



# **Omba Advisory & Investments Limited**



## **Investing in The People's Republic of China An ETF Overview June 2019**

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# 1. Introduction

The Chinese equity landscape is quite unique and thus before investors participate in the Chinese equity capital markets a thorough understanding of its markets is crucial. This report analyses a selection of equity Exchange Traded Funds (ETFs) that each present broad, but quite different, exposures to the Chinese economic growth story.

China's importance to the global economy is frequently discussed but the influence of its equity capital markets, relative to the United States for example, can be debated. Disputes over trade, Taiwan's sovereignty, the South China Sea, Hong Kong-China extradition, the use of other's intellectual property and the very active yet opaque role of the state in the lives of its citizens may not align to the capitalist and more libertarian values of the West. Despite these and any other well-founded criticism, China's strong economic growth and its broader success story over the past four decades should not be under-recognised, which is evident from the below four points:

- The 6.6 per cent increase in gross domestic product in 2018 was China's lowest since 1990.<sup>1</sup>
- In 2015 there were over 1.4 billion people in China (19% of the global population), yet this figure is expected to start decreasing from early 2030s as the population gets older.<sup>2</sup>
- China is the world's largest exporter and the second largest importer of merchandise goods.<sup>3</sup>
- Of the world's 33 megacities – that is, cities with 10 million inhabitants or more – in 2018 China alone was home to 6 megacities. Paris is the only such city in western Europe with this status.<sup>4</sup>

In the context of a high-potential, globally important China, this report examines some of the key factors to consider when acquiring broad exposure to Chinese equity capital markets using Exchange Traded Funds (ETFs). Specific consideration is given to the topical changes by key index providers to increase the weight of China in their indices, causing billions of US Dollars to flow into Chinese capital markets. We also present important characteristics of China focussed ETFs, with some of our key observations being:

- Over the last 12 months the performance comparison between our selection of China ETFs ranged from -8.5% to -30.1%. At its worst drawdown over the last 5 years, nearly two thirds of one's capital value may have been lost depending on the ETF. On a positive note, holding the best-performing ETF would have returned 45.7% (in US Dollars) over the last 5 years.
- The overlap in underlying positions in the various ETFs is as low as zero where one ETF may target only US-listings, while another may target only A-shares.
- Valuation multiples, in the form of forward PE ratios, vary considerably between the ETFs. These typically range from mid-teens to upper 30s.
- The influence of State-Owned Enterprises (SOEs) is large, with SOEs making up as much as 27% of the underlying holdings in some ETFs. These SOEs are largely in the Financials sector. The Financials and Communication Services sectors on average make up almost half of the holdings in China ETFs. Tencent and Alibaba are the two largest holdings across the selection of ETFs, although these companies are not held by all ETFs.
- May 2019 saw massive outflows from China ETFs, with over \$1.5 billion flowing out of a selection of just 10 ETFs (this represented approximately 8% of the total market cap at the beginning of the month).

## 2. Equity Capital Markets Structure

### 2.1. Overview

While some aspects of China's industry have rapidly developed and are at the cutting edge of technology, its capital markets are less mature. Access to China by foreigners is still limited although has notably improved over the past several years. In China's state-backed capitalism model, the influence of State-Owned Enterprises (SOEs) is important to consider, with different ETFs offering different levels of exposure to SOEs (because some SOEs have listed publicly traded equity).

Criticism has been levied at SOEs and how they may have unfair advantages due to their ownership and close ties with government – making local and foreign competition even more difficult. In addition, concerns have been raised by some Chinese businessmen of a potential re-dominance by SOEs should private enterprise, as they claim, be less favoured under President Xi Jinping's rule. The phrase *guo jin min tui*, meaning *the state advances as the private sector retreats*, has been used to describe this. A 2018 article (which was calling for private companies to fade away<sup>5</sup>) by Wu Xiaoping, while likely overzealous, caused much debate of the role of private enterprise in the economy going forward. Regardless of this, the importance of both private enterprise (listed and unlisted) and SOEs is going to be vital as the Chinese economy continues to develop.

While not specifically addressed as part of this equity analysis one should be aware of a tightly controlled onshore Chinese Yuan (CNY) and the more freely traded offshore Yuan (CNH). Practically, this has little impact on many end investors who will likely not transact in either of these currencies (China-focussed ETFs trade in major currencies, such as the US Dollar). Foreign currency risk is however an important factor to consider as any depreciation of the Chinese Yuan may cause capital losses.

### 2.2. Share Classes and Indices

While definitions of share classes may vary in the market, the structure of equity capital markets can be described by the following table<sup>6</sup>:

Share Class	Company Incorporation	Exchange	Ccy	Market Cap and No. of Listings	Availability to International Investors
A-shares	Chinese securities incorporated in mainland China	Shanghai Stock Exchange (SSE) Shenzhen Stock Exchange (SZSE)	RMB	\$5.6 trillion (1,928 listings) plus \$2.0 trillion (1,694 listings) on the SME and ChiNext boards of SZSE	Available (with limitations) via Stock Connect, QFII or RQFII <sup>7</sup>
B-shares	Chinese securities incorporated in mainland China	SSE SZSE	USD HKD	\$20.0 billion (97 listings)	All investors
H-shares	Chinese securities incorporated in mainland China	Hong Kong Stock Exchange (HKEX)	HKD	\$778.6 billion (272 listings)	All investors
P-chips	Chinese securities of non-government owned entities incorporated outside mainland China	HKEX	HKD	\$1.1 trillion (715 listings)	All investors
Red-chips	Chinese securities of state-owned entities incorporated outside mainland China	HKEX	HKD	\$689.0 billion (174 listings)	All investors
Overseas listed	China securities (including Depositary Receipts) listed on foreign exchanges outside of mainland China and Hong Kong (N-shares referring to those traded on New York stock exchanges; S-chips referring to those traded on the Singapore Stock Exchange)	Multiple	USD, SGD, etc	Various	All investors

Data as of May 2019 and December 2018 for P-chips. Sources: [https://www.hkex.com.hk/Market-Data/Statistics/Consolidated-Reports/China-Dimension?sc\\_lang=en&tabName=GEM](https://www.hkex.com.hk/Market-Data/Statistics/Consolidated-Reports/China-Dimension?sc_lang=en&tabName=GEM); <https://www.hkex.com.hk/-/media/HKEX-Market/Market-Data/Statistics/Consolidated-Reports/Annual-Market-Statistics/2018-market-statistics.pdf>; <http://english.sse.com.cn/indices/publications/monthly/c/4835752.pdf>; <http://www.szse.cn/English/siteMarketData/marketStatistics/securities/index.html>



A single company may be dual-listed (for example: Bank of China trades on the Shanghai Stock Exchange (SSE) under the identifier 601988.SS (as an A-share), and on the Hong Kong Stock Exchange (HKEX) under the identifier 3988.HK (as an H-share). Approximately 72% of its total available shares trade as A-Shares and 28% of its total available shares trade as H-Shares<sup>8</sup>. It is interesting to note that in this example, Bank of China is also a State-Owned Enterprise with approximately 64% of its shares being owned by the Central Huijin Investment Ltd (an investment vehicle for the People's Republic of China).

The classification of companies is also not static, as most recently indicated by Alibaba Group Holding Ltd filing for a secondary listing in Hong Kong. Alibaba raised \$25 billion in the US in the world's biggest initial public offering and features prominently in a number of China-focussed indices and in turn, ETFs. With a secondary listing in Hong Kong, Alibaba may also feature in ETFs that track indices that include Hong Kong equities.<sup>9</sup>

### How the major indices relate to the above share classifications:

*CSI300 Index* – consists of the 300 largest and most liquid A-shares traded on Shanghai Stock Exchange and Shenzhen Stock Exchange. A free-float ratio is also used to reduce the weight of companies with a lower proportion of free float shares.<sup>10</sup>

*Hang Seng Index* – consists of 50 of the largest and most liquid stocks listed in Hong Kong, with adjustments made for free float and a 10% weighting limit for any single listing. Currently, 9 of the 50 companies in the Index (representing approximately 26% of the weight of the Index) are H-Shares.<sup>11</sup>

*ChiNext Market* – is a board of the Shenzhen Stock Exchange (in addition the Main Board and SME Board) that was created to help encourage entrepreneurship and can be compared to NASDAQ in the US with its high-tech focus. The 762 ChiNext stocks have a combined market cap of USD 722 billion and an average Price-Earnings (PE) ratio of 39.<sup>12</sup> This contrasts with the Main Board of the Shenzhen Stock Exchange which has 473 stocks at a combined market cap of USD 1 trillion and average PE ratio of 16.3.

