
Summary Review & Outlook

Market

- In February, MSCI China fell 3.9% (in USD unless otherwise stated) and MSCI Hong Kong fell 2.8%. The CSI 300 Index, which covers the largest stocks in the onshore market, rose 1.2%.
- MSCI China Value fell 1.7% while MSCI China Growth fell 6.0%. The MSCI China A Onshore Value Index rose 1.4% while the MSCI China A Onshore Growth Index rose 2.4%.
- In MSCI China, the strongest sectors were Materials (total return +10.6%), Energy (+7.4%) and Consumer Staples (+1.6%), while the weakest were Communication Services (-9.0%), Consumer Discretionary (-7.2%) and Real Estate (-4.9%).
- In Hong Kong, the Real Estate and Financials sectors fell 4.5% and 4.8% respectively.

Events & 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.
- Average house prices in China rose 1.5% on a month-on-month basis. Though this is clearly positive, it is important to note the divergences between the various markets. House prices rose in tier 1 and 2 cities but fell in tier 3 and 4 cities, continuing the trend from December. On the other hand, housing transactions in major cities fell 27%. We have noted that multiple cities have decreased downpayment ratios which should provide a boost for the market.
- The stock of total social financing, a broad measure of credit growth, grew 10.5% which was higher than expected. The central bank has indicated this year will see front-loaded monetary easing. Delving deeper into the data, the biggest acceleration in credit growth came from short-term corporate loans, corporate bond issuance and government bond issuance.
- Consumer price inflation (CPI) was 0.9% in January, much lower than 7.5% in the US and 5.5% in the UK. China's post COVID monetary support was much milder compared to developed markets, partly explaining its much lower CPI. On the other hand, producer price inflation (PPI) was 9.1% in January in China, though it did fall from 10.3% in December and is well below October's value of 13.5%. Coal and steel prices have been falling but at the same time, oil and gas prices have been rising.

Macro Commentary

Russia's invasion of Ukraine has raised the question of whether China may see this as an opportunity to take over Taiwan. Just a few months ago, the idea of an invasion in Ukraine would have been dismissed as almost inconceivable and therefore we cannot rule out a similar move by China. However, we think that while re-unification with Taiwan remains a strategic priority for Xi Jinping, it is not the priority. Indeed, there are good reasons to believe that China has been taken by surprise not least the absence of any plan to evacuate its citizens ahead of time.

China's goal over the last forty years has been to restore the country's economic strength and to maintain domestic stability through a steady improvement in the standard of living. This process has increased China's engagement with the world's trade and financial system. China's foreign exchange reserves are over \$3 trillion while the value of merchandise trade last year exceeded \$6 trillion. Its economy is estimated to have reached \$18 trillion in nominal terms in 2021 (CNY 114.4 trillion according to China's National Bureau of Statistics) making it the world's second largest in aggregate, but on a per capita basis at \$13,000 it is still a laggard.

This is something that China is trying to rectify, by developing key industries which rely less on labor and more on value-add, in order to become a higher income consumer economy. As part of this program there have been efforts to open up to foreign investors, develop more localized centers of production to secure supply chains (which came in their own during COVID). The currency has been operated as a managed float since 2011, and on a path toward internationalization the Yuan forms part of the International Monetary Fund's Special Drawing Rights. To become a reserve currency, that is one that central banks use as part of their foreign exchange reserves, the Yuan needs to be stable, liquid, and financial assets denominated in that currency (i.e. Government bonds) need to be seen as a store of value.

In less than a week, the decision by Vladimir Putin has turned Russia into an international pariah. The U.S. has demonstrated international leadership and repaired much of the damage to its European relations in the Trump years; the EU has adopted a unified stance and Germany has reversed the 75-year post-war consensus on defense; the NATO alliance has renewed relevance and has been rejuvenated. Financial sanctions, unprecedented in speed and scope have closed off access to most (but not all) avenues to external funding and by including the central bank, have denied Russia access to over \$400 billion of its \$640 billion foreign exchange reserves. The domestic currency has collapsed; there is no access for Russian bond issuers, government or private, to foreign funding and if they cannot (or will not) pay interest or principal those bonds will be next to worthless. This then, is a cautionary tale for China whose economy is built around an increasing breadth of engagement.

