Guinness Atkinson

China & Hong Kong Fund

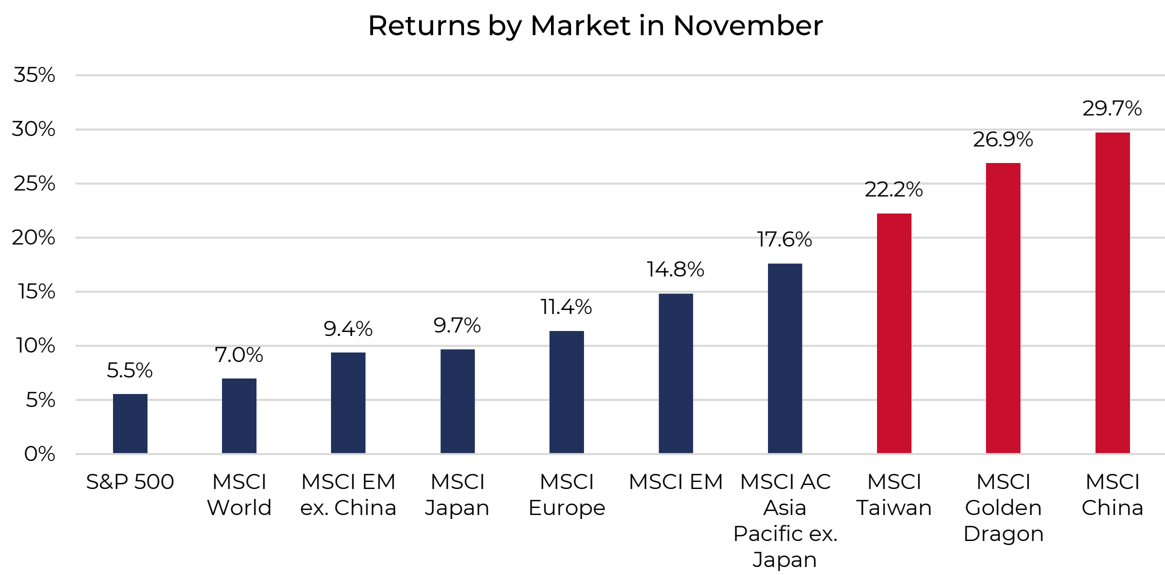
Managers' Update – December 2022

Summary Review & Outlook

Summary View

- In November, the MSCI China Total Return Index ("MSCI China Index") rose by 29.7% (in USD unless otherwise stated).
- The strongest stocks in the portfolio were JD.com, Ping An Insurance and China Merchants Bank. The weakest were Wuxi Lead Intelligent Equipment, Hangzhou First Applied Material and Shenzhen H&T Intelligent.

Market Commentary



(Data from 10/31/22 to 11/30/22, returns in USD, source: Bloomberg, Guinness Atkinson calculations)

