

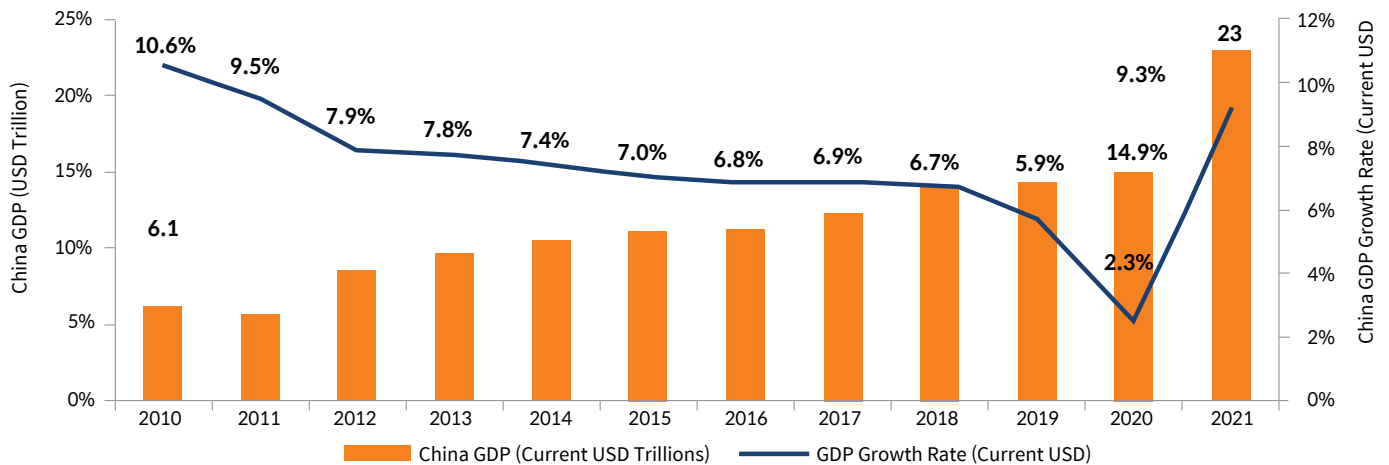
## Hang Seng TECH Index: Exposure to Top 30\* Tech companies of China



### China Growth Story

China is the second largest economy in the world after the United States. In 2020, China's GDP stood at US\$14.9 Trillion, which is nearly 3 times the GDP of the third largest economy, Japan (source: World Bank). China's GDP has also been growing at much faster pace than the other large economies around the world. Over the last 10 years (2010 to 2020), China's GDP in current terms has grown at a CAGR of 9.3%, while the US annual GDP growth stayed between 1.5

to 3% during this period (except 2020, when most of countries were in recession due to COVID-19). While United States' share of World GDP declined from 31% in 2000 to 25% in 2020, China's share of World GDP increased just 3.5% in 2000 to 17% in 2020. As per IMF estimates, the Chinese economy is expected to grow at a fast pace in the coming years reaching \$23 Trillion GDP mark by 2025