Each of the *major index providers* have a suite of China focussed indices covering multiple combinations of shares classes, as evident by FTSE<sup>13</sup> and MSCI. Some key differences between the CSI 300 and the MSCI China A Inclusion Index are shown below (both indices are tracked by ETFs in this report).

Comparison	MSCI China A Inclusion Index	CSI 300 Index
<b>Index Construction Methodology</b>	MSCI China A Inclusion Index will be derived from the MSCI China Index at each Index Review by including only the China A shares component of the MSCI China Index.	Fixed 300 largest stocks, with adjustments for free float.
<b>Eligible Universe</b>	Only A-shares that can be traded through Stock Connect.	Any A-shares listed at Shanghai and Shenzhen Stock Exchanges.
<b>Foreign Ownership</b>	Foreign Ownership Limit (FOL) of 30% on all China A shares.	Does not consider any limits.
<b>Size Segmentation</b>	Follows MSCI's 3 step inclusion, which includes predominantly larger cap shares.	Fixed number of 300 of the largest shares.
<b>Index Review</b>	Semi-annual, quarterly and ongoing event-related reviews.	Semi-annual reviews.

Sources: [http://www.csindex.com.cn/uploads/indices/detail/files/en/145\\_000300\\_Index\\_Methodology\\_en.pdf](http://www.csindex.com.cn/uploads/indices/detail/files/en/145_000300_Index_Methodology_en.pdf)  
[https://www.msci.com/eqb/methodology/meth\\_docs/MSCI\\_GIMIMethodology\\_May2018.pdf](https://www.msci.com/eqb/methodology/meth_docs/MSCI_GIMIMethodology_May2018.pdf)  
<https://kraneshares.com/update-more-china-to-come-for-msci-investors/>



## 2.3. Stock Connect and ETF Connect

Stock Connect is a collaboration between the Hong Kong, Shanghai and Shenzhen Stock Exchanges which allows international and Mainland Chinese investors to trade securities in each other's markets through the trading and clearing facilities of their home exchange.<sup>14</sup> It was first launched in November 2014 and now covers over 2,000 eligible equities.

In addition, the Shanghai-London Stock Connect (SLSC) will allow LSE listed corporates to issue China Depositary Receipts (CDRs) to be listed on the Shanghai Stock Exchange (SSE). SSE listed corporates will be allowed to issue Global Depositary Receipts (GDRs) to be listed on the LSE. Brokerage firm *Huatai Securities* has announced its intention to become the first Chinese company to list in London using this new SLSC mechanism.

Even as China continues to open its financial markets, the establishment of an ETF Connect program has been hampered by delays. Some very limited progress has been made through the establishment of Japan-China ETF Connectivity - in this scheme, a Japanese or Chinese ETF provider may develop a feeder ETF that mainly invests in the counterparty's ETF<sup>15</sup>. For example, local Japanese investors may purchase a feeder-ETF on the Tokyo Stock Exchange. This feeder ETF in turn owns units in a Shanghai-listed ETF, which in turn owns Chinese equities. Far from open capital markets, but a step in the right direction.

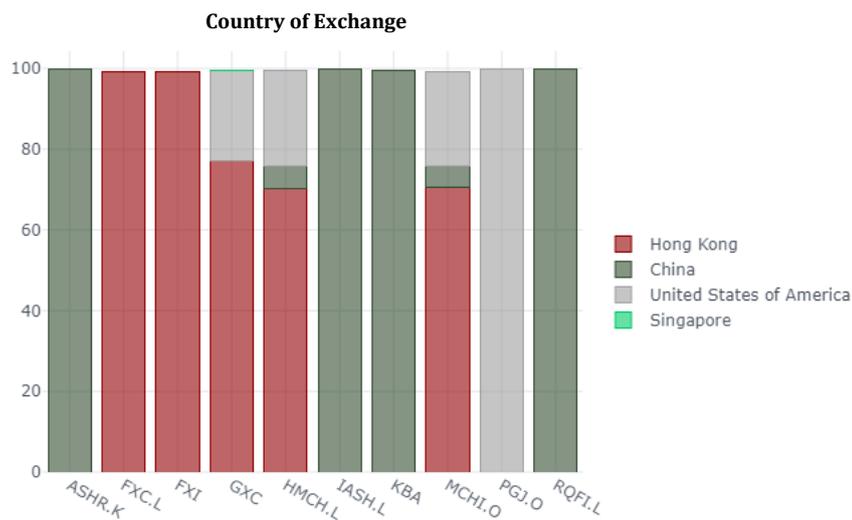


### 3. China's ETF Landscape

Below we detail **10 of the largest US and European domiciled ETFs** out of the broad universe of physically backed equity ETFs with single-country exposure to China. There are many other, more innovative ways to obtain exposure to Chinese markets such as the First Trust Chindia ETF (an ETF with exposure to both China and India) or the Direxion Daily CSI China Internet Index Bull 2X Shares (aiming to return 200% of the performance of a basket of Chinese internet stocks – probably worth keeping on the radar for during a crisis when long positions can be built!).

RIC	Name	Total Expense Ratio	Benchmark Name	Trading Currency	Domicile	Income Distribution Type	Dividend Yield	Market Cap
ASHR.K	Xtrackers Hvst CSI 300 China A-Shs ETF	0.66%	CSI 300 Index	USD	USA	Paid	1.08%	1,401
FXC.L	iShares China Large Cap UCITS ETF USD	0.74%	FTSE China 50 Index	GBP	Ireland	Paid	2.73%	639
FXI	iShares China Large-Cap ETF	0.74%	FTSE China 50 Index	USD	USA	Paid	2.58%	5,263
GXC	SPDR S&P China ETF	0.59%	S&P China BMI Index	USD	USA	Paid	1.89%	1,197
HMCH.L	HSBC MSCI CHINA UCITS ETF	0.60%	MSCI China Index	GBP	Ireland	Paid	1.48%	565
IASH.L	iShares MSCI China A UCITS ETF USD	0.40%	MSCI China A Inclusion Index	GBP	Ireland	Retained	n/a	574
KBA	KraneShares Boser MSCI China A Share ETF	0.60%	MSCI China A Inclusion Index	USD	USA	Paid	1.76%	656
MCHI.O	iShares MSCI China ETF	0.59%	MSCI China Index	USD	USA	Paid	1.49%	4,116
PGJ.O	Invesco Golden Dragon China ETF	0.70%	NASDAQ Golden Dragon China Index	USD	USA	Paid	0.28%	213
RQFL.L	Xtrackers Harvest CSI300 UCITS ETF	0.65%	CSI 300 Index	GBP	Luxembourg	Paid	0.81%	403

In line with the index that each ETF tracks, the country of exchange of each of the underlying companies varies considerably as can be seen in the chart below.



While not included in this analysis, there are two other prominent European-domiciled ETFs that are synthetic based (the Xtrackers MSCI China UCITS ETF and Lyxor China Enterprise (HSCEI) UCITS ETF). By their nature, synthetic ETFs require additional specific considerations to appropriately assess their risk.

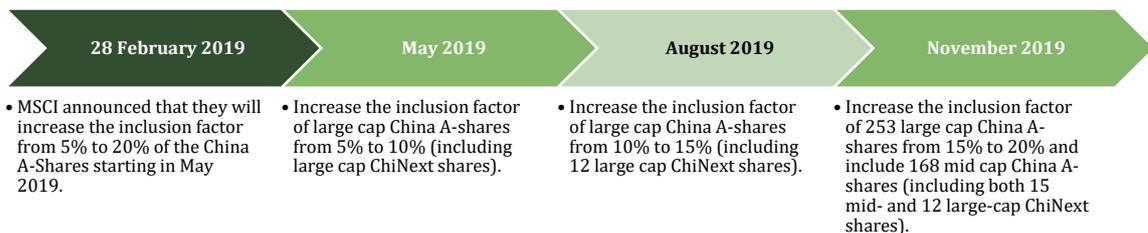
A further selection of ETFs that have not been included in this analysis are those ETFs that are domiciled in mainland China or Hong Kong. This includes the China AMC China 50 ETF, the largest China-focussed ETF in the world, with total assets of approximately USD 7.3 billion. The market for China-focussed ETFs is largest in Asia, with 20 China-focussed ETFs, each having assets of more than USD 1 billion, compared with just six such ETFs domiciled in the US and Europe. For investors with access to Shanghai, Shenzhen and Hong Kong Exchanges, this segment of the ETF market should not be ignored.