We think, therefore, that China will prioritize mitigation of the economic shock in the immediate term but there will be longer term considerations too. In the short term, China has just announced an economic growth target of 5.5% in 2022. There are some who will point out that this is the lowest rate since 1990, which is true. What is also true is that in 1990 China's GDP was 1/50th its current size in real terms and its GDP per capita was \$346 (1/37th the size, given the 22% growth in population between then and now). The important things to take away from this year's growth target are first, this is a number more consistent

with an economy at this stage of development and size; second, it is above the current economic growth run rate and so implies more aggressive monetary easing and support to achieve it. The current economic challenges facing China center on the slowing property market and higher materials prices. The economic shock from the Russian invasion for China is indirect, transmitted through higher energy and commodity prices and by the potential for weaker demand for exports of manufactured goods. China sent 21% of its exports to Europe last year, which is likely to be the most affected area. Russia accounted for just 2% of China's exports in 2021. Imports from Russia (gas, oil, wheat primarily) were 2.9% of China's total in 2021, but with a value of \$78 billion take on geopolitical significance as international sanctions tighten.

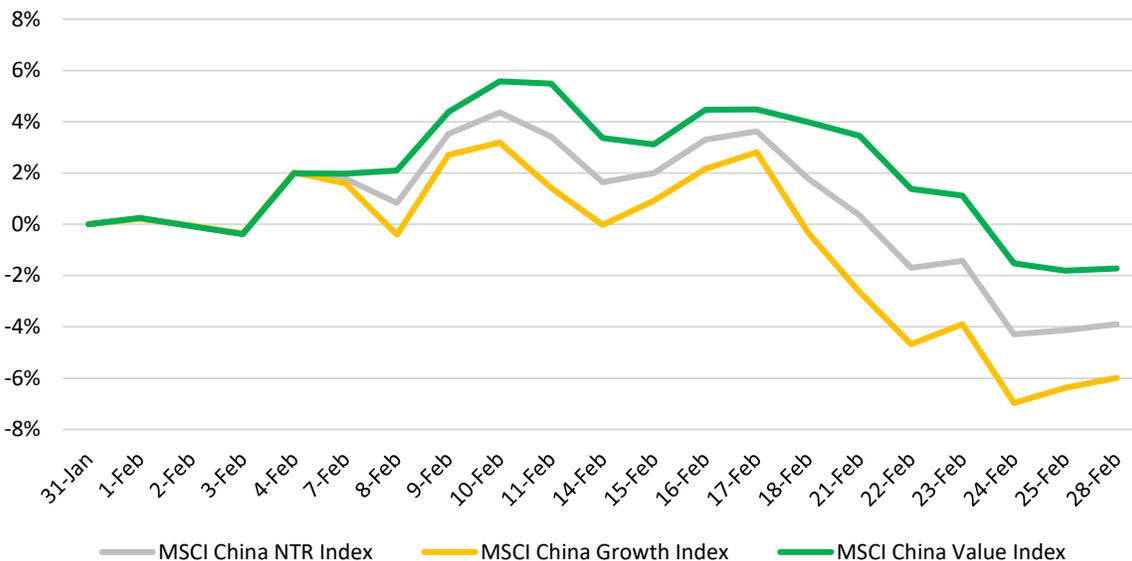
Over the longer term, China's geopolitical calculations must now factor in a set of western democracies with a more unified sense of purpose. China is also faced with an ally who seems, despite recent apparent warmth, to be pursuing its own very different agenda. In terms of the West, China has thrived in an era of division and a diminished ability of the US and Europe to respond coherently. The speed and nature of the sanctions imposed on Russia will likely lead to changes in the way and where China holds its foreign reserves. We do not expect to see selling of US Treasuries, but they may well be held in places where they are unlikely to be frozen. The exclusion of Russian banks from the SWIFT (Society for Worldwide Interbank Financial Telecommunication) messaging system makes China's own Cross-Border Interbank Payment System (CIPS) more valuable. The U.S. threat to deny access to the U.S. dollar market, a stick with which it enforces compliance with its sanction policies (against Iran, for example) and with which Chinese banks comply, may also cause China to accelerate the internationalization of the Yuan. But today, the dollar still rules supreme with over 80% of cross-border transactions dollar denominated and China's Yuan and CIPS system nowhere close to being an alternative.

China also has a Russia problem. As discussed earlier, despite the warm words following Putin's recent meeting with Xi at the Winter Olympics, it is probable that China was not told of the invasion. Furthermore, relations between the two nations seem to be built not so much on mutual trust but on a mutual mistrust of the U.S. China's Belt and Road initiative consists of both sea and land routes and is designed not only to open up trade routes but also to provide access to the resource rich nations of central Asia. The land routes considered must pass through central Asia into Kyrgyzstan and then either South through Uzbekistan, Tajikistan and Turkmenistan, through Turkey and then into Europe or turn North through Kazakhstan and then through Poland into Europe. Ukraine lies in the middle of the proposed entry points into Europe.