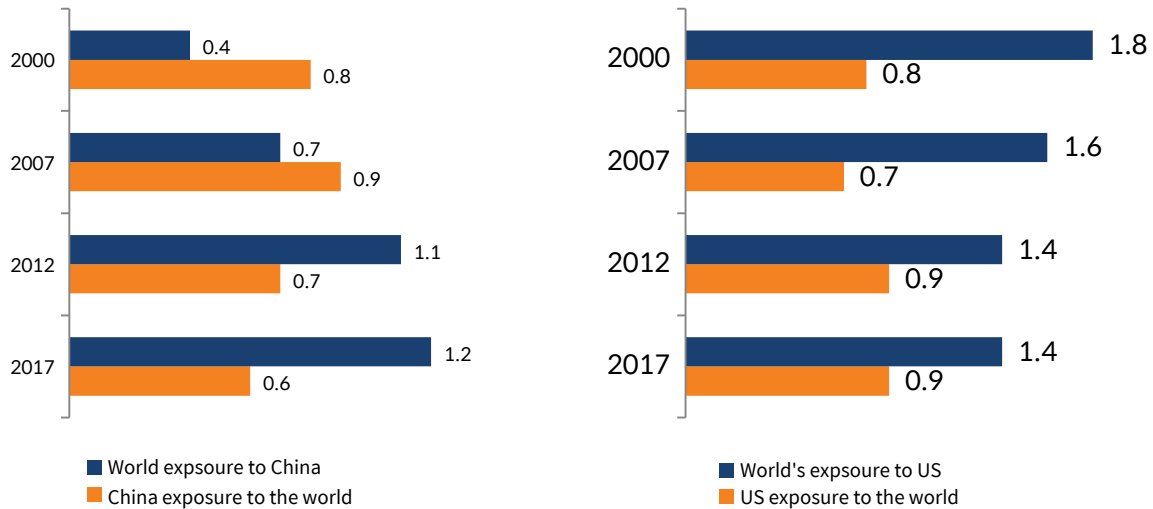
Source: World Bank, IMF, Data as on December 31, 2020

### Dominating global trade and commerce

China has also been dominating global trade. Since 2009, China has been the biggest exporter in the world. In 2020, Chinese exports (\$2.7 Trillion) accounted for 12% of global exports. With \$2.4 Trillion of imports in 2020, China is the second largest importer of the world. In terms of global capital flows, China is the second largest recipient of Foreign Direct Investments (FDI) after the United States.

The chart below shows China and United States' exposure to the world in terms of trade, technology and capital. A value of 1.0 as an average exposure

index between the world and seven large economies (China, France, Germany, India, Japan, the United Kingdom, and the United States; a value greater than 1.0 suggests the world is more exposed to China than to the seven large economies, on average, whereas a value less than 1.0 suggests the world is less exposed to China than to the seven large economies. You can see that the world's exposure to China has increased over the past two decades, while the world's exposure to the US has remained relatively stable

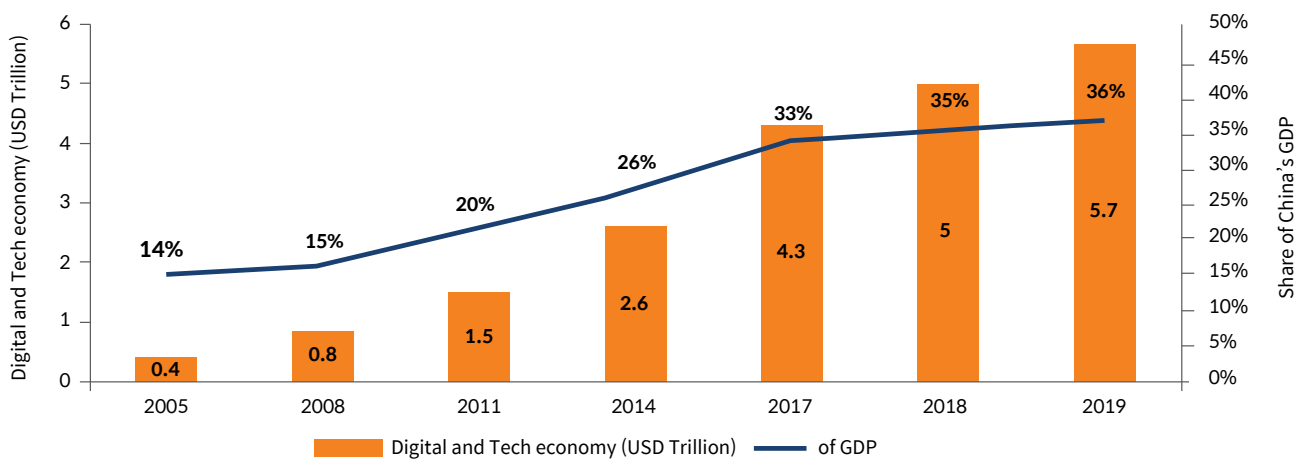


Source: McKinsey Global Institute, China and the World; Inside the dynamic of a changing relationship, 2019

