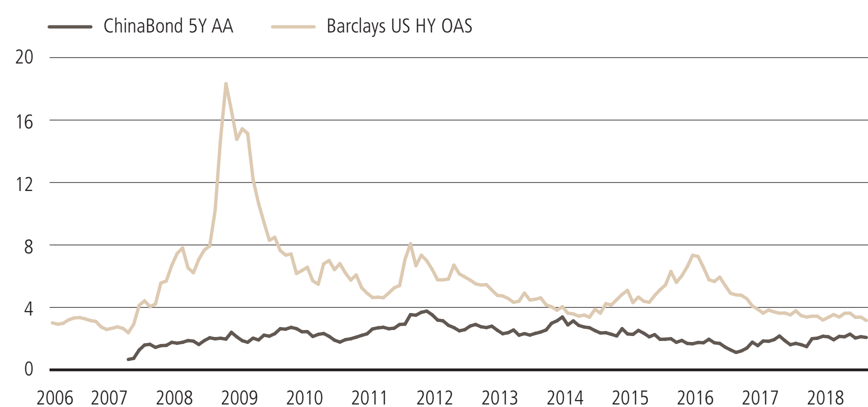
Source: UBS AM, Wind as at August 31, 2018.

Exhibit 6: IG spreads: China vs. US



Source: UBS AM, Bloomberg as at September 30, 2018.

Exhibit 7: HY spreads: China vs. US



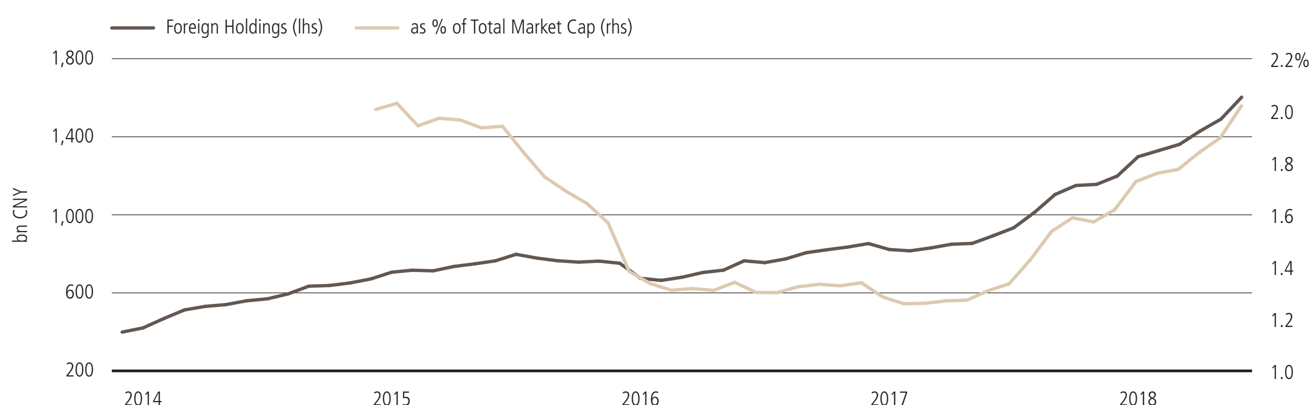
Source: UBS AM, Bloomberg as at September 30, 2018.

Against this backdrop, foreign holdings of onshore Chinese bonds have been growing at a compounded annual rate of 36% since January 2014 – a rate that looks unlikely to slow as China's bond markets take center stage into 2019 and beyond.

Powerful as it is, the story of China local bonds is not just one of index inclusion. There are, in our view, strong fundamental reasons for active investors to increase their allocation to Chinese local bonds too.

Chinese bonds continue to offer attractive nominal and, more importantly, real yields. Over the longer term, we might see a secular shift up at the long end of the yield curve as the new regulation on the AMP rules trickles down, as risk premia normalize to the new norm. Over the past 5 and 10 years, Chinese bonds have delivered superior risk-adjusted returns to all major sovereign peers. But crucially for international investors, those attractive risk-adjusted returns have also exhibited a low correlation to other major bond markets, reinforcing the notion that risk premia across Chinese asset classes are largely independent of those exhibited in other major equity and bond markets. We believe that an allocation to China's fast developing local bond market can boost the risk-adjusted returns for a wide variety of global multi asset portfolios.