A hearing before the Congressional United States – the China Economic and Security Review Commission in March 2015 - gives some interesting insights into some of the prevailing relationships and attitudes of these countries toward their two powerful neighbors. There are clearly cultural and religious factors at play that may indicate a predisposition toward either China or Russia but it is clear that China has made substantial progress in establishing infrastructure and large investments have been made by all the countries in the Caucuses and central Asia.

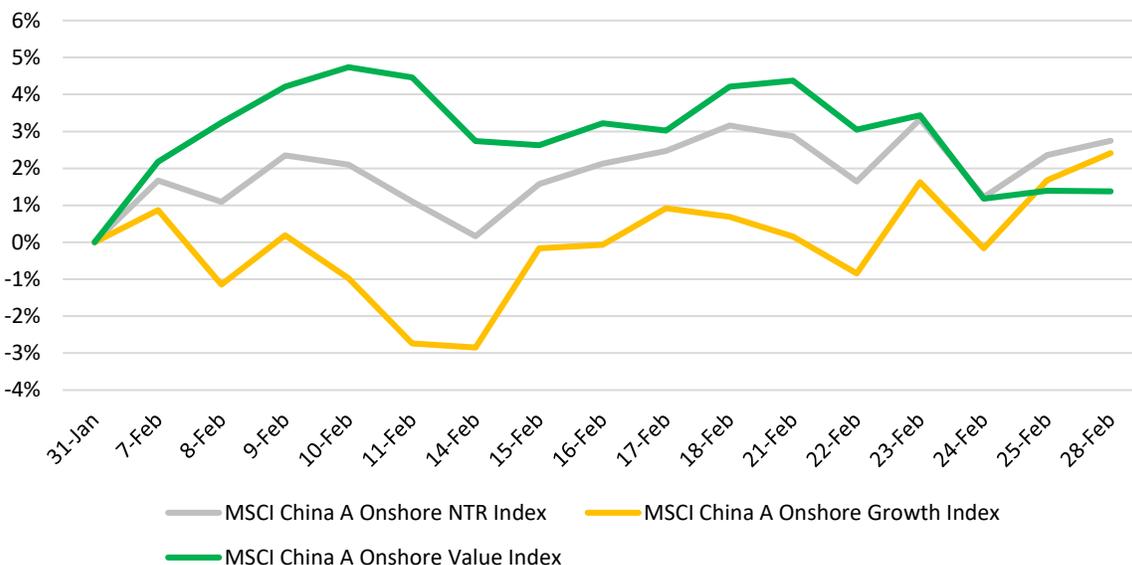
Market Commentary

Offshore Performance



(Data from 01/31/22 to 02/28/22, returns in USD, source: Bloomberg and Guinness Atkinson calculations)

Onshore Performance



(Data from 01/31/22 to 02/28/22, returns in USD, source: Bloomberg and Guinness Atkinson calculations)

In contrast to January, onshore markets were stronger in February, with the CSI 300 Index rising 1.2% and the MSCI China A Onshore Index rising 2.8%, compared to the MSCI China Index falling 3.9% and the Hang Seng Composite Index falling 3.8%. Part of the reason for the divergence was the weak performance of technology stocks which are predominantly listed in the offshore market. Meituan was told by the government to reduce its services charges, to help smaller and medium 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 prices. 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 their operations in the metaverse.

Stock Commentary

Results have started to come through for the Fund's holdings:

Fuling Zhacai is a condiment manufacturer and reported its preliminary 2021 results, with revenue rising 11% and net income falling 5%. The business increased its marketing expense in the year in order to grow the business, and so we are not concerned with the fall in net income. In response to rising costs, Fuling Zhacai increased its prices, a sign of its pricing power. Looking to 2022, mustard root costs have fallen which should boost margins.

Alibaba's results were mixed, with revenue from the customer management segment falling 1%. Though volumes increased, Alibaba is having to offer discounts in the face of intense competition. The cloud business continues to grow but its growth rate has decelerated due to the loss of Bytedance's business abroad. We continue to hold Alibaba because it is China's largest e-commerce platform and should benefit from network effects, but we are aware the business is facing headwinds. We limit our risk to Alibaba through the portfolio's equally weighted nature, where each position has a neutral weight of ~3.3%. This is contrast to the MSCI China Index, where Alibaba had a weight of 9.0% as of 01/31/21.