## Growth of technology and digital economy in China

China's digital and tech economy has grown from \$400 Billion in 2005 to \$5.7 Trillion in 2019 at a CAGR of more than 20%. Share of digital and tech in Chinese GDP has grown from 14% in 2005 to 36% in 2019 (see the chart below). Technology is expected to lead China's GDP

growth in the coming years. The technology boom in China has made it home to the second highest number of unicorns (technology startup with a valuation of over \$1 Billion). Almost 2 out of 10 unicorns worldwide are Chinese start-ups.



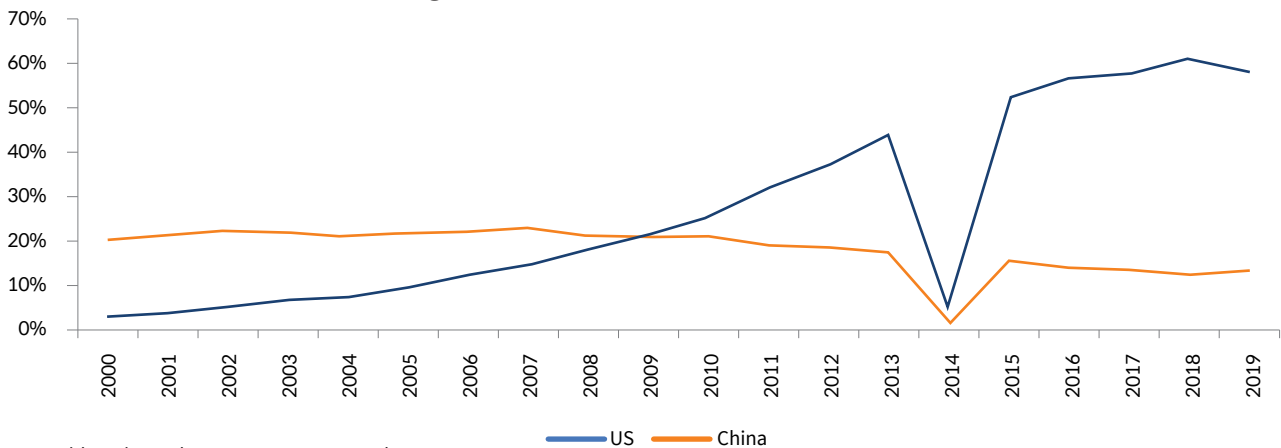
Source: World Bank Database, Data as on December 31, 2019

## Government investments in technology

The Chinese Government has been making considerable investments in Telecommunication, Electronics, Digital and education. China may be heading to be a global leader in innovations accounting for nearly 58% of the patents filed globally. The chart shows that US is the maximum % much greater than China. (Please check the data). The Chinese Government plans to ramp up spending in Research and Development by 7% every year as part of their 14<sup>th</sup> 5 year Plan (2021 – 2025). Aggregate

investments of around \$1 Trillion is planned in 2020 – 2025 to be spent on sectors like 5G, Cloud Computing, Internet of Things, Energy digitalization, Intelligent Transportation, Data Centres, Satellite Internet and Blockchain (China New Infrastructure Initiative). The focus is on achieving “major breakthroughs in core technologies,” including AI, semiconductors, cloud computing, and other key areas. As such technology is central in China's industrial policy as China

### Percentage Share of Global Patents - US versus China



Source: World Bank Database, Data as on December 31, 2020.