Exhibit 8: Foreign holdings of Chinese onshore bonds



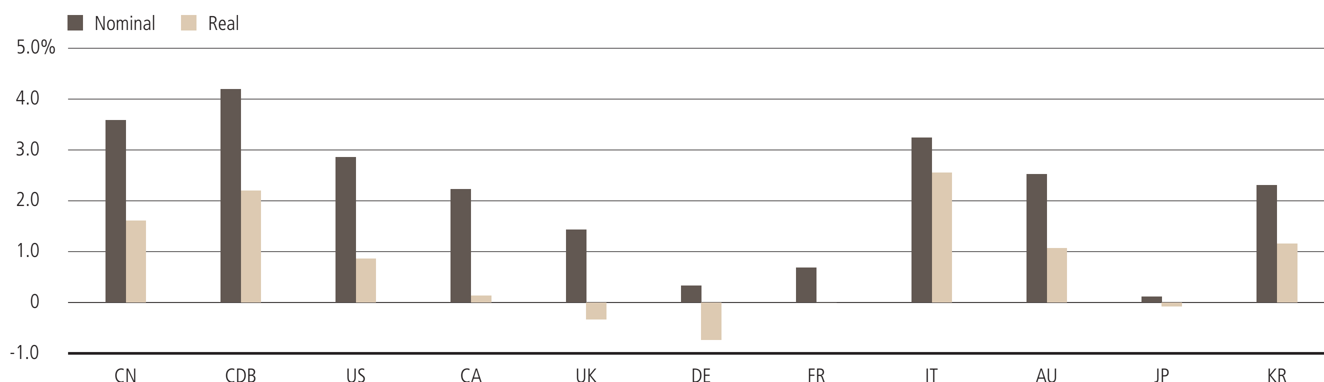
Source: UBS AM, Wind as at June 30, 2018.

Exhibit 9: Global bond statistics, October 2005 to September 2018 (USD)

Annualized	Return (%)	Risk (%)	Risk-adj. Return		1	2	3	4	5	6	7	8
												Correlations
Barclays US Agg Hdg	3.9	3.1	1.24	1	1.00	0.77	0.58	0.58	0.34	0.13	0.14	0.46
Barclays Global ex-USD Agg Hdg	4.0	2.5	1.60	2	0.77	1.00	0.34	0.49	0.18	0.11	0.13	0.26
JPM EMBI Global Divf Hdg	6.7	8.2	0.82	3	0.58	0.34	1.00	0.68	0.73	0.09	0.10	0.84
JPM GBI-EM Hdg	3.7	4.3	0.87	4	0.58	0.49	0.68	1.00	0.74	0.14	0.23	0.50
JPM GBI-EM Unh	4.1	12.8	0.32	5	0.34	0.18	0.73	0.74	1.00	0.03	0.21	0.59
Barclays China Agg Hdg	3.8	2.9	1.28	6	0.13	0.11	0.09	0.14	0.03	1.00	0.56	0.04
Barclays China Agg Unh	5.1	3.3	1.52	7	0.14	0.13	0.10	0.23	0.21	0.56	1.00	0.06
JPM China Credit	5.8	9.0	0.64	8	0.46	0.26	0.84	0.50	0.59	0.04	0.06	1.00

Source: UBS AM, Bloomberg as at September 30, 2018.

Exhibit 10: Global government 10-year yields (%)*



*Real yields is taken as the differences between the 10-year nominal yields and core CPI yoy growth rates. CDB stands for China Development Bank, which is one of the three policy banks in China and a major player in the primary bond market.
Source: UBS AM, Wind as at September 30, 2018.