## 4. Key Index Considerations

### 4.1. ETFs Indices

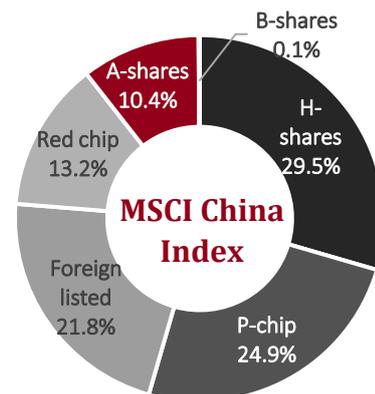
With the recent focus on the weight of China in global benchmarks by index providers, such as MSCI, it is important to understand how that impacts exposure to China going forward. This recent focus is by no means unusual or unexpected, but it is significant. **With USD1.8 trillion<sup>16</sup> tracking just the MSCI Emerging Markets indices, large flows into Chinese equities (and therefore out of other countries) will occur.**

### 4.2. MSCI's Three Step Inclusion Process



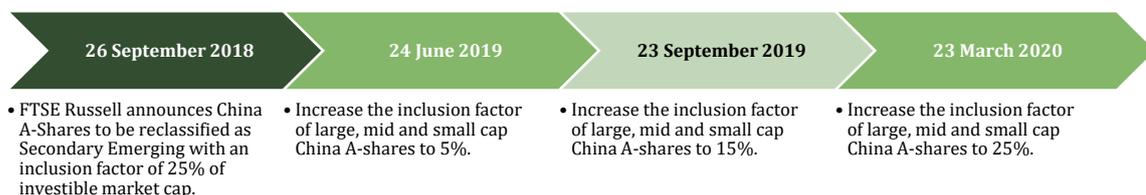
On completion of the 3-step process, China A-shares will have an estimated weight<sup>17</sup> of:

- 10.4% in the MSCI China Index (the balance of MSCI China Index is made up of H shares, B shares, Red chips, P chips and foreign listings);
- 4.0% in the MSCI AC Asia ex Japan Index;
- 3.3% in the MSCI EM Index; and
- 0.4% in the MSCI ACWI Index.



### 4.3. FTSE Russell's Three Tranche Approach

MSCI are not alone in increasing the weight of China in their global benchmarks. FTSE Russell announced that in phase 1, they would include China A-Shares with an inclusion factor of 25% of the investible market capitalization.



On completion of FTSE Russell's implementation of phase 1, China A-shares will have an estimated weight of:

- 6.2% FTSE Emerging All Cap Index; and
- 0.7% FTSE All World Index.

## 4.4. Market Concerns

Some of the more important concerns raised regarding the quantum of inclusions to date and the potential for a greater inclusion of Chinese A-shares are discussed below. While these points may not directly impact end investors of ETFs (a key benefit of using such structures) in typical market conditions, they should be understood.

### *Access to hedging and derivatives*

- The lack of a deep and liquid futures market, or other derivatives, impacts investors' ability to manage risk and reduce costs to end investors. For market makers to effectively provide liquidity at tight bid-offer spreads, it is important for the market makers to ensure that they can sufficiently hedge their positions.

### *Short settlement cycle of China A-shares*

- The short settlement cycle (T+0 for the securities leg and T+1 for the cash leg<sup>18</sup>) of China A-shares presents operational risk. Typical European and American working hours do not overlap and by not settling on the more globally standard T + 2, there is very little opportunity, if any, to resolve discrepancies.

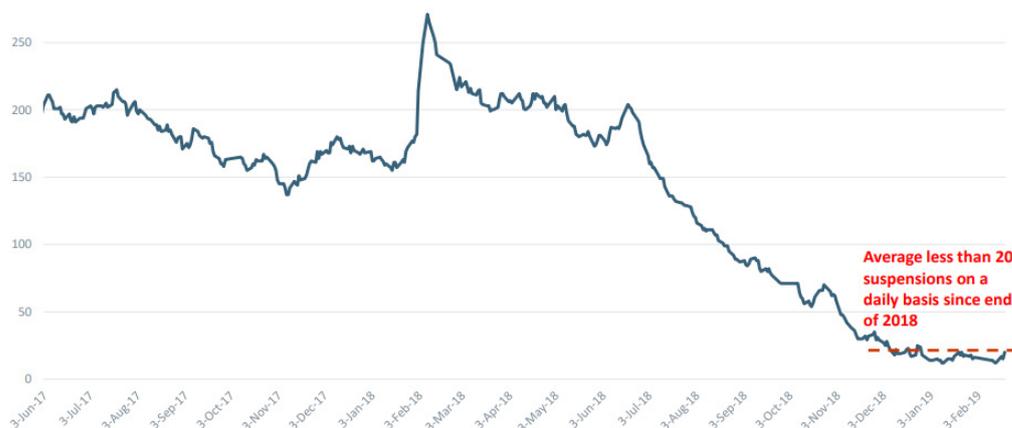
### *Trading holidays of Stock Connect*

- The misalignment of trading holidays between Shanghai, Shenzhen and Hong Kong Exchanges and Northbound and Southbound trading on Stock Connect creates additional operational and investment limitations.<sup>19</sup>

### *Stock suspensions:*

- Historically, the number of trading suspensions of China A-shares has been high. This trend has however been steadily decreasing from its peak in 2015. There has been increased pressure for companies not to arbitrarily suspend their own stock (which used to be a frequent occurrence ahead of a company receiving bad news that would cause a stock price to drop). The length of stock suspensions has also shortened.<sup>20</sup>

Trading Suspensions Since June 2017



Based on the full China A shares universe of over 3,000 securities

Source:

[https://www.msci.com/documents/1296102/12275477/China\\_A\\_Further\\_Weight\\_Increase\\_Feb\\_2019\\_Presentation.pdf/e9cf153a-2e4f-a110-2699-9d8163e917c2](https://www.msci.com/documents/1296102/12275477/China_A_Further_Weight_Increase_Feb_2019_Presentation.pdf/e9cf153a-2e4f-a110-2699-9d8163e917c2)

Other concerns such as those around quota limits relating to foreign ownership and the availability of Omnibus trading mechanisms to help demonstrate best execution in Stock Connect have less direct impact on end investors.



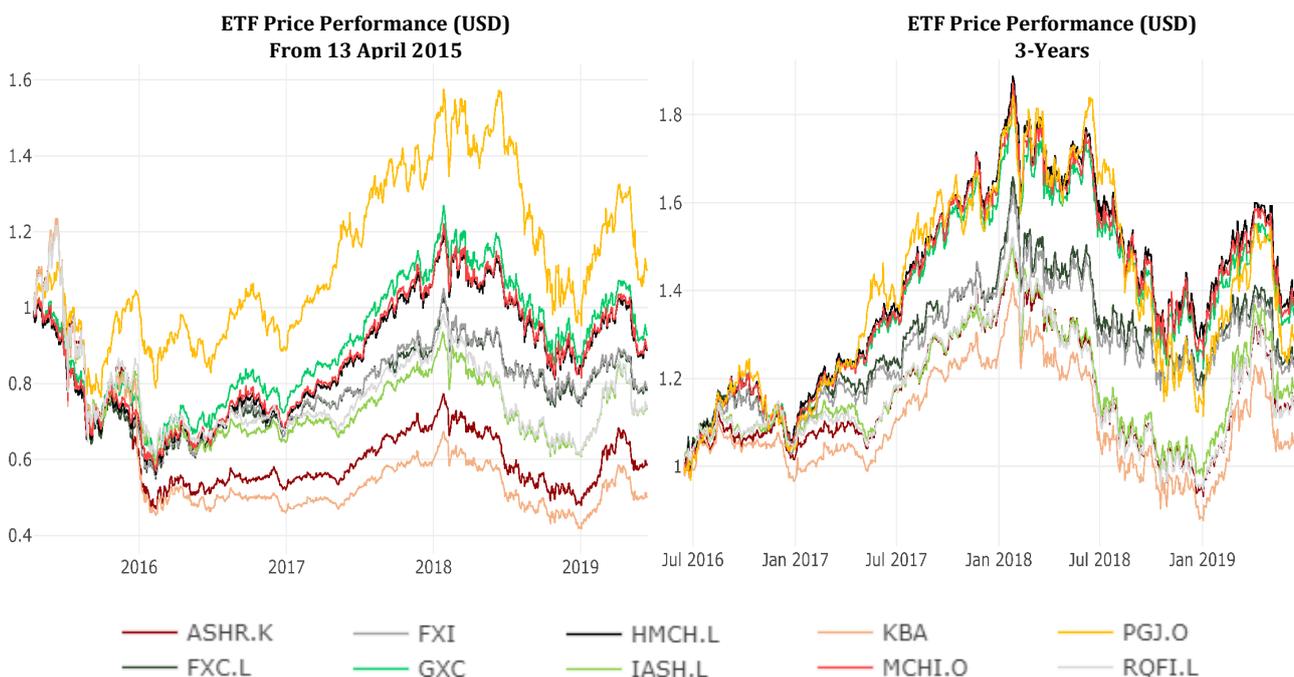
A more cynical standpoint, which should be considered (and indeed, US Senator Marco Rubio has written to the CEO of MSCI regarding this point), is that one could question why MSCI (an American company with currently little business presence in China) would increase the allocation of capital to onshore Chinese entities (perhaps they have growth ambitions of their own). **Our view is that that as China opens up its capital markets and becomes more relevant in globally invested portfolios it is right that MSCI move away from their US centricity and include more China exposure. It is also at the core of why we think, for equities, that MSCI Market Cap weights are not the best representation of global equity allocations and we shift more towards Asia Pacific.**

