Guinness Atkinson

China & Hong Kong Fund

Managers' Update – March 2022

Summary Review & Outlook

Market

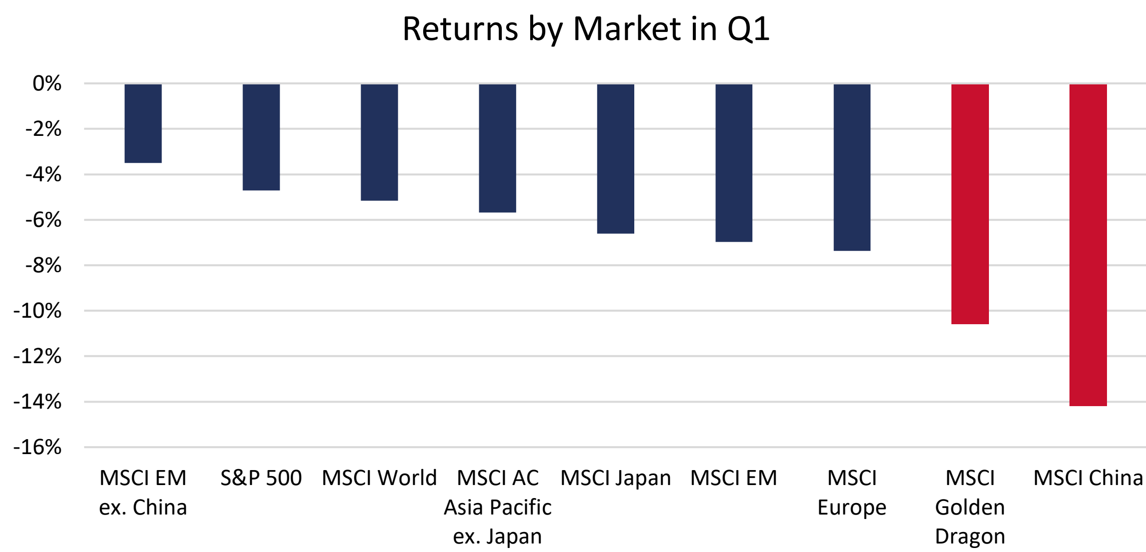
- In the first quarter, the MSCI China Net Total Return (NTR) Index fell 14.2% (in USD unless otherwise stated) and MSCI Hong Kong fell 1.8%. The CSI 300 Index, which covers the largest stocks in the onshore market, fell 14.3%.
- MSCI China Value fell 7.6% while MSCI China Growth fell 20.3%. The MSCI China A Onshore Value Index fell 11.0% while the MSCI China A Onshore Growth Index fell 19.2%.
- We sold three positions in the quarter – Galaxy Entertainment, China Resources Gas and another position which will be disclosed when complete.
- We bought three positions in the quarter – Shenzhou International, Shenzhen Inovance Technology and Hong Kong Exchanges & Clearing.

Macro Commentary

- Russia invaded Ukraine at the end of the month, leading to a sell-off in global markets and a rise in oil and gas prices.
- Covid cases reached nearly 28,000 (as of Apr-12) in China. Shanghai was locked down, though people in low-risk areas are now allowed some movement out of their houses. Outside of Shanghai, many areas have imposed restriction on movements of people, which adds further pressure to the economy.
- The NBS Purchasing Managers Index (PMI), which is more geared towards state-owned firms, fell from 50.2 in February to 49.5 in March, indicating contracting economic activity. The Caixin PMI, which is more geared towards private firms, fell even further from 50.4 in February to 48.1 in March. The Caixin services PMI fell to 42.0 which is understandable given the restrictions in movement across the country. We believe the economic weakness from the lockdowns makes it likelier the government loosens monetary and fiscal policy.
- Consumer price inflation (CPI) in China rose from 0.9% in February to 1.5% in March. Food inflation was -1.5% due to falling pork prices, while non-food CPI was +2.2%, driven by higher fuel costs. Core CPI, which excluded food and energy, was 1.1%. Producer price inflation (PPI) fell from 8.8% in February to 8.3% in March.
- Total social financing, the broadest measure of credit growth, grew 10.6% in March which was higher than expectations. There was an acceleration in credit extended to the corporate sector and an increase in long-term credit extended to the household sector.

Market Commentary

It has been a testing year for Chinese equities, with the MSCI China Index falling 14.2% (in USD) in the first quarter, but at its worst was down 29.9%. This made Chinese markets the weakest market compared to other major markets in the first quarter.



(Data from 12/31/21 to 03/31/22, returns in USD, source: Bloomberg, Guinness Atkinson calculations)

In January, expectations of rising interest rates in the US led to weakness for growth stocks globally and so Chinese growth stocks were weak. The People's Bank of China (PBOC) cut a set of interest rates by 0.1%. While these moves by the PBOC were encouraging in that they signaled a marginal loosening of monetary policy, we did not regard them as significant enough to stimulate economic growth.

In February, Chinese tech stocks were subject to more headwinds. Meituan, the food delivery service company, was told by the government to reduce its services charges, to help smaller and medium sized vendors on its platform. News reports indicated banks were being asked about their exposure to Ant Group, which is owned by Alibaba, and so led to weakness in Alibaba's share price. There were also news reports suggesting Tencent and other video game developers could be subject to more regulations over their new games' releases, as well as over their operations in the metaverse. (In some signs of easing, the regulator issued licenses for 45 new games in April after a 9-month hiatus.) Later in the month, Russia invaded Ukraine which led to further volatility in markets – please see our update published in March for our views of the effect of the invasion on China.

In March, Chinese markets fell by the most since the global financial crisis. The MSCI China Index fell 7.7% on 3/14 and a further 6.1% on 3/15. We believe this was due to several reasons, which all combined to create a sense of panic selling:

- Rising Covid cases in China, prompting a tougher government response in line with its zero-Covid strategy.
- The potential that China could be sanctioned by the US if it provided military support to Russia.
- Risk of China ADRs delisting in the US, in response to the Holding Foreign Companies Accountable Act (HFCAA).
- Weakening Chinese economy and lack of significant fiscal and monetary support.