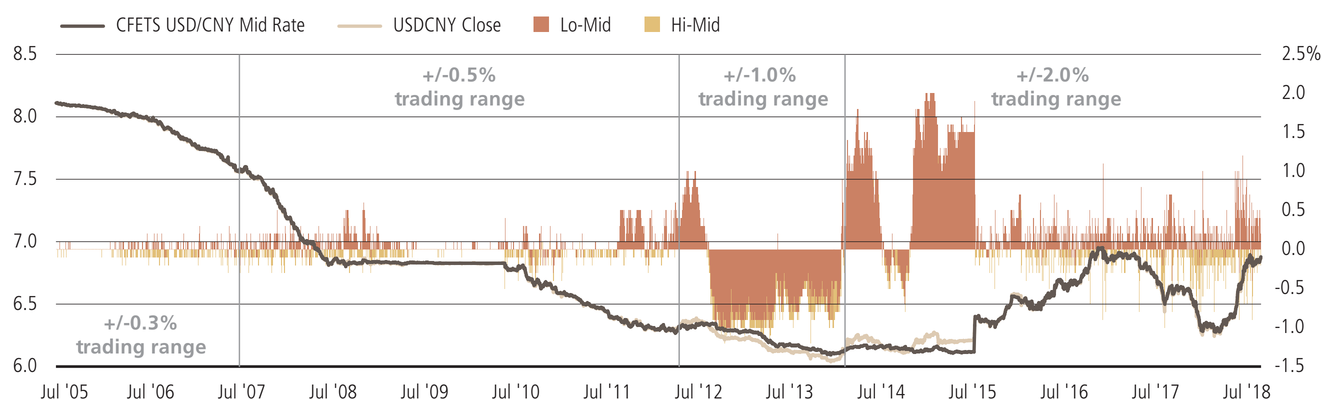
Exhibit 11: Correlations of monthly changes of 10-year sovereign bond yields, February 2002 to September 2018

	CN	CDB*	US	CA	UK	DE	FR	IT	AU	JP	KR
CN	1.00	0.61	0.14	0.16	0.18	0.19	0.18	0.05	0.20	0.08	0.14
CDB	0.61	1.00	0.09	0.11	0.12	0.14	0.14	0.04	0.20	0.12	0.12
US	0.14	0.09	1.00	0.86	0.81	0.80	0.75	0.36	0.76	0.45	0.47
CA	0.16	0.11	0.86	1.00	0.79	0.75	0.71	0.34	0.75	0.44	0.44
UK	0.18	0.12	0.81	0.79	1.00	0.83	0.78	0.28	0.73	0.43	0.44
DE	0.19	0.14	0.80	0.75	0.83	1.00	0.93	0.38	0.72	0.41	0.42
FR	0.18	0.14	0.75	0.71	0.78	0.93	1.00	0.52	0.67	0.40	0.41
IT	0.05	0.04	0.36	0.34	0.28	0.38	0.52	1.00	0.27	0.21	0.19
AU	0.20	0.20	0.76	0.75	0.73	0.72	0.67	0.27	1.00	0.39	0.46
JP	0.08	0.12	0.45	0.44	0.43	0.41	0.40	0.21	0.39	1.00	0.21
KR	0.14	0.12	0.47	0.44	0.44	0.42	0.41	0.19	0.46	0.21	1.00

Source: UBS AM, Bloomberg as at September 30, 2018.

A more internationalized and market driven Chinese yuan (CNY)
Of course, for many international investors the outlook for the CNY is an important factor in their decision to invest in onshore Chinese equities and bonds. One of the first major reforms executed by China after joining the WTO in 2001 was to change its currency policy in July 2005 from being pegged to the US dollar to so-called 'managed floating'. Initially, the USDCNY was only allowed to float within the range of +/-0.3% of the official mid fixing rate announced by the PBoC in the morning of every trading session. The range was subsequently expanded to +/-0.5% in May 2007, and then to +/-1.0% in April 2012, and eventually to +/-2.0% in March 2014. During the Global Financial Crisis and its aftermath, between August 2008 and June 2010, the PBoC temporarily pegged CNY back to the USD to fight the extreme uncertainty and to address worries about capital outflow. But it's important to remember that the CNY is still an evolving currency. As China further opens up its economy and markets, CNY should become increasingly used in trade as well as in financial markets.

Exhibit 12: CNY trading range against USD



Source: UBS AM, Bloomberg as at September 30, 2018.