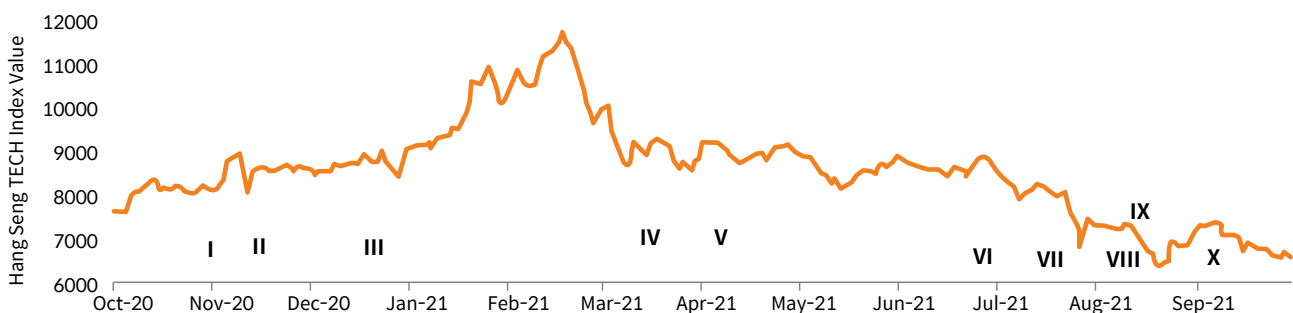
### Chinese technology market outlook

The potential market opportunity of Chinese companies is quite large. With the largest number of internet users in the world and rapid digital / online adoption by consumers, Chinese companies are looking at a huge opportunity set. The Tech companies are expected to invest more in upcoming technologies like Internet of Things (IOT), Artificial Intelligence (AI) etc. Key focus is expected to be on innovation.

For investors, Soft Tech may provide investment opportunity due to attractive valuations, Hard Tech on the other side is expected to find more government support and momentum. China Tech landscape is expected to grow significantly driven by rapid adoption of new technologies. The global market size for new technologies like IOT, AI, Robotics, Big Data, Blockchain, 5G, Drones, 3D Printing, Solar Photovoltaic Panels and nanotechnology is expected to grow from \$350 billion in 2018 to \$3.5 trillion in 2025 at a CAGR of nearly 40%.

### Regulatory actions and impact on stock prices

The tech sector in China has been in the news over the past year or so for the regulatory actions taken by the Chinese Government against tech companies, including some of the Big 5 Tech giants of China e.g. Alibaba, Tencent etc. The Chinese administration formed State Administration for Market Regulations (SAMR) in 2018. The agency is tasked with regulating areas such as market competition, monopolies, intellectual property, and drug safety. The SAMR regulations are aimed at reducing monopolistic, anti-competitive practices, improving data security, consumer rights and any detrimental effects on the society (e.g. online gaming addiction). Companies are already taking actions to cater to the regulatory concerns. While the intent of the regulations is similar to the US and EU, the pace and stringency of the regulatory actions, along with expectations of tighter control by the Chinese Communist Party has spooked investors. The share prices of these tech companies have crashed, reducing their market cap by \$1 Trillion (as on 30th September 2021).



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|--|--|
| I Ant Group IPO Suspended  | VI Cybersecurity probe launched against Didi just before its IPO                     |
| II SAMR announces guidelines to root-out monopolistic practices        | VII New regulations on Meituan to pay minimum wages to delivery staff                |
| III Anti-trust investigation against Alibaba                           | VIII Short Video apps Kuaishou & Bytedance face regulation for promoting bad culture |
| IV Tencent and Baidu fined by Antitrust Regulator                      | IX New data protection law passed on how companies collect & handle user information |
| V Alibaba fined \$2.9 Billion for breaking country's anti-monopoly law | X New restrictions on NetEase and Tencent to prevent online game addiction           |

Source: Bloomberg, 30.09.2021

## Hang Seng TECH Index

The Hang Seng TECH Index comprises of 30 large tech companies listed in Hong Kong Stock Exchange. It covers sectors from semiconductors, software, e-commerce, industrial automation and autonomous vehicles to Internet of Things,

healthcare IT, online travel, Fintech and gaming. Several of these sectors are focus areas of the Chinese Government as mentioned above. The index was launched in July 2020 but has values from 2015.