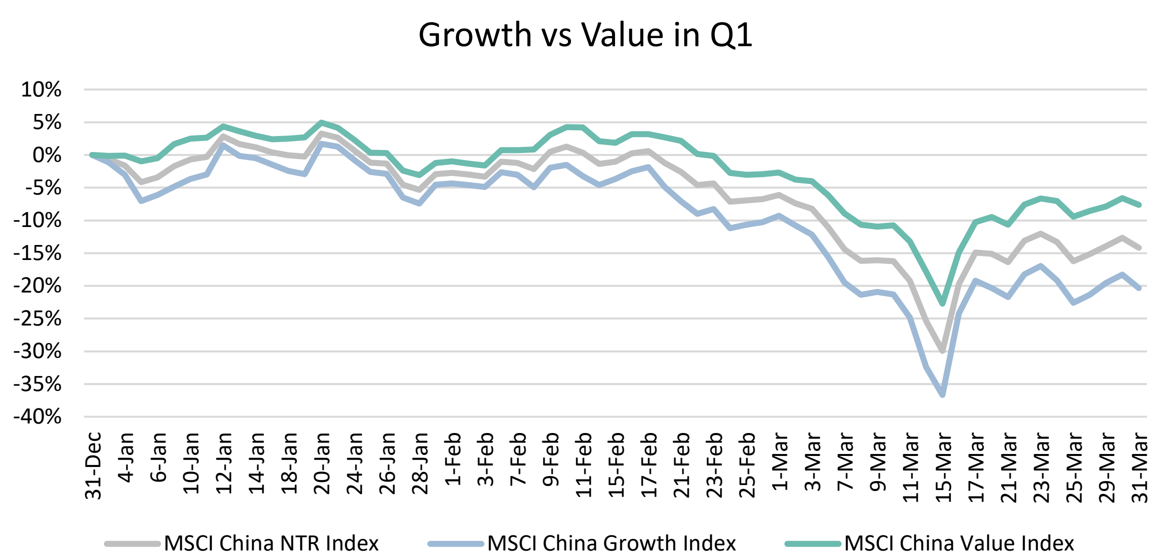
Very weak sentiment towards China tech stocks with talk of it being un-investable during the peak of the sell-off.

On 03/17, Vice Premier Liu He convened a meeting, chairing the Financial Stability Committee. The committee released a series of statements which markets reacted positively to:

- The committee recognised the need to loosen monetary policy in order to reach the GDP target of 5.5% growth for 2022.
- China aiming to cooperate with the US on accounting issues related to the ADRs.
- Regulation on tech to be completed as soon as possible.
- Government departments to coordinate regulations and policies to better consider the impact on the economy.

Chinese markets then rallied sharply on the news, increasing 14.5% on 3/18 and a further 6.0% on 3/19, before essentially being flat for the rest of the month.

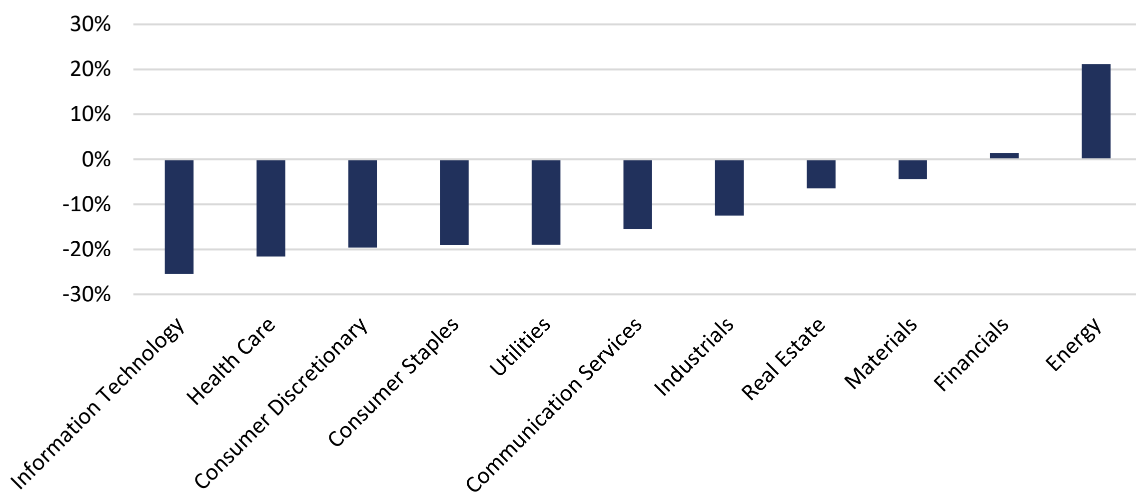
In the quarter, value stocks did better than growth, as the MSCI China Value Index fell 7.6% while the Growth Index fell by 20.3%.



(Data from 12/31/21 to 03/31/22, returns in USD, source: Bloomberg, Guinness Atkinson calculations)

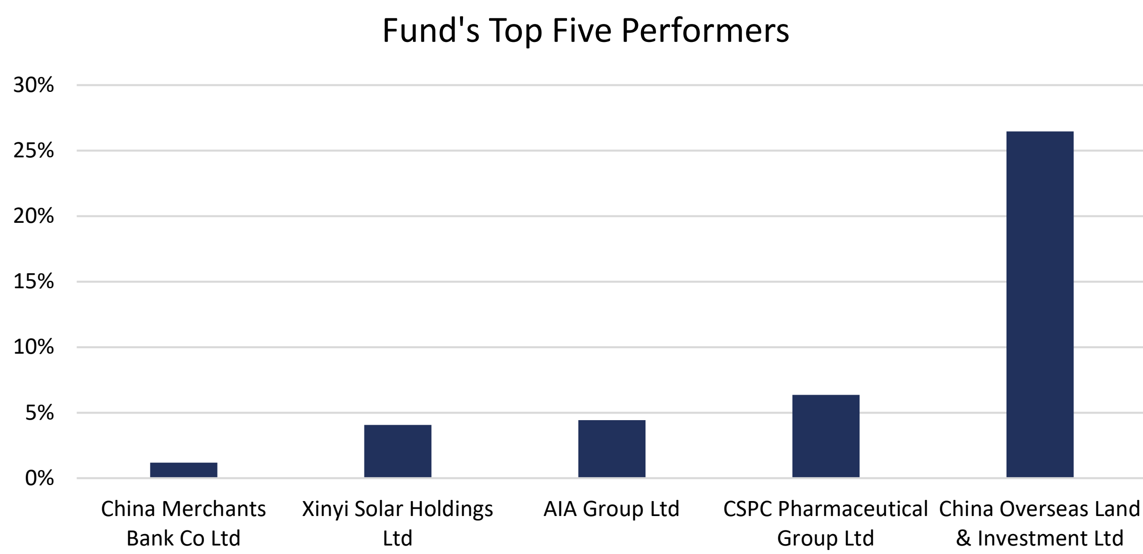
As oil, gas and coal prices rallied, Energy was by far the best performing sector in the quarter. Financials, which contain the Chinese state-owned banks, were also outperformers as investors turned to cheaper stocks in the quarter. Despite the negative sentiment, Real Estate was an outperformer as the market looks to easing measures which should stimulate the property market. The postponement of a long-discussed property tax also boosted sentiment. On the other hand, Information Technology, Healthcare, Consumer Discretionary, Consumer Staples and Utilities were laggards.