An obvious characteristic of a managed floating currency regime is compressed volatility compared to a completely free-floating currency. From a currency risk management perspective, this is clearly a positive. The flipside of this benefit is that the PBoC has a long history of tightening capital controls just as investor concerns about CNY depreciation peak, just as it did in 2015.

As we observe the market, one of the most significant drivers of USDCNY tends to be the interest rate differential. Historically, there have been brief periods of divergence between the interest rate differential and USDCNY, but overall the historical relationship between the two has generally been strong.

As we observe the market, one of the most significant drivers of USDCNY tends to be the interest rate differential.

Exhibit 13: Currency volatility against USD

DM FX/USD

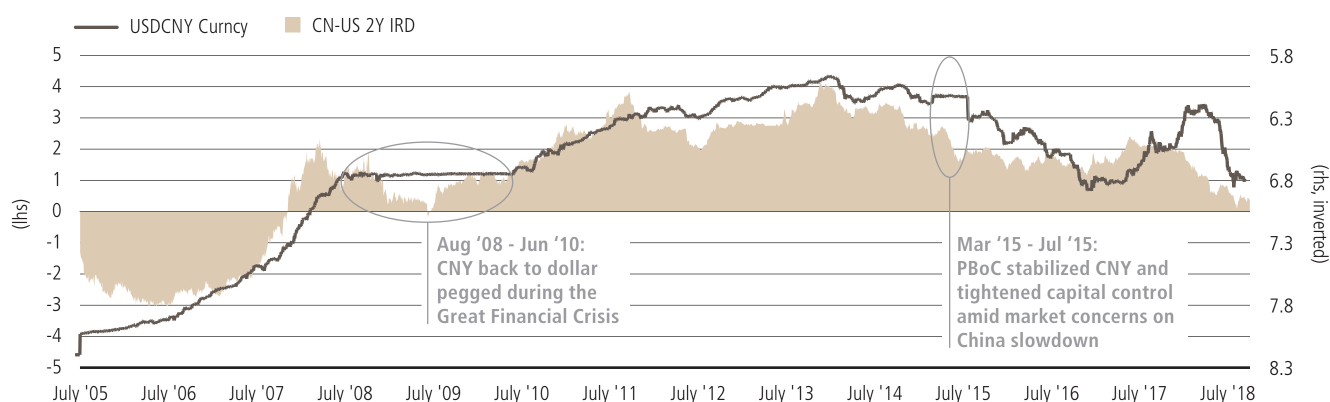
Ann. Vol.		CNY (%)	EUR (%)	JPY (%)	GBP (%)	CHF (%)	CAD (%)	SEK (%)	NOK (%)	AUD (%)	NZD (%)
8/31/2005	7/31/2008	1.5	6.2	7.9	6.1	8.3	8.8	9.1	9.2	10.2	11.4
7/31/2010	9/30/2018	3.3	9.4	9.3	8.3	9.8	8.5	10.8	11.5	11.7	12.6

EM FX/USD

Ann. Vol.		CNY (%)	KRW (%)	INR (%)	TWD (%)	RUB (%)	ZAR (%)	TRY (%)	BRL (%)	MXN (%)	COP (%)
8/31/2005	7/31/2008	1.5	6.3	6.2	4.7	3.2	14.9	14.5	12.7	5.7	14.3
7/31/2010	9/30/2018	3.3	9.1	8.8	5.1	17.1	14.8	14.5	15.3	11.7	12.8

Source: UBS AM, Bloomberg as at September 30, 2018

Exhibit 14: China-US 2Y Interest Rate Differential vs. USDCNY



Source: UBS AM, Bloomberg as at September 30, 2018.

Exhibit 15: USDCNY correlations with onshore equities and bonds

	Since Jul 2005	Since Sep 2008	Last 5 years	Last 3 years
MSCI China A-Shares TR Local	0.07	0.13	0.26	0.32
Barclays China Agg TR Local	-0.16	-0.18	-0.18	-0.18

Source: UBS AM, Bloomberg as at September 30, 2018.