## 5. ETF Analysis

### 5.1. Historic Returns

The performance charts and correlation matrix have been based on daily price returns in US Dollars over a period up to 5 years. IASH was only launched in April 2015 and as such the left chart below has been rebased to 1 on 13 April 2015 which shows that only PGJ made a positive return over the period (PGJ consists of only US-listed shares). The right chart has also been rebased to 1, as of three years ago, and shows a vastly more positive picture with all ETFs showing a positive price performance in USD (excluding the benefit of dividends which further improves the returns). Past performance is not a reliable indicator of future returns...but can be pleasing or painful to look at depending on your positioning.

**The divergence of return between the ETFs is notable and is further illustrated in some of the relatively low correlation of returns shown further below.**



### CORRELATION OF RETURNS

	ASHR.K	FXC.L	FXI	GXC	HMCH.L	IASH.L	KBA	MCHLO	PGJ.O	RQFLL
ASHR.K	100%	51%	53%	56%	52%	81%	84%	55%	34%	83%
FXC.L	51%	100%	95%	90%	95%	61%	53%	91%	43%	59%
FXI	53%	95%	100%	94%	92%	59%	57%	95%	45%	60%
GXC	56%	90%	94%	100%	95%	61%	59%	99%	66%	62%
HMCH.L	52%	95%	92%	95%	100%	62%	54%	96%	59%	60%
IASH.L	81%	61%	59%	61%	62%	100%	84%	60%	38%	92%
KBA	84%	53%	57%	59%	54%	84%	100%	58%	36%	87%
MCHLO	55%	91%	95%	99%	96%	60%	58%	100%	62%	61%
PGJ.O	34%	43%	45%	66%	59%	38%	36%	62%	100%	35%
RQFLL	83%	59%	60%	62%	60%	92%	87%	61%	35%	100%

Largest ETF drawdowns (peak to trough) over the past 1, 3 and 5 years have been significant and poor market timing could have resulted in over a 50% loss over the worst period over the last 5 years. Remaining invested (and not divesting after a drawdown) over the past 5 years would however have yielded far better results (with returns ranging from -2.8% to 45.7%) plus any dividend yield over the period.

RIC	Name	USD								
		Price Return			Volatility			Max Drawdown		
		1-Year	3-Year	5-Year	1-Year	3-Year	5-Year	1-Year	3-Year	5-Year
ASHR.K	Xtrackers Hvst CSI 300 China A-Shs ETF	-10.2%	14.3%	17.0%	30.1%	22.1%	34.1%	-26.9%	-38.3%	-61.8%
FXC.L	iShares China Large Cap UCITS ETF USD (Dist)	-14.2%	24.2%	6.4%	22.1%	20.0%	22.8%	-19.0%	-29.4%	-46.3%
FXI	iShares China Large-Cap ETF	-14.0%	22.7%	6.5%	22.0%	19.9%	22.8%	-19.1%	-29.5%	-46.0%
GXC	SPDR S&P China ETF	-21.0%	34.7%	19.4%	24.1%	20.2%	22.3%	-28.4%	-33.7%	-41.3%
HMCH.L	HSBC MSCI CHINA UCITS ETF	-20.0%	38.6%	19.6%	25.5%	21.3%	23.1%	-26.8%	-32.9%	-45.1%
IASH.L	iShares MSCI China A UCITS ETF USD (Acc)	-8.5%	17.7%	n/a	28.1%	21.4%	n/a	-24.2%	-35.3%	na
KBA	KraneShares Boser MSCI China A Share ETF	-12.8%	5.2%	-2.8%	28.1%	20.6%	32.9%	-27.5%	-38.3%	-66.3%
MCHLO	iShares MSCI China ETF	-20.5%	36.8%	18.5%	24.8%	20.9%	22.9%	-27.6%	-33.5%	-44.6%
PGJ.O	Invesco Golden Dragon China ETF	-30.1%	28.7%	19.4%	31.1%	24.2%	24.7%	-39.5%	-39.7%	-39.7%
RQFLL	Xtrackers Harvest CSI300 UCITS ETF	-9.7%	13.6%	45.7%	29.1%	21.5%	30.8%	-25.0%	-38.0%	-50.5%

RIC	Name	CNY								
		Price Return			Volatility			Max Drawdown		
		1-Year	3-Year	5-Year	1-Year	3-Year	5-Year	1-Year	3-Year	5-Year
ASHR.K	Xtrackers Hvst CSI 300 China A-Shs ETF	-2.8%	20.1%	30.1%	28.2%	21.0%	33.5%	-21.5%	-33.1%	-59.6%
FXC.L	iShares China Large Cap UCITS ETF USD (Dist)	-7.1%	30.4%	18.3%	20.3%	19.3%	22.3%	-12.9%	-23.1%	-43.3%
FXI	iShares China Large-Cap ETF	-6.9%	28.9%	18.5%	20.4%	19.1%	22.3%	-13.2%	-23.3%	-43.0%
GXC	SPDR S&P China ETF	-14.5%	41.5%	32.8%	22.5%	19.5%	21.7%	-23.1%	-27.9%	-38.0%
HMCH.L	HSBC MSCI CHINA UCITS ETF	-13.4%	45.6%	33.0%	23.7%	20.6%	22.6%	-21.0%	-26.7%	-42.0%
IASH.L	iShares MSCI China A UCITS ETF USD (Acc)	-1.0%	23.6%	n/a	26.1%	20.4%	n/a	-18.6%	-30.1%	na
KBA	KraneShares Boser MSCI China A Share ETF	-5.6%	10.5%	8.1%	26.2%	19.5%	32.3%	-22.1%	-32.9%	-62.7%
MCHLO	iShares MSCI China ETF	-14.0%	43.6%	31.8%	23.1%	20.1%	22.4%	-22.4%	-27.7%	-41.4%
PGJ.O	Invesco Golden Dragon China ETF	-24.3%	35.2%	32.9%	29.8%	23.6%	24.2%	-35.3%	-35.3%	-35.3%
RQFLL	Xtrackers Harvest CSI300 UCITS ETF	-2.3%	19.3%	62.1%	27.1%	20.5%	30.2%	-19.5%	-33.0%	-47.6%

Data for the period ending 14 June 2019. Daily closing prices and exchange rates used from Refinitiv. IASH had not yet listed 5-years ago and therefore has null values. The ASHR 5-year return appears much lower than the RQFI 5-year, yet both track the same index. The reason for this is an unusually large dividend of USD8.43 (23% at the time) being declared on 16 December 2015.

## 5.2. Holdings Analysis

### 5.2.1. Holdings Overlap

We consider the similarity of ETFs based on the overlap of their holdings by percentage weight and by the count of holdings and **what is abundantly clear is the significant differences in holdings between the various ETFs**. For example, the presence of Alibaba at 11.6% in GXC and 13.1% in HMCH will reflect as an overlap of 11.6% and a count of 1 in the respective matrices below.