Returns by Sector for MSCI China in Q1



(Data from 12/31/21 to 03/31/22, returns in USD, source: Bloomberg, Guinness Atkinson calculations)

Stock Performance



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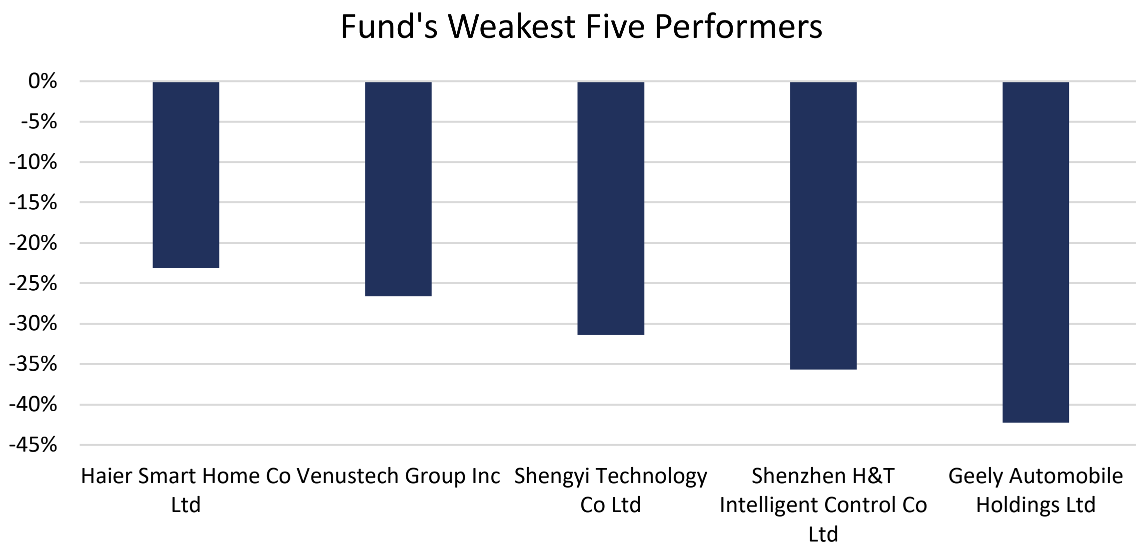
The Fund's best performing stock was China Overseas Land & Investment (COLI), which is a state-owned property developer. It is conservatively financed and in the second half of 2021, it took advantage of the weak property market to buy high quality land assets. In 2021, COLI increased its revenue by 30% but due to higher selling costs, gross profit only grew 2% and net profit fell 9%. The dividend increased 2% which we think is a sign of the company's relative strength in the current environment.

CSPC Pharmaceutical is a pharmaceutical company which in 2021 grew its revenue by 12% and its net income by 9%. One of its main products, NBP, which is used to treat strokes, saw significant price cuts in exchange for the volume of business from remaining on the national drug list. On the other hand, CSPC's oncology sales grew rapidly as the business builds new growth drivers. The company has a solid pipeline of products coming though, including a Covid mRNA vaccine.

AIA Group's results were ahead of expectations. Value of New Business (VONB) grew 18%, driven by higher margins in Hong Kong and Thailand. The total dividend for 2021 was increased by 8%. AIA additionally announced a buyback scheme worth $10bn over the next three years. Given we think the business is currently undervalued by the market, we think this buyback is a good idea.

Xinyi Solar is the world's largest manufacturer of solar glass which is used to make solar panels. As a result of Russia's invasion of Ukraine, European leaders are accelerating their shift away from gas and towards renewables. This added impetus should boost demand for Xinyi's products. In 2021, Xinyi Solar's revenue grew 30% and net income grew 8%. Volumes grew in 2021 but to due to lower solar glass prices and higher input costs, net income growth lagged revenue growth.

In 2021, China Merchants Bank reported pre-provisioning operating profit which grew 14% and net profit which grew 23%. The company disclosed that loans to developers account for 10% of total assets. 80% of projects are in tier 1 and 2 cities which we regard as higher quality assets than projects in tier 3 cities. We also highlight the bank has been conservative by assigning higher provisions on its credit exposure to developers.



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Geely was the weakest stock in the portfolio, reflecting the weakness in the broader auto industry. The industry has been struggling with chip shortages which Geely expects to ease in 2022. During this period of tight chip supply, automobile manufacturers have not been able to meet demand. Geely's results for 2021 missed expectations as though sales increased 10%, operating income fell 39% and net income fell 12%. Operating expenses were higher than expected which is likely due to the rollout of new electric vehicle EV brands as well as the build out of the direct sales channel. A minor positive point, however, was that Geely's gross margin increased 1.1 pp to 17.1% in an environment of higher input costs.

The A shares in the portfolio were generally weaker than their offshore counterparts, as growth stocks sold off more sharply in the mainland. H&T Intelligent makes controllers used in household appliances and power tools. H&T's controllers are used in well-known brands such as Whirlpool, Siemens and Bosch. It reported 2021 revenue growth of 28% and net profit growth of 40%. H&T is also aiming to expand into the automobile market where electronic control units, which are not too dissimilar from controllers, are becoming increasingly used. Revenue for this segment grew 66% in 2021 but remained a small part of the business, at 2.7% of total revenue.

Shengyi Technology makes copper clad laminates (CCLs) which are used in the production of printed circuit boards (PCBs). It benefits from multiple trends which point to greater demand for CCLs and PCBs: growing popularity of 5G compatible devices, growing demand for servers and cloud services, as well as localization towards Chinese suppliers in the domestic market. Shengyi is quickly moving up the value chain, supporting a gradual rise in margins over time. The business grew revenue by 38% and net profit by 68% in 2021.

Venustech is a provider of cybersecurity services in China. In 2021 revenue grew 20% and net profit grew 7%. Delays in government tenders in the fourth quarter meant revenue growth was lower than the target of 30%. Net profit growth lagged revenue growth due to the company's investments for future growth. Management remain optimistic on expanding the business over the long-term due to the increasing need for robust cyber defenses for corporate and government departments.

Portfolio Switches

In the quarter, we sold three positions and bought three positions.

Sells

We sold Galaxy Entertainment due to our belief rising Omicron cases would become harder to control, which we have seen in Shanghai. As travel restrictions have tightened across the country, it is likely the casinos in Macau will have another tough year.