Exhibit 16: Chinese asset returns and volatility in local, USD unhedged and hedged terms

	Annualized returns (%)			Annualized volatility (%)		
	Jul-05	Oct-13	Oct-15	Jul-05	Oct-13	Oct-15
	Sep-18	Sep-18	Sep-18	Sep-18	Sep-18	Sep-18
MSCI China A-Shares TR Local	11.3	5.0	-2.8	30.7	24.5	20.6
MSCI China A-Shares TR USD Unhedged	12.9	2.6	-5.2	31.1	25.7	22.4
MSCI China A-Shares TR USD Hedged	11.4	4.2	-6.0	30.9	24.8	20.7
Barclays China Agg TR Local	3.9	4.7	3.3	2.3	2.9	2.7
Barclays China Agg TR USD Unhedged	5.4	2.3	0.6	3.4	4.5	4.9
Barclays China Agg TR USD Hedged	4.0	4.0	-0.1	3.0	3.8	2.8
USDCNY Spot	1.5	-2.2	-2.3	2.9	3.9	4.6
USDCNY Hedge Cost	-1.3	1.6	-0.8	3.3	4.6	4.7

Source: UBS AM, Bloomberg as at September 30, 2018.

In common with many other emerging market currencies, USDCNY has historically shown a positive correlation with emerging equities and specifically with onshore Chinese equities in local currency terms. Therefore from a USD investor's perspective, the CNY exposure actually increases the potential volatility of onshore equities. This contrasts with the negative correlation between USDCNY and onshore Chinese bonds. This implies that the risk of onshore bonds and USDCNY could partially offset each other.

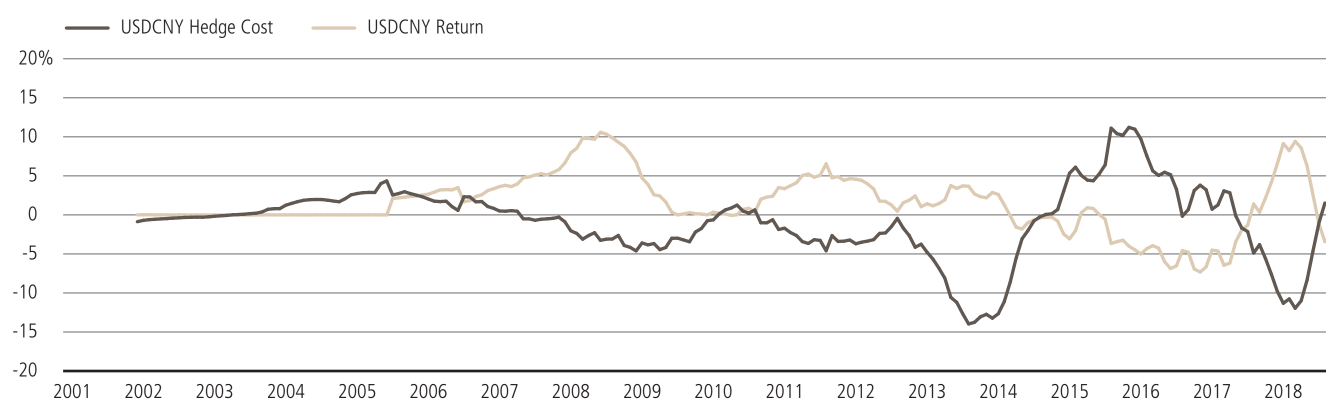
Historically, the currency effect on onshore returns and volatility has been proportionately more significant on Chinese bonds than on Chinese equities. For investors who might have applied a passive hedging strategy on USDCNY to remove currency risk, the 13-year average hedging cost using CNY forwards is -1.3% per annum with an annualized volatility of 3.3%. Based on a normalized distribution, this implies that hedging costs have been between a -4.6% loss and a 2.0% gain for over two-thirds of the 13-year time period we have analyzed.

Crucially for many investors, hedging costs between the Chinese yuan and the US dollar have fallen in recent months as the yuan weakened against the dollar – providing international investors with an important tool as they consider the merits of China's local bond market.