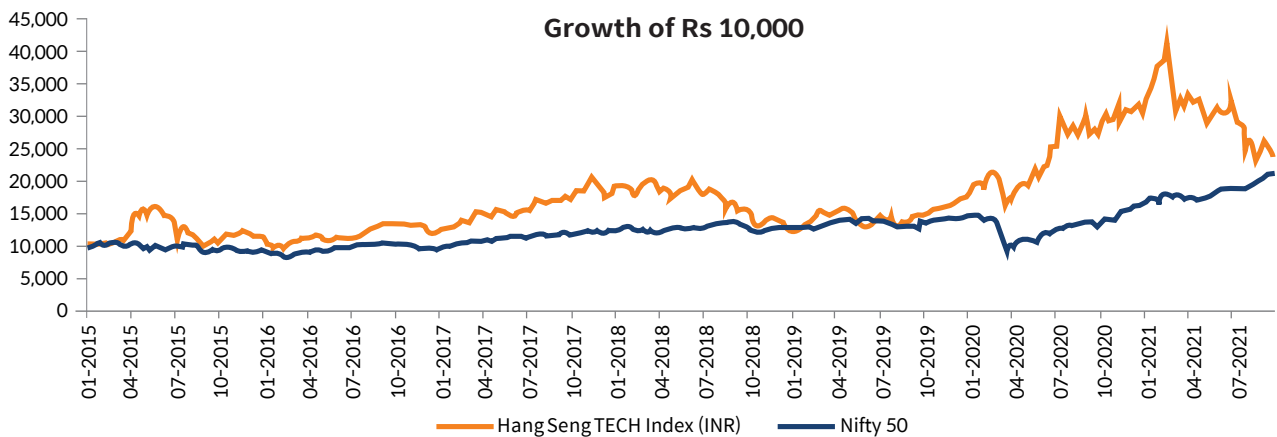
Particulars	Hang Seng TECH Index	BSE Sensex
Market Cap (as on 30th Sep 2021)	USD 1.8 Trillion	USD 1.56 Trillion
Revenue (CY 2020)	USD 463 Billion	USD 399 Billion
Cash Balance (as on 30th Sep 2021)	USD 149 Billion	USD 70.9 Billion
Net Profit (CY 2020)	USD 45 Billion	USD 36.3 Billion
R&D Expense (as on 30th Sep 2021)	USD 29 Billion	USD 4.25 Billion (for BSE 500)

Source: Bloomberg, Bombay Stock Exchange data, Department of Economic Affairs India. As on, 30th September 2021, unless mentioned otherwise.  
Disclaimer: Past performance may or may not be sustained as future.

## Performance of Hang Seng TECH Index

Hang Seng TECH Index has outperformed Nifty 50 since inception (2015), despite the big correction in 2021 after the regulatory crackdown by the Chinese Government. There is low correlation in returns of

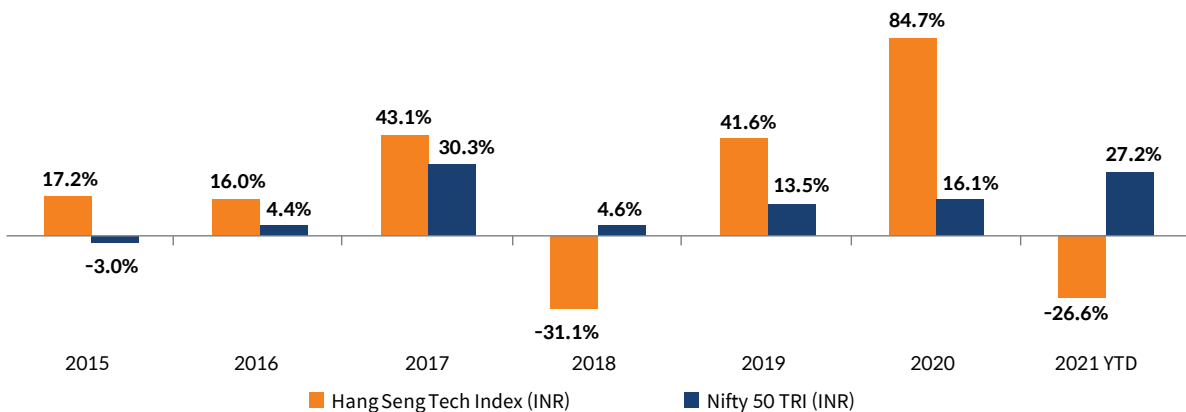
the two indices. Indian investors can add Hang Seng TECH Index to their portfolios to diversify portfolio risks across different market cycles.