OVERLAP OF HOLDINGS											OVERLAP OF HOLDINGS										
	ASHR.K	FXCL	FXI	GXC	HMCH.L	IASH.L	KBA	MCHLO	PGJ.O	RQFLL		ASHR.K	FXCL	FXI	GXC	HMCH.L	IASH.L	KBA	MCHLO	PGJ.O	RQFLL
ASHR.K	100%	0%	0%	0%	5%	80%	77%	5%	0%	96%	ASHR.K	321	1	1	1	230	231	265	156	0	321
FXCL	0%	100%	100%	47%	45%	0%	0%	46%	0%	0%	FXCL	1	54	53	50	52	1	1	52	0	1
FXI	0%	100%	100%	47%	45%	0%	0%	46%	0%	0%	FXI	1	53	54	50	52	1	1	53	0	1
GXC	0%	47%	47%	100%	86%	0%	0%	87%	17%	0%	GXC	1	50	50	368	215	1	1	215	39	1
HMCH.L	5%	45%	45%	86%	100%	5%	5%	98%	17%	5%	HMCH.L	230	52	52	215	503	266	266	393	22	231
IASH.L	80%	0%	0%	0%	5%	100%	84%	3%	0%	80%	IASH.L	231	1	1	1	266	270	267	162	0	232
KBA	77%	0%	0%	0%	5%	84%	100%	5%	0%	77%	KBA	265	1	1	1	266	267	439	161	0	266
MCHLO	5%	46%	46%	87%	98%	3%	5%	100%	17%	5%	MCHLO	156	52	53	215	393	162	161	398	22	156
PGJ.O	0%	0%	0%	17%	17%	0%	0%	17%	100%	0%	PGJ.O	0	0	0	39	22	0	0	22	65	0
RQFLL	96%	0%	0%	0%	5%	80%	77%	5%	0%	100%	RQFLL	321	1	1	1	231	232	266	156	0	322
											Count of Holdings	321	54	54	368	503	270	439	398	65	322

Out of the 10 ETFs, PGJ is unique in that it is the only ETF to track only US-listed equities.

The overlap between China A-shares Index-trackers (IASH and KBA) and CSI300 Index-trackers (which is a sub-set of China A-shares) (ASHR and RQFI) is approximately 80%. This overlap may decrease as additional securities (including ChiNext securities) are added to the China A-shares indices.

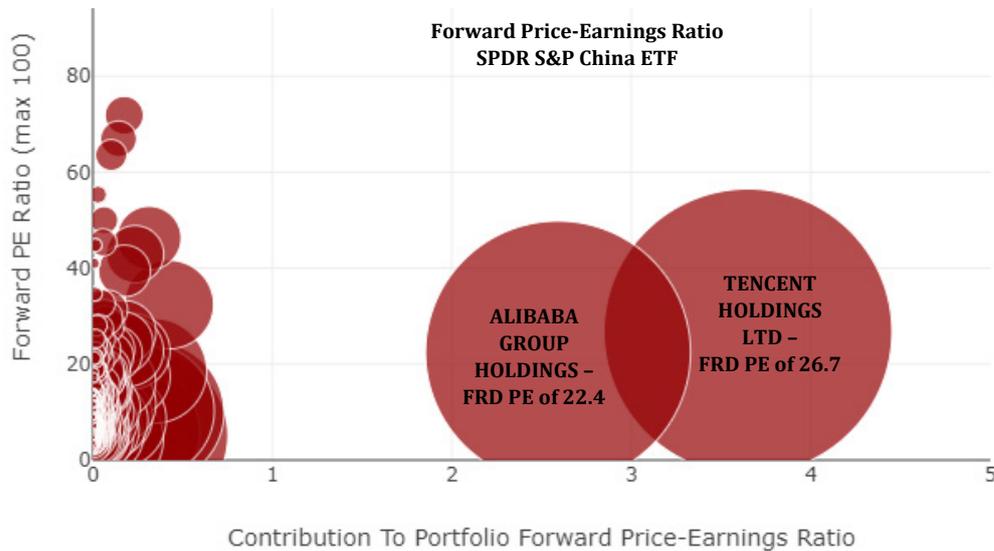
The broader China Index-trackers (HMCH and MCHI) show very little overlap with A-shares, as A-shares have traditionally been more difficult for foreign investors to access.

### 5.2.2. Valuation

RIC	Name	Number of Holdings	PE	Forward PE	ESG Score	SOE Percent
ASHR.K	Xtrackers Hvst CSI 300 China A-Shs ETF	321	22.63	17.07	46.05	17.11
FXCL	iShares China Large Cap UCITS ETF (Dist)	54	13.87	37.91	63.67	27.13
FXI	iShares China Large-Cap ETF	54	13.87	37.82	63.67	27.13
GXC	SPDR S&P China ETF	368	23.97	80.05	56.14	14.83
HMCH.L	HSBC MSCI CHINA UCITS ETF	503	25.10	35.79	55.41	15.20
IASH.L	iShares MSCI China A UCITS ETF USD (Acc)	270	23.89	17.56	45.01	21.31
KBA	KraneShares Boser MSCI China A Share ETF	439	25.52	18.53	45.07	17.96
MCHLO	iShares MSCI China ETF	398	25.14	36.12	55.46	15.12
PGJ.O	Invesco Golden Dragon China ETF	65	45.04	28.68	41.38	1.37
RQFLL	Xtrackers Harvest CSI300 UCITS ETF	322	22.10	16.94	46.05	17.09

Data derived and recalculated as of 12 June 2019 on holdings with available data. Source Refinitiv.

While the Forward Price Earnings (PE) ratio appears very high for the SPDR S&P China ETF, this is due to **three outlying data points** (not shown on the chart on the following page as they are too far off the chart!). **With these removed, the Forward PE ratio is a more reasonable 15.72**. For reference, the PE ratio of the S&P500 is 19.98. The following scatter chart shows how each underlying company (notably Alibaba and Tencent) contributes to the overall Forward PE ratio (excluding the three outliers) of the SPDR S&P China ETF.<sup>21</sup> When the large contributors like Alibaba and Tencent are excluded one could conclude that the stocks in the SPDR S&P China ETF trade at low multiples.



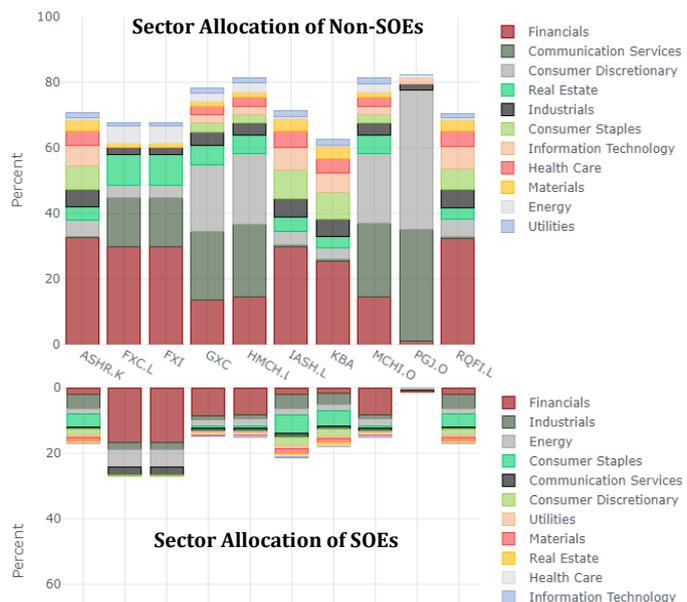
### 5.2.3. Sectors and SOEs

The difference that a choice of benchmark can make is clearly evident in the following charts. Importantly, from a sector perspective, these China ETFs are dominated by more cyclical sectors (Financials and Consumer Discretionary) while sectors such as Healthcare and Consumer Staples are comparatively smaller (and are also smaller in comparison to the S&P 500 and Stoxx 600 Europe indices).

Of the ten chosen ETFs, Financials is one of the largest sectors representing as much as 47% of FXC and FXI but as low as 3% for PGJ. The 47% includes two SOEs, China Construction Bank (8.6%) and Bank of China (4.3%). Ping An Insurance and the Industrial and Commercial Bank of China are the only non-SOEs with holdings of greater than 5% in the Financials sector.

Communication Services is the next highest represented sector. This sector replaced the old Telecommunications Sector and inherited some of the previously Tech focussed companies. Exposure to this sector varies from almost none to 44% in PGJ, with no SOEs in this space.