Equities and bonds from a cross-asset perspective

We have seen so far that onshore Chinese equities and bonds tend to show low correlation with their international peers. In fact, the correlation between onshore Chinese equities and local bonds is also very low, even when the currency exposure of the bonds is left unhedged. This means that there is real merit for investors in considering an allocation to both Chinese equities and bonds when building a global multi asset portfolio.

Exhibit 17: Realized Trailing 1Y USDCNY Hedge Cost



Source: UBS AM, Bloomberg as at September 30, 2018.

Exhibit 18: Chinese onshore and offshore assets statistics, February 2002 to September 2018 (USD)

Annualized		Return (%)	Volatility (%)		Correlations				
					1	2	3	4	5
MSCI China ex A-Shares	Offshore	13.3	24.8	1	1.00	0.58	0.00	0.15	0.50
MSCI China A-Shares	Onshore	7.9	29.3	2	0.58	1.00	-0.02	0.08	0.30
Barclays China Agg Bonds Hedged	Onshore	4.2	3.0	3	0.00	-0.02	1.00	0.56	0.04
Barclays China Agg Bonds Unhedged	Onshore	4.9	3.3	4	0.15	0.08	0.56	1.00	0.06
JPM China Credit USD	Offshore	7.7	8.8	5	0.50	0.30	0.04	0.06	1.00

Source: UBS AM, Bloomberg as at September 30, 2018.

Exhibit 19: Simulated performance of global portfolios with and without allocation to Chinese assets

	Global portfolio unhedged	Global portfolio 100% hedged	Global portfolio unhedged	Global portfolio 100% hedged	Global portfolio unhedged	Global portfolio 100% hedged
		without China (%)		with 5% in China (%)		with 10% in China (%)
Annualized return	5.5	6.0	5.7	6.1	5.9	6.2
Annualized volatility	8.8	7.4	8.7	7.4	8.7	7.5
Return vs. risk trade-off	0.63	0.80	0.65	0.82	0.68	0.83

Source: UBS AM, Bloomberg between January 1, 2004 and September 30, 2018.

We believe global investors should consider the benefits of a distinct multi asset exposure to China as opposed to accessing the China story via a broader emerging market investment. As onshore markets are included in global indices and their weighting increases, China will soon become the largest component for any emerging market indices. It would be a prudent and probably natural step to consider China separately from EM ex-China, much like the case for the U.S. versus the World ex-US. The relatively low correlation of China's financial markets with broader overseas markets provides ample opportunities for return and risk diversification. And a large set of potential alpha opportunities as we showed earlier in this article makes a China allocation even more attractive. To capture such alpha, however, could prove tricky and requires special skills and dedicated efforts.

Clearly the appropriateness of any allocation to China is dependent on each individual investor's risk and return objectives. However, we illustrate below how a dedicated China allocation could benefit a typical global allocation with 50% global equities and 50% global bonds.

For the analysis we use the MSCI All Country World Index for global equity exposure and remove China (circa 3.4% as of September 2018). For bonds we use the Bloomberg Barclays Global Aggregate Index, which has no China exposure at the time of writing. We then test whether, first, adding 5% total China exposures with a 50/50 split between equities (both onshore and offshore) and onshore bonds, and then 10% split 50% equities/50% local bonds, would have benefited investors since January 2004, the longest common period among the indices that we use.

The key takeaways from our analysis are:

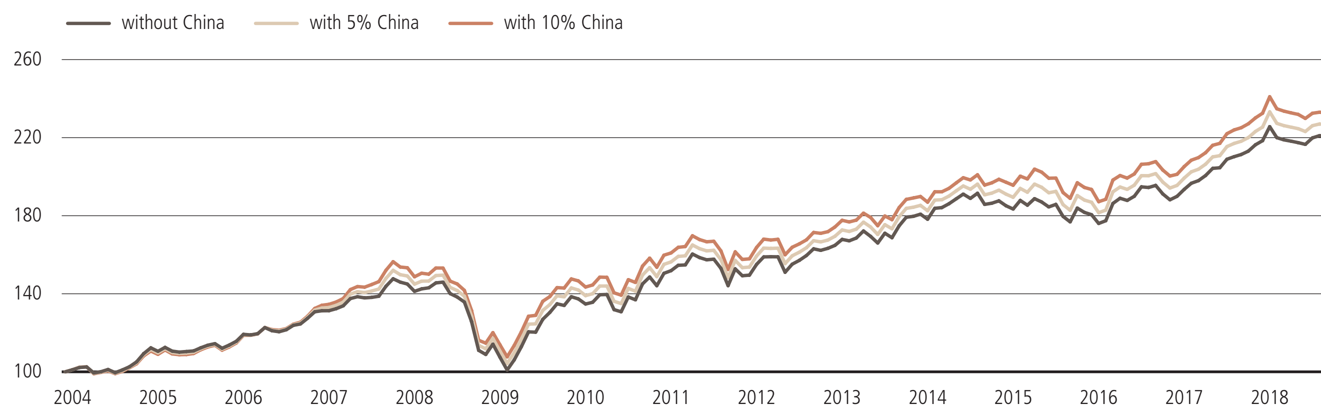
1. That adding equal exposures to Chinese equities and bonds improved the risk-adjusted return profile of our hypothetical portfolio, based on historic data.
2. Adding 10% exposure to Chinese assets improved the risk-adjusted returns potential more than adding 5%, based on historic data.

Obviously, there are no guarantees that historical performance will be replicated in the future. Nonetheless, we believe that the analysis highlights the potential benefits of a standalone China multi asset exposure – and that Chinese markets warrant specialist eyes.

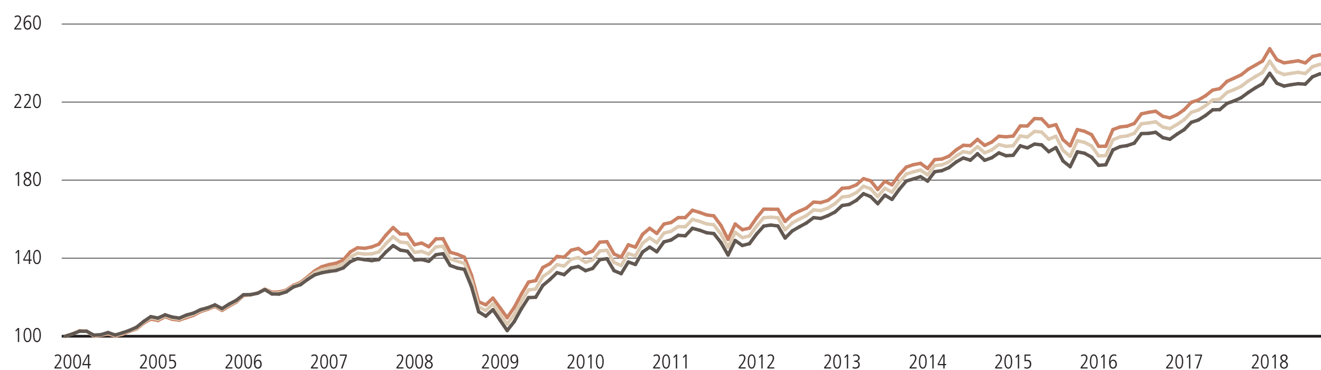
Few investors need reminding that Chinese equities have fallen sharply in 2018. Our view on a tactical basis is simply that the Chinese authorities face a particularly difficult balancing act in overseeing the deleveraging of China's economy and its transformation from capital inefficient global manufacturing hub to a more dynamic and consumer-focused modern economy. With measures aimed at curbing excess borrowing beginning to bite, the trade tensions with the US have not come at a good time, not to mention the lingering concerns on a global economic slow-down. But the structural story of China's increasing internationalization and growing importance to the global economy remains very much intact. In our view, it is not one that any investor can afford to ignore. And based on the potential improvement in global multi asset portfolio risk/return characteristics, it is not one that investors should ignore. In our view, there are now compelling reasons for combining exposure across Chinese asset classes to this long-term story and opportunity set.

Exhibit 20: Cumulative growth of global portfolios

USD unhedged



USD fully hedged



Source: UBS AM, Bloomberg as at September 30, 2018.

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