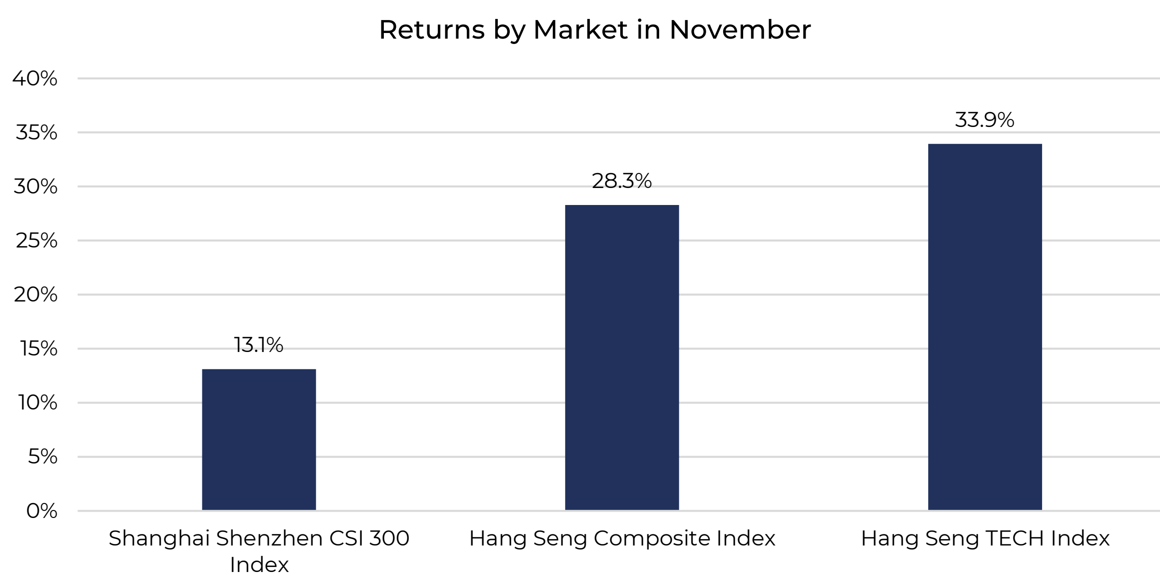
Chinese markets were strong in November, with the MSCI China Index rising 29.7% compared to the MSCI World Index which rose 7.0%. It was a volatile month, with Chinese markets initially rallying in the first two weeks of the month, giving back some of the gains the following week, and then rallying at the end of the month.

Following the political events in October, we saw significant changes in China's COVID-19 and real estate policies. On the COVID-19 front, the number of days required for centralized quarantine was cut from 7 days to 5 days. The classification of risk districts was simplified into just high and low risk districts, eliminating mid risk districts. The number of days required to move from a high to low risk was cut by five days, meaning to be classified as low risk, a district only needed no new cases over five consecutive days. Additionally, close contacts of close contacts of people testing positive for COVID-19 were to be no longer identified, significantly reducing the pressure on quarantine facilities. Some areas dropped the requirement to have a negative PCR test 48 hours before long distance journeys. The People's Daily, a government-run newspaper, for the first time played down the long-term impact of COVID-19 on health outcomes. Therefore, following the weakness of Chinese markets in October, they rallied sharply on the relaxation of COVID-19 policy.

However, as the easing was announced, COVID-19 cases increased sharply, surpassing the peak seen in spring when Shanghai locked down. In response many cities and towns introduced lockdowns and movement restrictions, as local government officials ignored the new rules issued by central government. Chinese markets sold off moderately on the lockdowns in the middle of the month.

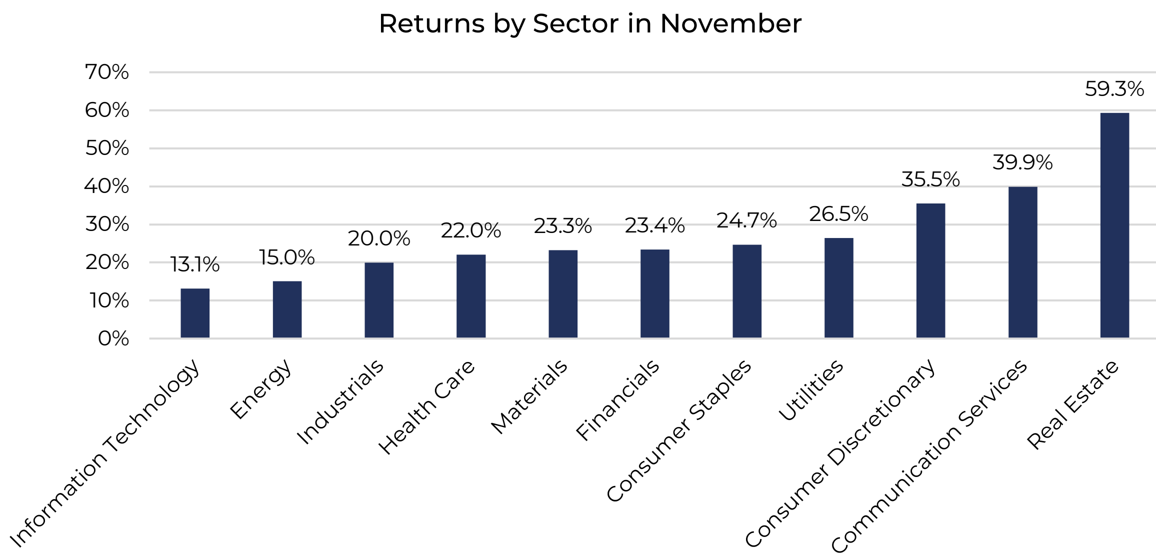
In a surprising turn of events, protests over lockdowns and movement restrictions spontaneously erupted in multiple cities across China. This demonstrated the frustration of much of the population over the continuous cycle of lockdowns and movement restrictions. In our opinion, the level of discontent surprised the government and certainly increased the cost of maintaining the status quo.