We sold China Resources Gas which is a gas distributor. Gas prices have been generally increasing and following Russia's invasion of Ukraine, spiked up further. Though in theory gas distributors can pass on these higher costs, there is a possibility they are asked to conduct "national service". This could mean absorbing some of the higher costs, rather than passing them onto small and medium enterprises (SMEs) and residential customers. Given the weak economy, we felt there was a non-trivial probability of this occurring.

We are in the process of selling another position which will be disclosed when complete.

Buys

We bought Shenzhou International, a textile and apparel maker, after the stock sold off on a profit warning. Due to Covid-related suspension of production sites across Cambodia and Vietnam, costs increased and revenues fell in the second half of the year. We do not think these conditions are likely to last for the next three years. The risk reward ratio for the stock became much more attractive.

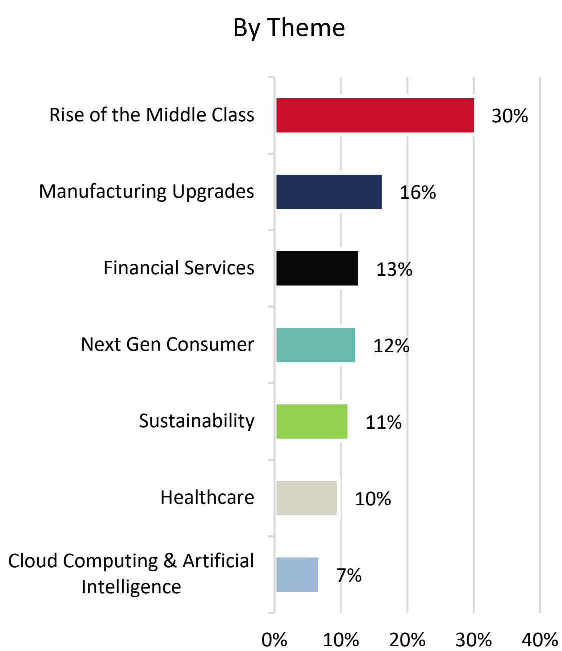
Following the sell-off in the middle of March, we bought Shenzhen Inovance Technology and Hong Kong Exchanges and Clearing. We felt that many quality stocks were selling off regardless of their fundamentals, and so were assessing the ideas on our watchlist. The two additions made had been expensive for a very long time but within a few days presented an acceptable upside for the amount of risk taken.

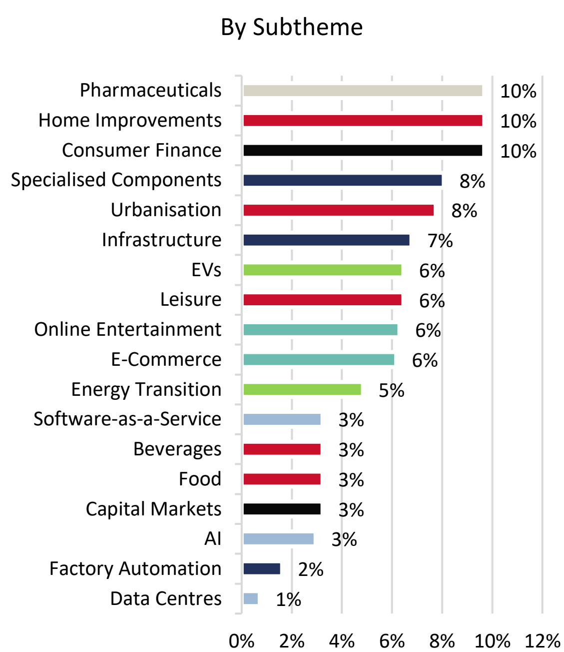
Inovance is a manufacturer of industrial automation equipment. It started off making inverters (frequency converters) for industrial equipment and elevators, before successfully expanding into servos (error-sensing devices) and automation equipment. Inovance is now one of the top five firms in the inverter and servo market in China, when measured by revenue. The business gives exposure to various traditional industrial markets as well as newer markets such as electric vehicles and solar panels. The business has a quickly growing EV controller business which may become profitable in 2022, and we expect this to become a further growth driver for the business.

Hong Kong Exchanges & Clearing is a high quality stock which is often expensive. As we are clearly bullish on the demand for Chinese stocks over time, we expect the exchange which facilitates the trade of Chinese stocks to also do well. The exchange benefits through the Stock Connect scheme which allows foreigners to buy domestic A shares.

Portfolio Positioning

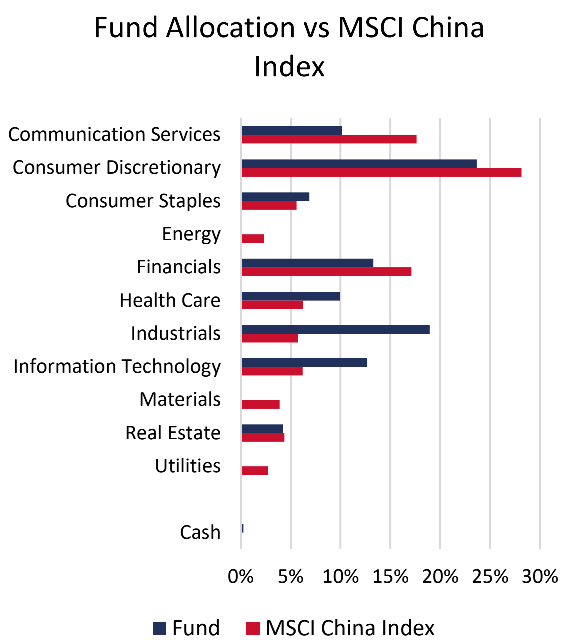
By theme, the Fund's largest exposures are to the Rise of the Middle Class, followed by Manufacturing Upgrades. Important subthemes include Pharmaceuticals, Home Improvements, Consumer Finance and Specialized Components.

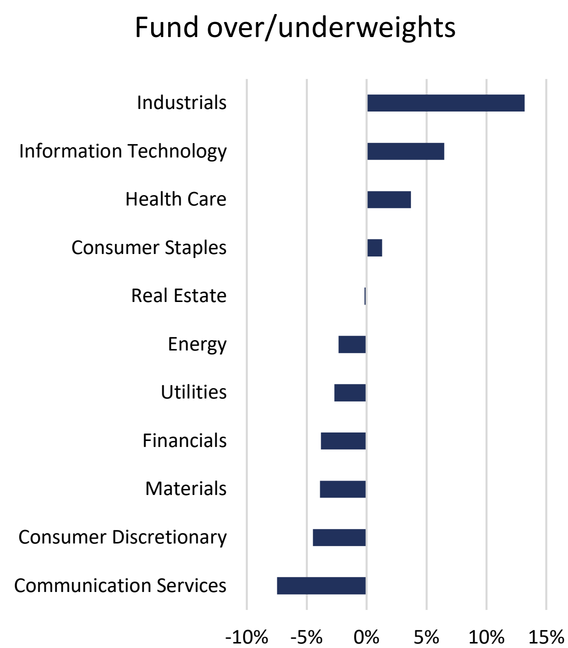




(Data as of 03/31/22, source: Guinness Atkinson calculations)