Source: Investing.com (Hang Seng Tech Index, INR / HKD rates), NSE, Advisorkhoj Research. Period: 01.01.2015 to 30.09.2021.  
Disclaimer: Past performance may or may not be sustained in the future.

Hang Seng TECH Index outperformed Nifty 50 TRI in 5 out of the 7 calendar years since inception of the index. Years 2019 and 2020 saw significant outperformance

by the TECH index, while 2018 and 2021 (Chinese Government regulatory action) saw significant underperformance as compared to Nifty 50 TRI.



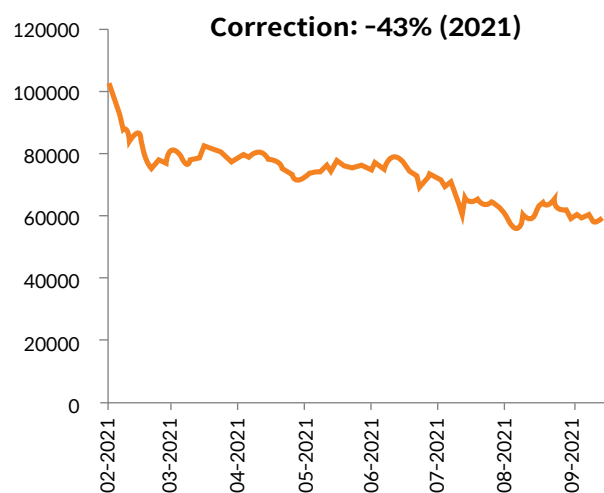
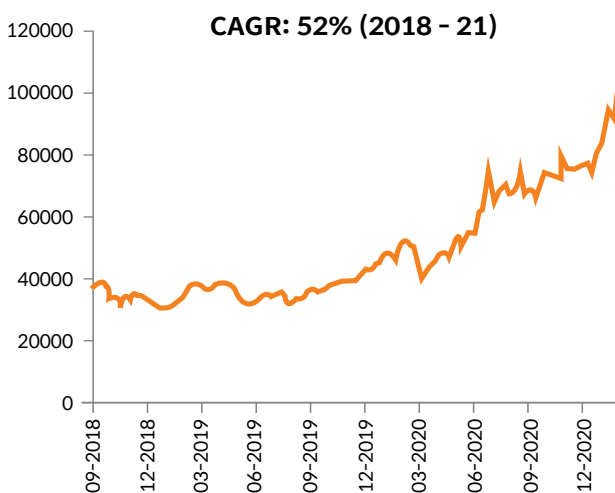
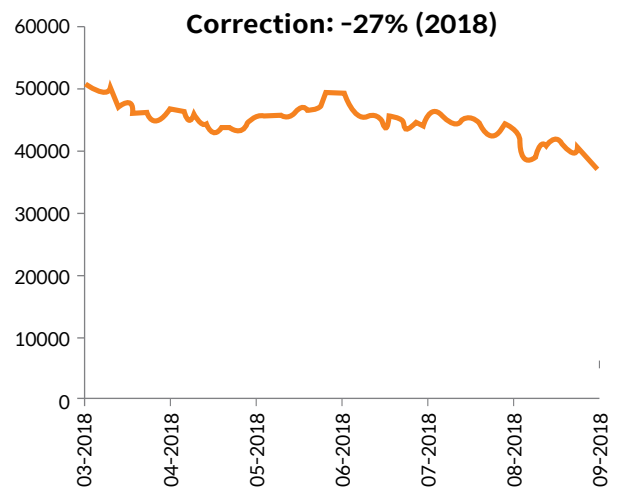
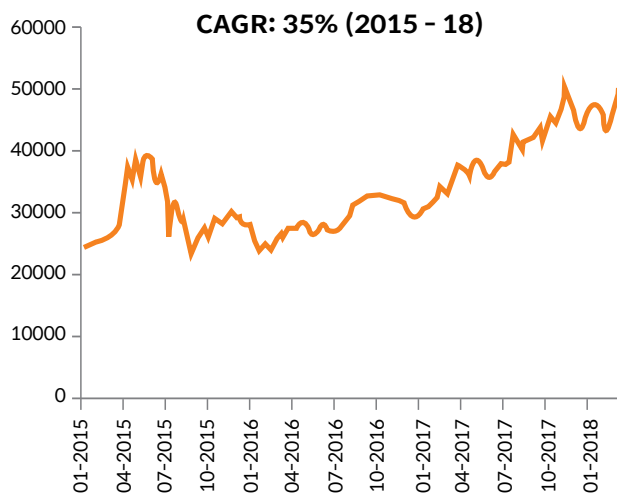
Source: Bloomberg data, Advisorkhoj Research (as on, 30.09.2021). Index returns are total returns (TRI). Disclaimer: Past performance may or may not be sustained in the future.