Soon after the protests there was a clear relaxation in COVID-19 restrictions. Despite the high level of cases, cities such as Shenzhen and Tianjin no longer required PCR tests to use public transport. Some cities dropped the requirement to enter specific public spaces. Some people were allowed to quarantine at home, as opposed to quarantining at a centralized facility. Reports indicated the government again was aiming to get the elderly to either get their first COVID-19 vaccine, or to get their booster shot. Consequently, Chinese markets rallied sharply at the end of the month.



(Data from 10/31/22 to 11/30/22, returns in USD, source: Bloomberg, Guinness Atkinson calculations)

In November the rally was led by foreigners buying popular offshore listed technology stocks. The Hang Seng Tech Index rose 33.9% in November. More generally, offshore markets were stronger than onshore markets, as the Hang Seng Composite Index rallied 28.3%. Meanwhile, onshore investors in the mainland were less bullish, perhaps as many were still subject to some form of movement restrictions. The Shanghai Shenzhen CSI 300 Index rose by only 13.1% in November.



(Data from 10/31/22 to 11/30/22, returns in USD, source: Bloomberg, Guinness Atkinson calculations)

While in October the Real Estate sector was weakest, in November it was by far the strongest, rising 59.3%. After the political events concluded in October, the government also announced a raft of policies designed to boost the property sector. More loans from the state-owned banks were extended to property developers to ensure work continues on existing projects. Private developers, who are struggling compared to their state-owned counterparts, are to receive equal treatment in stimulus measures. Loans can be rolled over for a year where the loan is maturing within six months, which the banks will not have to immediately classify as non-performing. These policies were well received by the market but we believe that one of the strongest sources of stimulus is China moving away from its zero COVID policy. This is likely to boost consumer confidence and demand, allowing them to spend the savings they have accumulated over the past year.