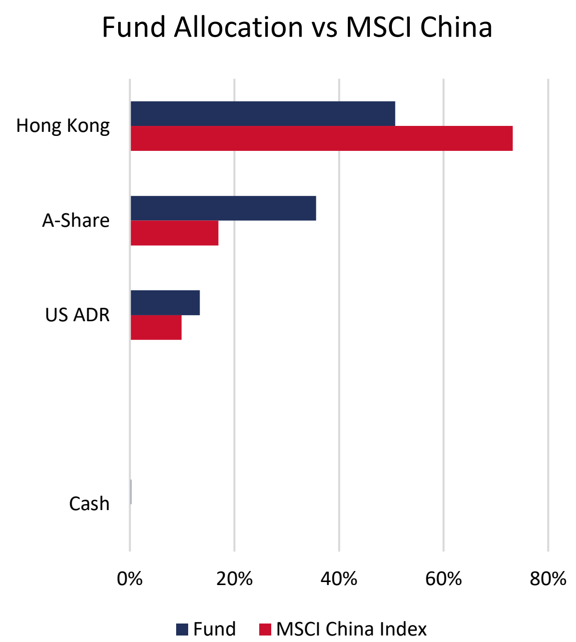
On a sector basis, the Fund's largest exposures are to Consumer Discretionary, Industrials, Financials and Information Technology. Relative to the MSCI China Index, the Fund is overweight in Industrials and Information Technology (IT) and underweight in Communication Services.

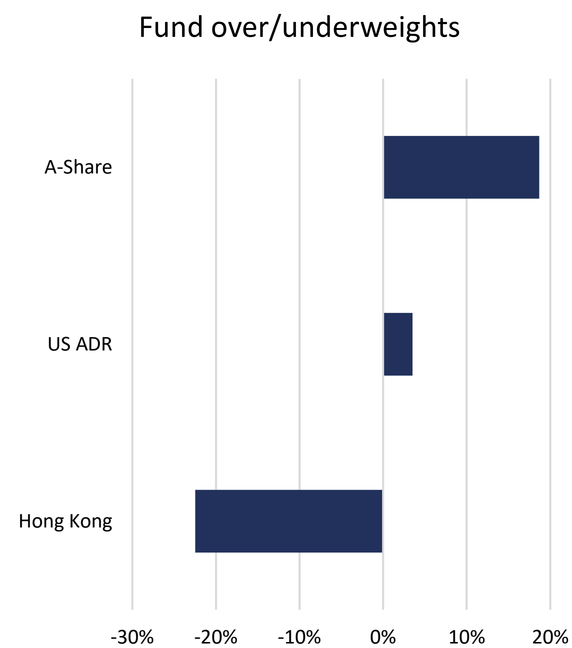




(Data as of 03/31/22, source: Bloomberg, Guinness Atkinson calculations)

On a listing basis, the Fund has 51% exposure to stocks listed in Hong Kong, 36% exposure to the A share market and 13% in China ADRs trading in the US.





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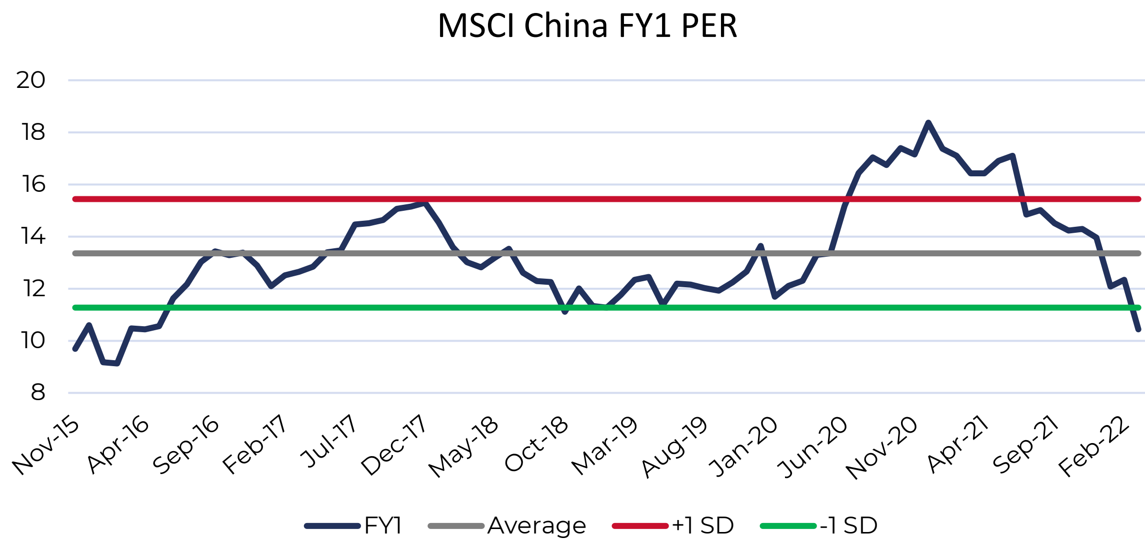
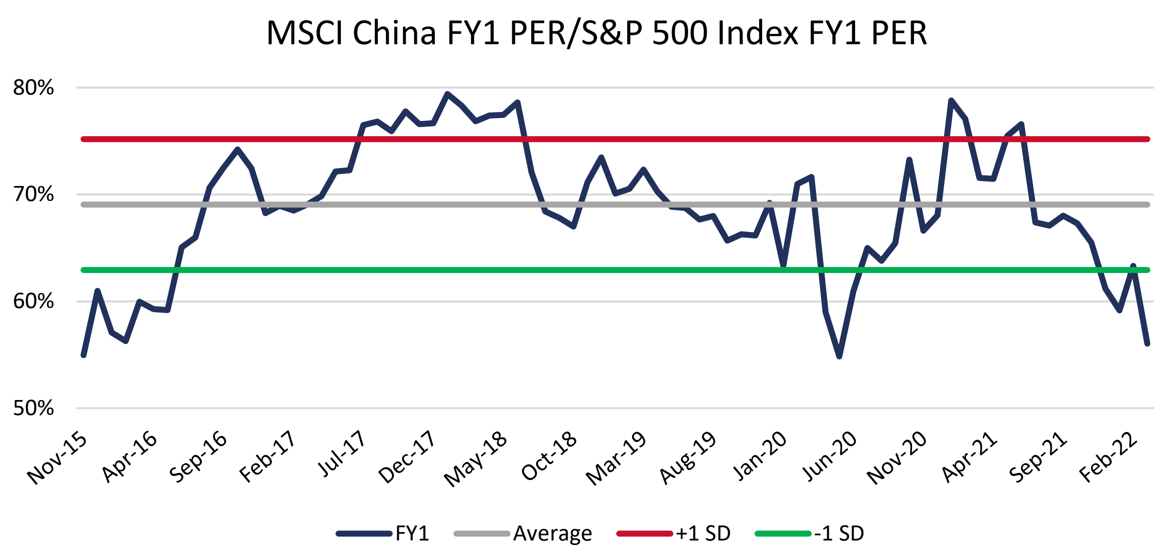
Outlook