The ETFs that track China A-shares (ASHR, IASH, KBA and RQFI) are very similar in holdings and offer what can be described as a balanced sector allocation. They do, however, lack exposure to the Communication Services giants Tencent Holdings and China Mobile. PGJ, which only holds US-listed securities, has no exposure to Tencent Holdings (with its largest Communication Services holdings being NetEase and Baidu). The countries in which the underlying companies are listed are shown as a bar chart in the Appendix.



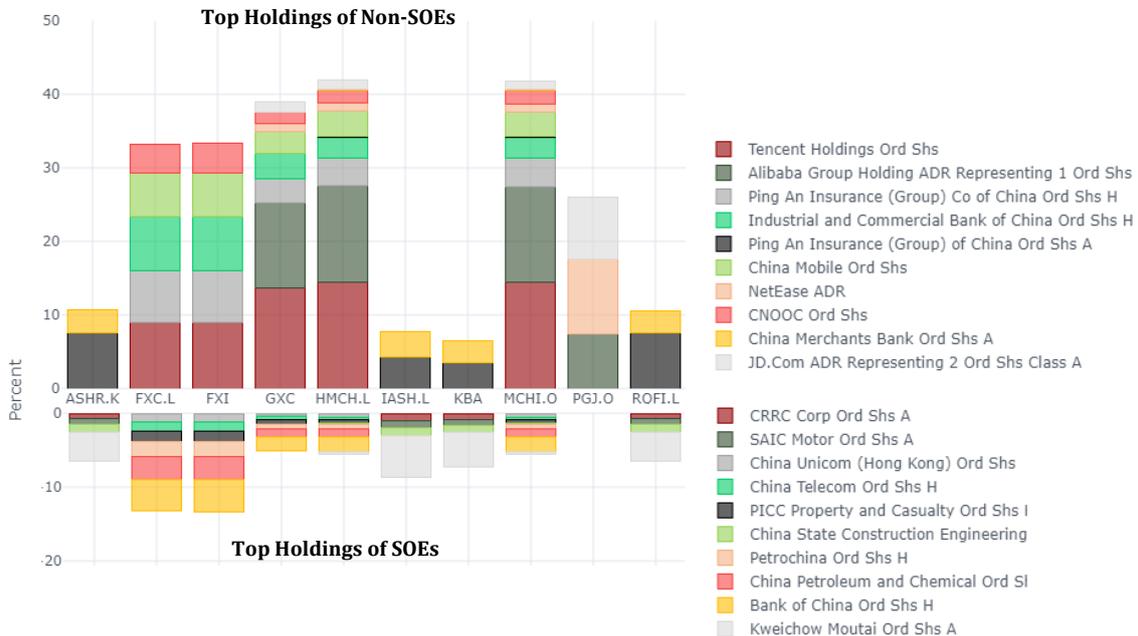
The much-publicised **Huawei Technologies Co.** is a private company and thus not part of any of the analysed ETFs.

### 5.2.4. Top Holdings and SOEs

Top holdings (of companies that are common to the ten ETFs) were compared across the ten ETFs. The below table however assesses how exposed each ETF is to their own top 10 holdings. There is some relationship between the number of holdings and the concentration of the ETFs but this breaks down when looking at GXC (SPDR S&P China ETF) and HMCH (HSBC MSCI CHINA UCITS ETF) where Tencent (Hong Kong-listed) and Alibaba (US-listed) alone account for approximately 27% of the ETF. The different locations of listing (driven by the nature of the various types of equity ‘shares’) has much to do with which companies are captured by each of the ETFs.

**The key point to note is that each ETF offers quite varied exposure both in terms of specific company risk and sector risk. It is not a straightforward exercise to just invest in any China ETF and assume you’re achieving the exposure you want.**

ETF	Total Number of Holdings	Weight of Top 10 Holdings
ASHR.K	321	26.4%
FXC.L	54	55.8%
FXI	54	55.8%
GXC	368	46.7%
HMCH.L	503	49.0%
IASH.L	270	24.3%
KBA	439	20.5%
MCHI.O	398	48.9%
PGJ.O	65	59.1%
RQFLL	322	26.0%



While there is some similarity of top holdings between the ETFs there remain large differences as shown above in the chart. It is important to understand some of larger holdings - for example, two of the largest holdings (Tencent Holdings and China Construction Bank) both generate 97% of their total revenue in China.

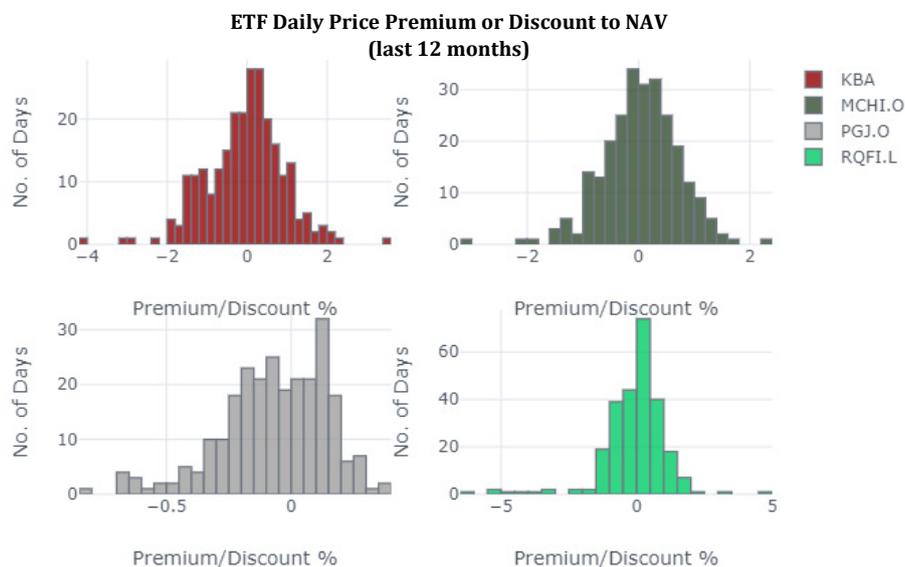
While not always consistently or adequately discussed it is important to understand the geographic split in revenue by some of the largest holdings. In fact, just 520 of the 900 different companies held across the ten ETFs reported their geographical revenue split.

## 6. Trading Considerations

### 6.1. Premium / Discount

ETFs, by their nature, do not necessarily trade at their Net Asset Value (NAV), thus best execution is important to limit both explicit and implicit costs of entering into and exiting a position. ETFs frequently trade at, or have a closing price that differs from, their closing NAV.

This is clearly shown for four of the ETFs, with PGJ trading at the tightest premium/discount to its NAV. As all underlying holdings in PGJ trade on the very liquid US-exchanges (and both the underlying securities and the ETF itself are in the same currency and time zone) this is in line with expectation. The calculation of NAV (and the timing of underlying prices and exchange rates) can distort what appears to be a premium / discount, and further consideration is required.



### 6.2. Bid-Offer Spread

Another factor to consider is the bid-offer spread. The below data compares the time-weighted basis point spread (1 basis point is 1/100<sup>th</sup> of a percentage point) between the best bid and offer prices for the 4 China ETFs that trade on the London Stock Exchange, with tighter spreads being most desirable. A single ETF may trade under multiple tickers and currencies, each with their own bid-offer spread. These ETFs may trade at tighter spreads when traded Over The Counter (OTC) or on different trading venues such as the Request For Quote (RFQ) platforms.