Outlook

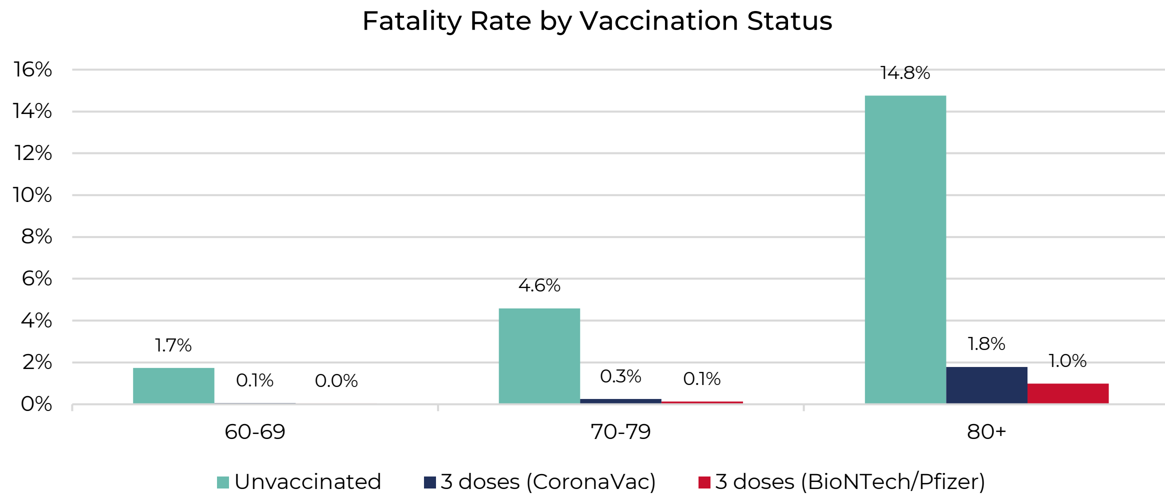
In early December, we have seen the central government further relax its zero COVID policy. Subject to certain conditions, now anyone who is asymptomatic or has mild symptoms can quarantine at home, instead of having to quarantine in government run buildings. Close contacts of people with COVID-19 can also choose to quarantine at home. In many cases PCR tests are not required to enter most public places. Lockdowns and movement restrictions now also have to be much more granular e.g., rather than locking down a whole area, local governments can lockdown a particular building or even a particular floor in a building.

The news is positive for markets, but we exercise caution as the path forward is likely to be volatile. As China relaxes policies, COVID-19 cases are very likely to increase. Given that a record number of COVID-19 cases was just reached before China significantly eased COVID-19 policies, this will mark uncharted territory from this perspective. It is likely that if the strain on the medical infrastructure becomes too high, movement restrictions may be tightened again to reduce pressure on the system. While the direction of travel is positive, there may be periods where the COVID-19 policy is loosened, followed by periods of restrictions to manage the number of COVID-19 cases. We stress that this is a sensible policy for the Chinese to follow and is no different to what we saw in the UK when restrictions were eased.

In terms of data points to watch, a key one is the vaccination rate of the elderly. Not enough of the elderly are vaccinated and not enough have taken their booster shot. We estimate that about 15% of the age 60+ group have not received the vaccine and about 1/3 of 60+ group have not received the booster. Since the elderly have worse outcomes with regards to COVID-19, it is vital for them to get vaccinated.

The issue then is convincing the elderly to get vaccinated. Reasons for not getting vaccinated are numerous – there is no one dominant reason. They include a preference for traditional Chinese medicine, which is cultural factor. There is some distrust as to the effectiveness of the domestic vaccines, given the relative weaker transparency in trials. In healthcare, general practitioners (GPs) do not provide vaccination services and have no incentive to promote vaccination rates. Lack of knowledge by those running vaccination clinics means that some elderly patients are advised not to get vaccinated, because of the incorrect belief that the side effects of the vaccine are greater than the benefits. These headwinds need to be overcome if China is to eventually drop all COVID-19 restrictions. Given the costs of sticking with the status quo have significantly increased following the protests, the government has greater incentive to overcome these headwinds.

We also point out that the type of vaccine used is not that important. For example, it is more important to get the elderly vaccinated with any vaccine, than it is for the Chinese to develop their own mRNA vaccine. Though the Chinese vaccines are not as effective as the foreign mRNA vaccines, we believe they are more than good enough in preventing significant fatalities for the elderly group. Below we show data from Hong Kong, where the population can get a Chinese vaccine based on an inactivated virus (CoronaVac) or a foreign mRNA vaccine (Pfizer). The chart looks at the fatality rate by vaccination status for each age group (number of fatalities in each category for someone who tested positive for COVID-19). If we look at the 80+ group, the fatality rate for the unvaccinated is 14.8%. Getting three doses of the Chinese vaccine reduces the fatality rate significantly to 1.8%. Getting the BioNTech/Pfizer vaccine reduces the rate further to 1.0%. While the Chinese vaccines are not as effective as foreign mRNA, they are more than good enough in cutting down fatalities, for those who are currently unvaccinated.