Currently Shanghai is in a hard lockdown after daily cases spiraled out of control. Given the city's economic importance, it tried a more relaxed set of restrictions but these were not enough to control the spread of the more contagious Omicron variant. Many other cities and provinces have movement restrictions in place which only places more pressure on economic growth. The government has repeatedly said it needs to do more to stimulate growth but so far we have only seen a marginal fall in interest rates, which is not enough to boost the economy. On the housing front, every week we are seeing more cities loosening home purchase restrictions which should make it easier for people to buy houses – this is an encouraging move which should stimulate growth. But we would also like to see more loose fiscal policies which allow consumption to take up a larger share of economic growth.

Given all the headwinds China is facing, valuations have now dropped below levels last seen during the US-China trade war. Compared to developed markets which are trading at above their historic average, we think China's low valuation is attractive. As of 03/31/22, MSCI China was trading at 10.4x on a one-year forward looking Price/Earnings ratio (P/E) basis, well below the S&P 500 at 19.7x. One may fairly argue that China often trades at a discount to the US, so we also show MSCI China's historical discount to the S&P 500. As of 03/31/22, MSCI China was trading at 56% of the P/E of the S&P 500, a level last seen in after the original COVID outbreak and late 2015/early 2016.



SD = Standard Deviation (Data from 11/30/15 to 03/31/22, source: Bloomberg, Guinness Atkinson calculations)

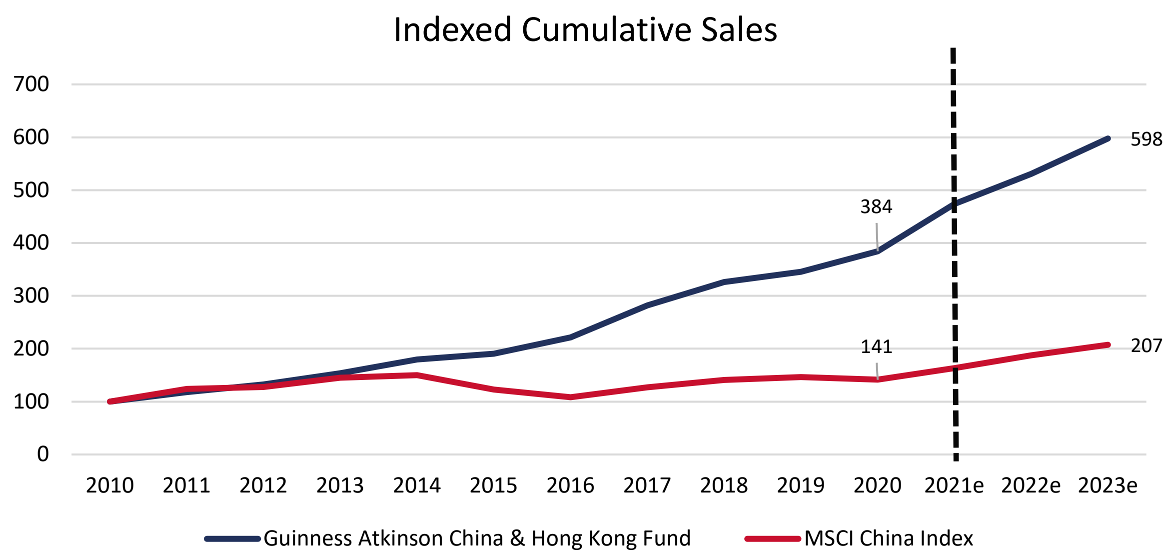


(Data from 11/30/15 to 03/31/22, source: Bloomberg, Guinness Atkinson calculations)

But low valuations are not enough on their own to justify an investment into the Fund. Over the long-term, it is earnings growth which drives shareholder return. Our focus remains on investing in good quality growing companies run by honest people.

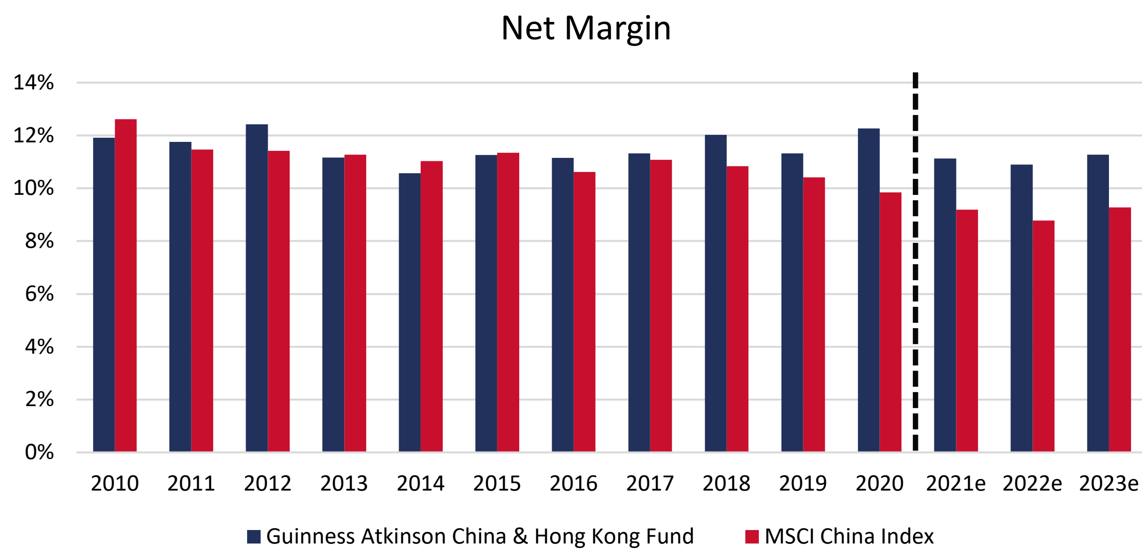
Why do we think the Fund is invested in good companies? We like to look at our companies' operating performance over the longer term. Below we show the current holdings' total sales over the past 10 years, from 2010 to 2020. We pick 2020 rather than 2021 as the end year because many of our A shares have not yet reported their final 2021 results.