Ticker	ISIN	Name	Traded Currency	May 2019	April 2019	March 2019	February 2019
HMCH	IE00B44T3H88	HSBC MSCI China UCITS ETF	GBX	16.47	13.34	14.18	16.92
HMCD	IE00B44T3H88	HSBC MSCI China UCITS ETF	USD	17.59	15.45	15.21	18.23
FXC	IE00B02KXK85	iShares China Large Cap UCITS ETF	GBX	18.03	16.16	14.10	15.69
IDFX	IE00B02KXK85	iShares China Large Cap UCITS ETF	USD	20.68	18.80	18.15	19.44
IASH	IE00BQT3WG13	iShares MSCI China A UCITS ETF	GBX	37.05	36.81	34.98	42.36
CNYA	IE00BQT3WG13	iShares MSCI China A UCITS ETF	USD	29.01	28.15	27.26	32.80
RQFI	LU0875160326	Xtrackers Harvest CSI300 Index UCITS ETF (DR) - 1	GBX	34.96	28.48	30.49	28.21
ASHR	LU0875160326	Xtrackers Harvest CSI300 Index UCITS ETF (DR) - 1	USD	30.37	24.81	24.68	25.07

Source: London Stock Exchange

### 6.3. Trading hours

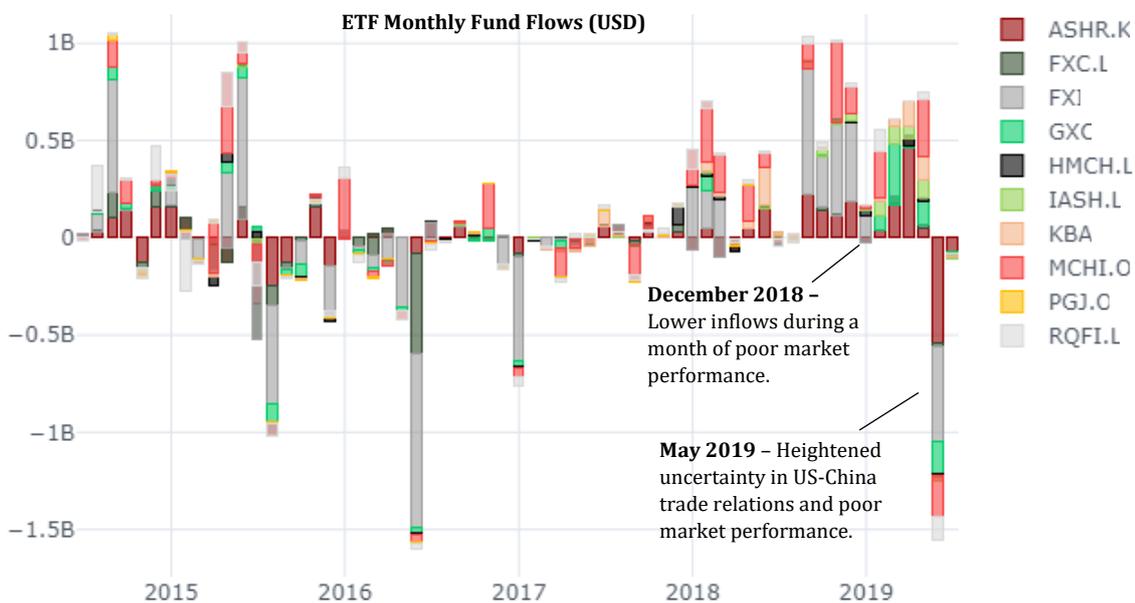
Underlying securities held by the ETFs typically trade in mainland China and Hong Kong, however stock markets in China are closed during typical US and European trading hours. This misalignment is frequent in ETFs and may work either positively or negatively for investors. Breaking news post market close in China can be reflected in prices of China ETFs traded in Europe and the US. Furthermore, ETFs may trade in the secondary market when the underlying primary market is closed, providing a possible invaluable source of additional liquidity at times. The ability to trade may also be impacted by many factors including pre-market, lunch or post-market hours, summer-time adjustments, stock exchange (and Stock Connect) holidays, trading suspensions and other factors.



The above map is not necessarily drawn to scale.<sup>22</sup>

### 6.4. ETF Flows

The flow of funds into and out of ETFs can provide some insight into either specific ETFs or a category of similar ETFs which might be attracting demand or becoming out of favour. Broad inflows into a category of ETFs may indicate strong historic or expected performance or investor interest in ETFs as a product. The selected China ETFs show exactly this with just two months with high levels of outflows in just 2 ETFs. Outflows in just one particular ETF may bode poorly for its particular outlook if the others remain stable or have positive flows.



Data derived from and calculated using Refinitiv data. The final month is a partial month to 12 June 2019.



## 6.5. Tax

As with many forms of investments, tax considerations are extremely important when considering which are the most appropriate ETFs. The cross-border nature of investments further complicates the decision. Whilst each persons' particular circumstances should be taken into consideration some key tax-related considerations are:

- Dividend withholding tax;
- Fund reporting status;
- Accumulation and distribution share classes;
- Capital versus income;
- Situs;
- Estate duty.

## 7. Conclusion

Chinese equity markets are quite unique in that there are different ways to obtain exposure (through varying share classes and listings). As a result, the indices which track Chinese equities differ considerably in terms of exposure, past performance and holdings. Their composition is an important factor for investors to consider when accessing the growth of the Chinese economy and the concomitant growth and development of China's capital markets.

Various important ETF-specific characteristics (such as bid-offer spreads and fund flows) have also been presented, which can similarly be applied to ETFs in other regions. We have shown some of the characteristics which we consider when evaluating ETFs as part of our investment process. Some additional charts to further understand the ETFs' holdings have been included in Appendix A.

A thorough assessment should be undertaken when making any investment and this report does not seek to provide any such advice as to the most appropriate investment for one's personal circumstances.

We welcome a discussion on any of these topics. We hope you found this topic interesting.

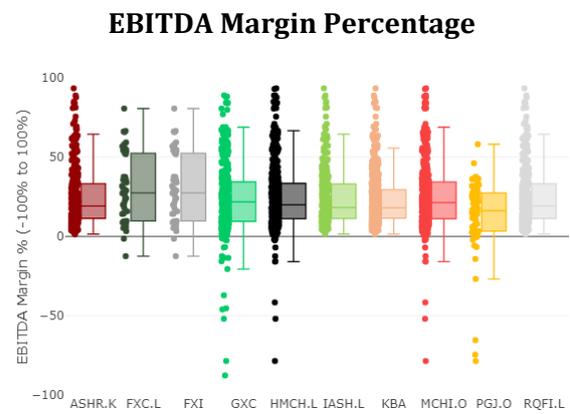
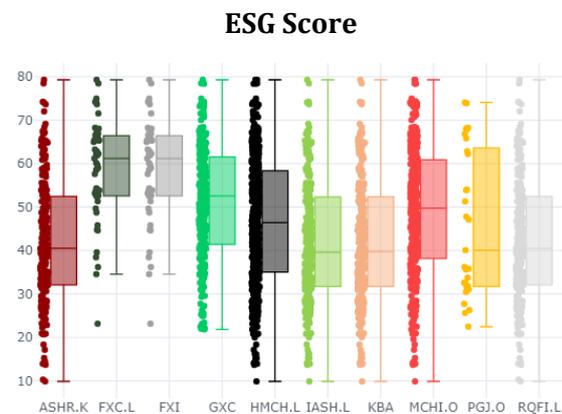
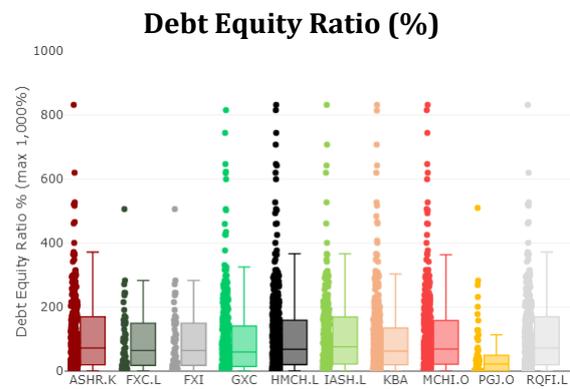
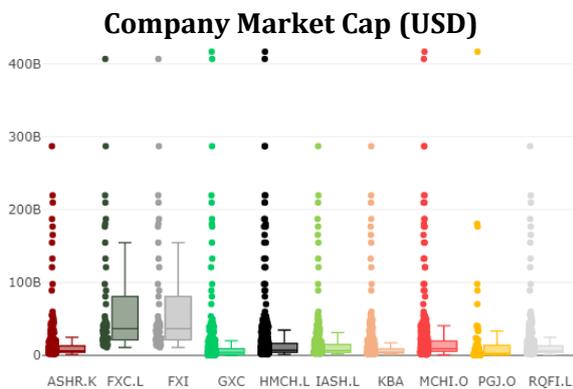
# Appendix A – Additional Charts

<b>ASHR.K</b>	Xtrackers Hvst CSI 300 China A-Shs ETF	<b>IASH.L</b>	iShares MSCI China A UCITS ETF USD
<b>FXC.L</b>	iShares China Large Cap UCITS ETF USD	<b>KBA</b>	KraneShares Boser MSCI China A Share ETF
<b>FXI</b>	iShares China Large-Cap ETF	<b>MCHI.O</b>	iShares MSCI China ETF
<b>GXC</b>	SPDR S&P China ETF	<b>PGJ.O</b>	Invesco Golden Dragon China ETF
<b>HMCH.L</b>	HSBC MSCI CHINA UCITS ETF	<b>RQFL.L</b>	Xtrackers Harvest CSI300 UCITS ETF