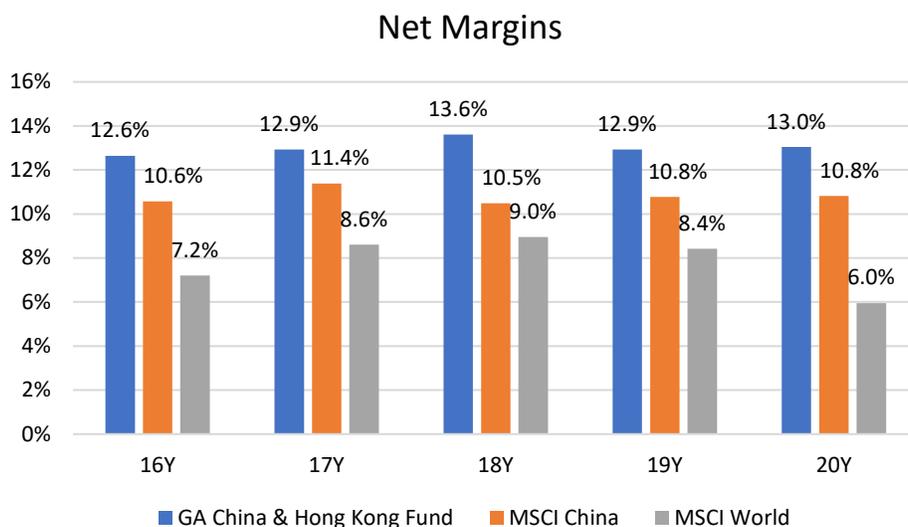
Netease, a video game developer, reported good fourth quarter results. Revenue from both mobile and PC games continue to grow robustly, boosted from the company's new Harry Potter game. The company has a good pipeline of games being developed which support future growth for the business.

In 2021, Xinyi Solar's revenue grew 30% and net income grew 8%. As the world's largest manufacturer of solar glass, the company benefits as the lowest cost producer, Volumes grew in 2021 but to due to lower solar glass prices and higher input costs, net income growth lagged revenue growth. We expect the company to benefit, in the coming years, from greater demand for solar energy.

Outlook

Russia's invasion of Ukraine has led to higher energy costs and so profit margins are likely to face some pressure. In the Fund, we have a quality filter to ensure we invest in high return on capital companies. The return on capital can be dissected into three components: revenue growth, profitability and asset turnover. All else equal, a higher margin business is also a higher return on capital business.

Below we show the Fund's net margin over the past five years, based on reported data. In each of the past five years, the Fund's net margin has been considerably higher than the MSCI China Index. The period encompasses the US-China trade war as well as disruptions caused by COVID – our companies have, in aggregate, handled this volatility well. Furthermore, in 2020, the Fund's net margin actually increased while the broader China market's margin was flat. We also show the Fund's net margin relative to the MSCI World Index for interest, where we can see the Fund's positive premium increases. We believe our set of companies superior profitability means they should be able to weather the increase in costs better than the overall market.



(Data as of 02/28/22, source: Bloomberg and Guinness Atkinson calculations)

Edmund Harriss (portfolio manager)

Sharukh Malik (portfolio manager)

Guinness Atkinson
China & Hong Kong Fund
 Managers' Update – February 2022



Performance

As of 02/28/2022	YTD	1 Year	3 Year	5 Year	10 Year
China & Hong Kong Fund (ICHKX)	-5.34%	-20.07%	5.12%	6.91%	4.17%
Hang Seng Composite Index TR	-3.92%	-22.49%	-0.25%	4.42%	4.73%
MSCI China Net Total Return Index	-6.73%	-31.29%	0.53%	5.70%	4.67%

As of 12/31/2021	YTD	1 Year	3 Year	5 Year	10 Year
China & Hong Kong Fund (ICHKX)	-6.70%	-6.70%	11.58%	10.53%	6.48%
Hang Seng Composite Index TR	-13.89%	-13.89%	4.80%	6.99%	6.96%
MSCI China Net Total Return Index	21.72%	-21.72%	7.76%	9.35%	7.16%

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.

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.

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.

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

Producer price inflation (PPI) 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.

Guinness Atkinson
China & Hong Kong Fund
Managers' Update – February 2022



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 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.

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 2/28/2022:

1. NARI Technology Co Ltd	5.85%
2. Inner Mongolia Yili - A Shares	4.44%
3. NetEase Inc	4.31%
4. China Overseas Land & Investments Ltd	4.29%
5. China Resources Gas Group Ltd	3.96%
6. CSPC Pharmaceutical Group Ltd	3.87%
7. Xinyi Solar Holdings Ltd	3.80%
8. Chongqing Fuling Zhacai Group Co Ltd	3.75%
9. Shenzhen H&T Intelligent Control Co., Ltd.	3.74%
10. JD.com 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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