Over the past 10 years, our current holdings' historic sales have grown by 284%. In contrast, the MSCI China Index has only grown sales by 41%. We believe that our focus on structural growth themes has resulted in significantly higher compounded sales growth for the Fund.



(Data as of 03/31/22, sales in USD, source: Bloomberg, Guinness Atkinson calculations. Each series is rebased to 100 in 2010. Calculations for the Fund done on a historic basis based on holdings as of 03/31/22, excluding the position we are in the process of selling.)

Now we must look at margins to see if the Fund's higher sales growth translates to higher earnings growth. For the past five years, the Fund's holdings have had a higher net margin than the MSCI China Index i.e., each dollar of sales has generated higher net profits for the Fund. Furthermore since 2016, the positive gap between the Fund's holdings and the index has widened. The market is expecting the Fund to have a net margin of 11.1% in 2021 compared to 9.2% for MSCI China.



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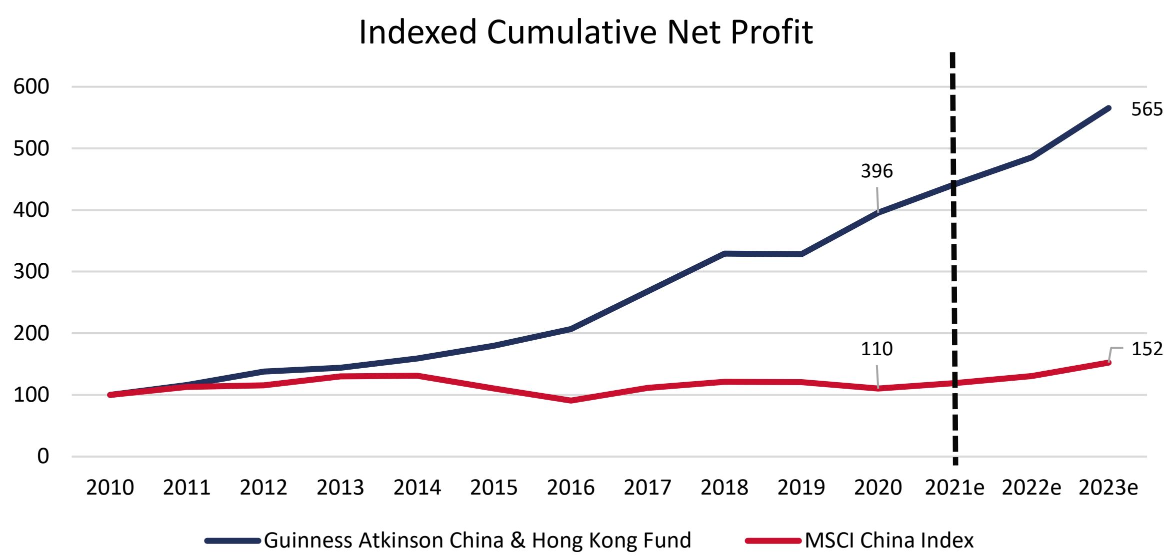
As a result, over the past ten years, the net income of our current portfolio companies has grown by 296% compared to only 10% for the MSCI China Index. This higher growth is due, we believe, both to superior structural growth exposure and to rising company profit margins over the past 10 years, whereas for the MSCI China Index, net margins have fallen significantly.



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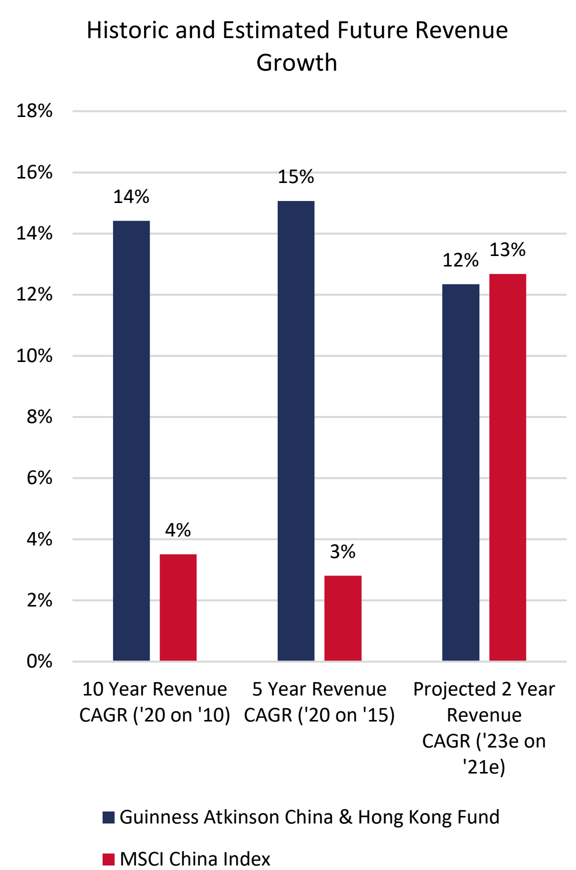
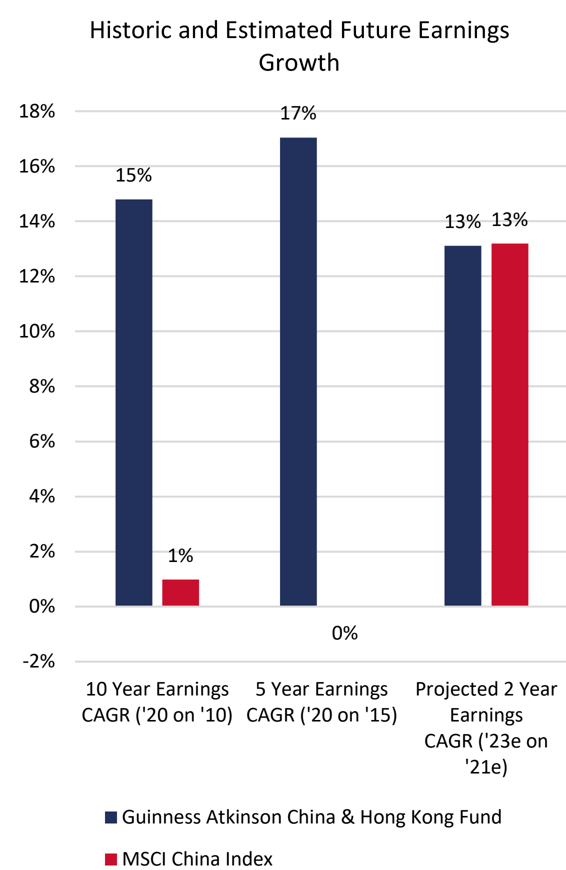
Over the next two years, based on consensus analyst estimates, the market is expecting sales for the Fund to grow at 12% a year, in line with MSCI China. The market is expecting the Fund's net income to grow at 13% a year for the next two years, in line with 13% for MSCI China. However, given that over the past 10 years MSCI China's earnings have essentially been flat, we question whether analysts are being too optimistic for the index. In contrast, the market's expectation of 13% earnings growth for the Fund is just below its historic 10-year compound average growth rate. Our companies have shown they have actually been able to grow at actually a higher rate than forecasts, whereas the broader market has tended to disappoint.