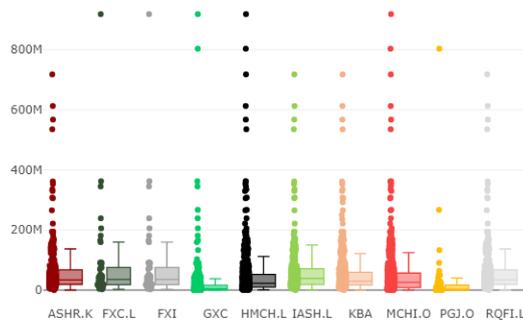
In the box plots, each dot represents a single company in each ETF



75<sup>th</sup> percentile  
Median  
25<sup>th</sup> percentile



### Daily Average Value Traded Over 30 Days (USD)





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### Data:

*Data is sourced from Refinitiv, 2019 unless otherwise specified.*

*The dividend yield on ASHR.K was calculated based on the product provider's website on 13 June 2019 (0.28899 / 26.795).*

*ETF Holdings and supplementary data were sourced from Refinitiv and were analysed. ETF Holdings data were as of a month-end 30 May 2019, with the exception of RQFI.L being on 30 April 2019 ETF Holdings data for ASHR.K and PGJ.O were sourced from the product providers website as of 12 June 2019.*

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*NB. The Time Weighted Spread (TWS) is applied to the BBO of each security, taking the spread and time weighted element for which that spread is applicable and then aggregating for the Continuous Trading Period (excluding call auctions at the beginning and end of the period). It is calculated using best price messages and omits OTC trading. Please note that where the Time Weighted Spread is 'n/a' this indicates that the security is only OTC tradable. All trade and turnover figures shown here are a sum of order book, off book and OTC business."*

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<sup>1</sup> FT – "China's economy grows at slowest annual rate since 1990", 21 January 2019, <https://www.ft.com/content/9706b890-1ad7-11e9-9e64-d150b3105d21>

<sup>2</sup> United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, custom data acquired via website.

<sup>3</sup> World Economic Forum – "8 things you need to know about China's economy", accessed 18 June 2019, <https://www.weforum.org/agenda/2016/06/8-facts-about-chinas-economy/>

<sup>4</sup> United Nations – "The World's Cities in 2018", accessed 19 June 2019, [https://www.un.org/en/events/citiesday/assets/pdf/the\\_worlds\\_cities\\_in\\_2018\\_data\\_booklet.pdf](https://www.un.org/en/events/citiesday/assets/pdf/the_worlds_cities_in_2018_data_booklet.pdf)

- <sup>5</sup> The Economist – “A Chinese writer calls for private companies to fade away”, 6 October 2018, <https://www.economist.com/china/2018/10/06/a-chinese-writer-calls-for-private-companies-to-fade-away>
- <sup>6</sup> FTSE Russell – “Guide to Chinese Share Classes”, accessed 16 June 2019, [https://www.ftse.com/products/downloads/Guide to Chinese Share Classes.pdf](https://www.ftse.com/products/downloads/Guide%20to%20Chinese%20Share%20Classes.pdf)
- <sup>7</sup> SSE – “Comparing Stock Connect with QFII/RQFII”, accessed 21 June 2019, <http://english.sse.com.cn/investors/shhkconnect/introduction/comparing/>
- <sup>8</sup> Bank of China – Corporate Information, accessed 16 June 2019, [http://www.boc.cn/en/investor/ir4/201501/t20150114\\_4462767.html](http://www.boc.cn/en/investor/ir4/201501/t20150114_4462767.html)
- <sup>9</sup> FT – “Alibaba looks to raise billions in Hong Kong listing”, 28 May 2019, <https://www.ft.com/content/cde867b2-80e6-11e9-b592-5fe435b57a3b>
- <sup>10</sup> China Securities Index – “CSI300 Index Methodology”, accessed 16 June 2019, [http://www.csindex.com.cn/uploads/indices/detail/files/en/145\\_000300\\_Index\\_Methodology\\_en.pdf](http://www.csindex.com.cn/uploads/indices/detail/files/en/145_000300_Index_Methodology_en.pdf)
- <sup>11</sup> Hang Seng Indexes – “Hang Seng Index Factsheet”, accessed 16 June 2019, [https://www.hsi.com.hk/static/uploads/contents/en/dl\\_centre/factsheets/hsie.pdf](https://www.hsi.com.hk/static/uploads/contents/en/dl_centre/factsheets/hsie.pdf)
- <sup>12</sup> Shenzhen Stock Exchange – “About ChiNext”, accessed 16 June 2019, <http://www.szse.cn/English/products/equity/ChiNext/index.html>
- <sup>13</sup> FTSE Russell – “FTSE China Indices”, accessed 16 June 2019, [http://www.ftse.com/products/downloads/about\\_ftse\\_china\\_indices.pdf?\\_ga=2.209387858.1961220114.1560372126-999029252.1560372126](http://www.ftse.com/products/downloads/about_ftse_china_indices.pdf?_ga=2.209387858.1961220114.1560372126-999029252.1560372126), and MSCI – “Making China simple again”, accessed 16 June 2019, <https://www.msci.com/china>.
- <sup>14</sup> Hong Kong Stock Exchange – “What is Stock Connect”, accessed 16 June 2019, [https://www.hkex.com.hk/Mutual-Market/Stock-Connect?sc\\_lang=en](https://www.hkex.com.hk/Mutual-Market/Stock-Connect?sc_lang=en)
- <sup>15</sup> Tokyo Stock Exchange – “Outline of Japan-China ETF Connectivity”, accessed 16 June 2019, <https://www.jpix.co.jp/english/corporate/news/news-releases/0060/b5b4pj000002sy9v-att/outline01.pdf>
- <sup>16</sup> MSCI – “Emerging Markets”, accessed 16 June 2019, <https://www.msci.com/documents/1296102/1362201/MSCI-MIS-EM-May-2018.pdf/b1b05adf-4bf3-9acc-404c-9865da3e9997>
- <sup>17</sup> MSCI – “Weight Increase of China A shares in MSCI Indexes”, February 2019, [https://www.msci.com/documents/1296102/12275477/China A Further Weight Increase QA Feb 2019.pdf/601ed226-477d-13e5-c6ea-6d9c12640641](https://www.msci.com/documents/1296102/12275477/China_A_Further_Weight_Increase_QA_Feb_2019.pdf/601ed226-477d-13e5-c6ea-6d9c12640641)
- <sup>18</sup> Shanghai Stock Exchange – “Clearing and Settlement of the Stock Connect”, accessed 16 June 2019, <http://english.sse.com.cn/investors/shhkconnect/clear/>
- <sup>19</sup> Hong Kong Stock Exchange – “Trading Calendar of Stock Connect”, accessed 16 June 2019, [https://www.hkex.com.hk/-/media/HKEX-Market/Mutual-Market/Stock-Connect/Reference-Materials/Trading-Hour,-Trading-and-Settlement-Calendar/2019-Calendar\\_pdf\\_e.pdf?la=en](https://www.hkex.com.hk/-/media/HKEX-Market/Mutual-Market/Stock-Connect/Reference-Materials/Trading-Hour,-Trading-and-Settlement-Calendar/2019-Calendar_pdf_e.pdf?la=en)
- <sup>20</sup> Yuan Talks – “China tightens restrictions on listed companies’ trading suspension”, 6 November 2018, <https://www.yuantalks.com/china-tightens-restrictions-of-listed-companies-trading-suspension/>, and SSRN – “The Suspension World of the China A-Shares Market”, 29 May 2018, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3193954](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3193954)
- <sup>21</sup> Data is not available for some positions (eg. cash and some securities), representing a total percentage across all 10 ETFs as follows: PE Ratio (3.17%), Forward PE (2.8%), ESG Score (10.1%),
- <sup>22</sup> HKEX - [https://www.hkex.com.hk/Services/Trading-hours-and-Severe-Weather-Arrangements/Trading-Hours/Securities-Market?sc\\_lang=en](https://www.hkex.com.hk/Services/Trading-hours-and-Severe-Weather-Arrangements/Trading-Hours/Securities-Market?sc_lang=en); SSE - <http://english.sse.com.cn/tradmembership/schedule/>; SZSE - <http://www.szse.cn/English/services/trading/tradOverview/index.html>; LSE - <https://www.worldtimezone.com/markets24.php>; NYSE - <https://www.stockmarketclock.com/exchanges/nyse>.