## Hang Seng TECH Index Performance – Pre and Post Regulatory Headwinds

Trade war and other issues in 2018 and Regulatory actions by the Chinese Government in 2021 triggered deep corrections in Hang Seng TECH Index to the tune of 27% and 43% respectively from the index tops. However, the TECH Index had given significant outperformance prior to these corrections. From 2015 to 2018 first quarter, the Hang Seng TECH Index in INR terms gave 35% CAGR

returns (see the chart below). After the 2018 correction, the Hang Seng TECH Index bounced back strongly giving 52% CAGR returns (see the chart below) from the last quarter of 2018 to the first quarter of 2021). Based on historical performance of the index we expect the index may bounce back strongly once it gets past the regulatory headwinds.

### Hang Seng TECH Index in INR terms (2015 to 2021 YTD)

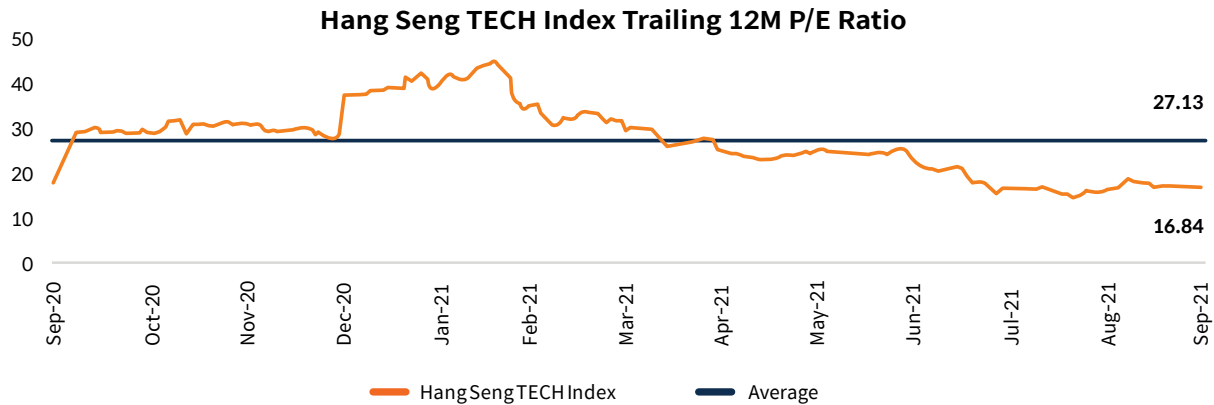


Source: Investing.com (Hang Seng Tech Index, INR / HKD rates), Advisorshoj Research. Period: 01.01.2015 to 30.09.2021.  
Disclaimer: Past performance may or may not be sustained in the future.