Data from 12/31/21 to 11/16/2022. Source: The Government of the Hong Kong SAR, Guinness Atkinson calculations. "COVID-19 death case is defined as a death in a person with positive SARS-CoV-2 result and died within 28 days of the first positive specimen collection day. The underlying cause of death may have been unrelated to COVID-19."

Edmund Harriss (portfolio manager)

Sharukh Malik (portfolio manager)

Performance

In November, sources of underperformance included:

Fund underperformance was mainly driven by the underweight in the tech giants (Tencent, Alibaba, Meituan and Pinduoduo), which were outperformers. This led to a 28.3% rally in the Hang Seng Composite Index. Meanwhile, the A share market was relatively subdued, rising 13.1%. Relative to the Hang Seng Composite Index and MSCI China Index, the Fund is overweight to the A share market and this was a drag on performance. As China gradually moves away from zero COVID, we expect more mainland enthusiasm for A shares, along with greater foreign demand, which should benefit the Fund's overweight to the market.

As of 11/30/2022	YTD	1 Year	3 Year	5 Year	10 Year
China & Hong Kong Fund (ICHKX)	**-25.04%**	**-24.47%**	**-3.83%**	**-3.23%**	**2.69%**
Hang Seng Composite Index TR	**-20.33%**	**-21.47%**	**-5.10%**	**-4.16%**	**2.48%**
MSCI China Net Total Return Index	**-25.79%**	**-28.13%**	**-6.58%**	**-5.14%**	**2.39%**

As of 09/30/2022	YTD	1 Year	3 Year	5 Year	10 Year
China & Hong Kong Fund (ICHKX)	**-33.12%**	**-31.35%**	**-5.44%**	**-3.87%**	**2.01%**
Hang Seng Composite Index TR	**-27.67%**	**-31.27%**	**-7.37%**	**-5.02%**	**2.20%**
MSCI China Net Total Return Index	**-31.23%**	**-35.39%**	**-7.17%**	**-5.55%**	**2.36%**

All returns over 1 year annualized.

Source: Bloomberg, Guinness Atkinson Asset Management.

Expense Ratio: 1.50%

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.

Standard deviation is the statistical measure of market volatility, measuring how widely prices are dispersed from the average price. If prices trade in a narrow trading range, the standard deviation will return a low value that indicates low volatility.

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.

In China, the National Bureau of Statistics (NBS) Manufacturing Purchasing Manager Index measures the performance of the manufacturing sector and is derived from a survey of more large-scale, state-owned companies. The Manufacturing Purchasing Managers Index is based on five individual indexes with the following weights: New Orders (30%), Output (25%), Employment (20%), Suppliers' Delivery Times (15%) and Stock of Items Purchased (10%), with the Delivery Times index inverted so that it moves in a comparable direction.

The Caixin PMI measures the performance of the manufacturing sector and is derived from a survey of more private companies.

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.

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.

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 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.

The MSCI Taiwan Index is designed to measure the performance of the large and mid-cap segments of the Taiwan market. With 88 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Taiwan.

Hang Seng TECH Index was launched in July 2020. It represents the 30 largest technology companies listed in Hong Kong that have high business exposure to technology themes.

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

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.

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

American depositary receipt (ADR) refers to a negotiable certificate issued by a U.S. depositary bank representing a specified number of shares—usually one share—of a foreign company's stock. The ADR trades on U.S. stock markets as any domestic shares would.

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

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 11/30/2022:

1.	Venustech Group Inc	4.46%
2.	CSPC Pharmaceutical Group Ltd	4.43%
3.	JD.com Inc	4.36%
4.	AIA Group Ltd	4.34%
5.	Shenzhen Inovance Technology Co Ltd	4.33%
6.	NARI Technology Co Ltd	4.23%
7.	China Overseas Land & Investments Ltd	4.04%
8.	China Medical System Holdings Ltd	4.02%
9.	Haier Smart Home Co Ltd	3.78%
10.	NetEase Inc	3.72%

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

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