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In summary, we think we have shown the Fund is invested in quality, profitable companies which have compounded earnings over time. We believe this is because of our focus on structural growth themes and because of this focus, we expect this compounded quality growth to continue in the future. This set of good companies is trading at one of its cheapest valuations in recent years. We expect the government's loosening measures to lead to a bounce back in economic activity, which should lead to a rerating in the multiple investors are willing to pay for Chinese stocks. The Fund is valued at 13.1x on estimated 2022 earnings, which puts it at a 18% premium to the MSCI China Index. We hope we have shown in this outlook that this premium is worth paying for.

Edmund Harriss (portfolio manager)

Sharukh Malik (portfolio manager)

Performance

As of 03/31/2022	YTD	1 Year	3 Year	5 Year	10 Year
China & Hong Kong Fund (ICHKX)	-15.16%	-25.13%	0.31%	3.97%	3.58%
Hang Seng Composite Index TR	-8.83%	-24.19%	-2.49%	2.88%	4.77%
MSCI China Net Total Return Index	-14.19%	-32.54%	-3.01%	3.51%	4.54%

All returns over 1 year annualized. *Source: Bloomberg, Guinness Atkinson Asset Management.*

Expense Ratio: 1.60%

Performance data quoted represents past performance; past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the Fund may be lower or higher than the performance quoted. Performance data shown is current to the most recent month and quarter end. To obtain performance as of the most recent month end, please visit www.gafunds.com or call 1-800-915-6565. Performance data does not reflect the 2% redemption fee for shares held less than 30 days and, if deducted the fee would reduce the performance noted.

The Fund's investment objectives, risks, charges and expenses must be considered carefully before investing. The statutory and summary prospectus contains this and other important information about the investment company, and it may be obtained by calling 800-915-6566 or visiting gafunds.com. Read it carefully before investing.

Investments in foreign securities involve greater volatility, political, economic and currency risks and differences in accounting methods. These risks are greater for emerging markets countries. The China and/or Hong Kong stock markets in which the Fund invests may experience periods of volatility and instability. These fluctuations may cause a security to be worth less than it was at the time of purchase. Market risk applies to individual securities, a particular sector or the entire economy. China and/or Hong Kong stocks may fall out

of favor with investors, the value of Chinese currencies may decline relative to the U.S. dollar and/or China or Hong Kong stock markets may decline generally. The Fund invests in invest in small-cap or mid-cap, which involve additional risks such as limited liquidity and greater volatility, than investments in larger companies.

One cannot invest directly in an Index.

MSCI AC Asia Pacific ex Japan Index is free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of countries in the Asia Pacific region.

MSCI Europe Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of European markets.

MSCI EM Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of Emerging markets in Asia, Europe, Middle East, Africa and Latin America.

MSCI EM ex China is the same as the MSCI Emerging Markets Index but excludes China.

The Shanghai Shenzhen CSI 300 Index is a market capitalization-weighted stock market index designed to replicate the performance of the top 300 A-share stocks traded in the Shanghai and Shenzhen stock exchanges.

Hang Seng Composite Total Return Index is a market capitalization weighted index that monitors the performance of stocks listed in Hong Kong.

MSCI China Index captures large and mid cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs). With 703 constituents, the index covers about 85% of this China equity universe.

MSCI Golden Dragon is a composite of the MSCI China, Hong Kong and Taiwan Indices which are free float-adjusted market capitalization weighted indices that is designed to measure the equity market performance of the respective markets.

MSCI Japan Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the Japanese market.

MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets.

S&P 500 Index is a market-capitalization-weighted index of leading publicly traded companies in the U.S.

The MSCI China A Index captures large and mid-cap representation across China securities listed on the Shanghai and Shenzhen exchanges. The index covers only those securities that are accessible through "Stock Connect".

MSCI Hong Kong Index is a capital weighted stock index designed to measure the performance of the large and mid cap segments of the Hong Kong market. It has 48 constituents and covers approximately 85% of the free float-adjusted market capitalization of Hong Kong equity stocks.

MSCI China Value Index captures large and mid cap Chinese securities exhibiting overall value style characteristics. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price, and dividend yield.

MSCI China Growth Index captures large and mid cap securities exhibiting overall growth style characteristics across the Chinese equity markets.

MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets.

A Purchasing Managers' Index (PMI) is an index measuring economic trends in manufacturing.

Consumer price inflation measures the increase in prices of a broad basket of consumer goods.

Producer price inflation measures the increase in prices of a broad range of producer goods that are bought and sold by businesses.

Shanghai Composite Index, also known as SSE Index, is a stock market index of all stocks that are traded at the Shanghai Stock Exchange.

The MSCI China A Onshore Value Index captures large and mid capitalization stocks listed in Shanghai or Shenzhen, which are deemed by MSCI to show overall value style characteristics.

The MSCI China A Onshore Growth Index captures large and mid capitalization stocks listed in Shanghai or Shenzhen, which are deemed by MSCI to show overall growth style characteristics.

Price/Earnings ratio (P/E) is an equity valuation multiple. It is defined as market price per share divided by annual earnings per share

Standard deviation (SD) is a statistic that measures the dispersion of a dataset relative to its average.

Opinions expressed are subject to change, are not a guarantee and should not be considered investment advice. Past performance is not indicative of future results.

Top Fund Holdings as of 3/31/2022:

1.	China Overseas Land & Investments Ltd	4.21%
2.	NetEase Inc	4.01%
3.	NARI Technology Co Ltd	3.89%
4.	AIA Group Ltd	3.81%
5.	JD.com Inc	3.77%
6.	China Medical System Holdings Ltd	3.68%

7.	Xinyi Solar Holdings Ltd	3.66%
8.	China Merchants Bank Co Ltd - H Shares	3.55%
9.	Chongqing Fuling Zhacai Group Co Ltd	3.46%
10.	Inner Mongolia Yili - A Shares	3.41%

Fund holdings and sector allocations are subject to change and are not recommendations to buy or sell any security.