## Valuations may seem to be attractive

The recent correction in 2021 may have taken valuation of Hang Seng TECH Index into the attractive zone. The TECH index (PE multiple of 16.8X) is trading at 38% discount to its historical average (PE multiple of 27.2X). In fact, the Hang Seng TECH index is trading at a deeper discount (38%) to its historical valuations compared to

NASDAQ (trading 7% discount to its historical valuations). Though valuations may seem to be attractive at the present time, Investors should take investment decision according to their risk appetite and investment time horizon.



Source: Data as on Sep 30, 2021; period range from Sep 2020 – Sep 2021, considered. 12M Trailing P/E's are based on Bloomberg. The index returns are in Total Return Variant. Disclaimer: Past performance may or may not sustain in future.

## Conclusion

Mirae Asset Mutual Fund is launching an exchange traded fund (ETF) and ETF FOFs which will track the Hang Seng TECH index. Investors can get exposure to the Top 30 technology centric companies of Greater China through this ETF. Investors can get exposures to new age technology themes like Artificial Intelligence, Cloud Computing, Internet of Things etc; themes which are currently not available in the publicly listed universe in India. The Hang Seng TECH Index companies may benefit from the Chinese Government's initiative and investments to promote digitalization, hard Tech and R&D significantly,

though we may see headwinds for soft tech in near future. Valuations may seem to be attractive at present and the long-term growth potential may be considered to be very promising. Hang Seng TECH Index (INR) gave 15.8% (as on 29th Oct 2021) since inception (2015). While the TECH Index. The product is volatile (as seen during the 2018 and 2021 corrections). Investors should invest according to their risk appetite. Investors should consult with their financial advisor and mutual fund distributor if they need help in understanding their risk appetites and the risk profile of their investments.

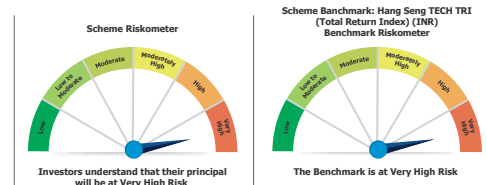
**Mirae Asset Hang Seng TECH ETF** (An open-ended scheme replicating/tracking Hang Seng TECH Total Return Index)

### PRODUCT LABELLING

Mirae Asset Hang Seng TECH ETF is suitable for investors who are seeking\*

- Returns that are commensurate with the performance of Hang Seng TECH Total Return Index, subject to tracking error and foreign exchange movement
- Investments in equity securities covered by Hang Seng TECH Total Return Index

\*Investors should consult their financial advisers, if they are not clear about the suitability of the product.



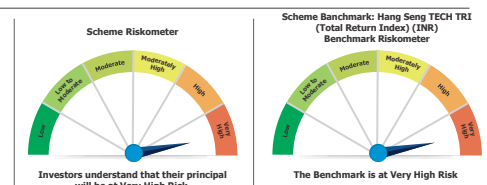
**Mirae Asset Hang Seng TECH ETF Fund of Fund** (An open-ended fund of fund scheme predominantly investing in units of Mirae Asset Hang Seng TECH ETF)

### PRODUCT LABELLING

Mirae Asset Hang Seng TECH ETF Fund of Fund is suitable for investors who are seeking\*

- To generate long term capital appreciation/income
- Investments predominantly in units of Mirae Assets Hang Seng TECH ETF

\*Investors should consult their financial advisers, if they are not clear about the suitability of the product.



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The views, facts and figures in this document are as of 31<sup>st</sup> October, 2021 unless stated otherwise.

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