INVESTING IN CHINA: RIDING THE DRAGON

Value Partners
Investing through discipline

OXFORD METRICA

ABOUT OXFORD METRICA

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Our advisory services are anchored on evidence-based research in risk and financial performance.
Our work includes statistical analysis and index construction for banks and insurers, risk and performance analytics for asset managers, due diligence support in mergers and highly customised services for corporate boards.

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FOREWORD

Dr Rory Knight is Chairman of Oxford Metrica and a member of the Board of the Templeton Foundations. He was formerly Dean of Templeton, Oxford University's business college. Prior to that Dr Knight was the vize-direktor at the Schweizerische Nationalbank (SNB) the Swiss central bank.

Oxford Metrica is pleased to present, in partnership with Value Partners of Hong Kong, this timely and detailed report on China's financial prospects – a report rendered even more relevant given the current financial situation internationally. Last year our theme was "Dancing with the Dragon", a metaphor for the exciting if volatile nature of investing in China – this year we have shifted to "Riding the Dragon" suggesting a disciplined approach to staying in control of investment in China.

The Covid-19 (CV-19) pandemic has plunged the world into its deepest crisis yet, far deeper than the crisis triggered by the SARS epidemic and also, arguably, by the global financial crisis of 2008. Yet one day, though perhaps hesitantly at first, growth will resume, the mood will lift, and investors will once again begin to cast their eyes around looking for promising new investment opportunities across the world. Then, we firmly believe, their eyes will light on the place which was the first to fall victim to the virus and which will be the first to emerge from its shadows: China. That is the overriding message of this report.

The report is organised as six sections. Firstly, some comments and observations on CV-19 are offered. Secondly, a performance review highlights the recent volatility and recovery. Thirdly, it dispels the five myths about China: (1) slowing growth is narrowing opportunity (2) Sino-US trade tensions will dampen innovation (3) market restrictions limit returns and liquidity (4) idiosyncratic investor behaviour in China inhibits investment, and (5) Chinese companies ignore non-financial dimensions. Then follows a section examining the rapid increase in Chinese listings. In the penultimate section we identify likely future investment themes. The report concludes with a clear, detailed analysis of China's three major stock exchanges and their plethora of share classes.

It has been predicted that by 2027 China will be the world's largest economy. Every four years it is growing by an amount equal to the GDP of the UK - a new UK every four years! It is a nation bristling with opportunity where investing will at times feel like riding the dragon.

We hope that all those who study it will find this report both stimulating and enlightening.

Dr Rory Knight
Chairman
Oxford Metrica

PREFACE

As a practitioner of value investing in the Greater China region for more than three decades, I believe strongly in the China story, although we can expect occasional setbacks along the way. The current turmoil caused by the CV-19 is a serious exogenous shock or Black Swan event. However unwelcome the circumstances, we keep our eye on the long-term horizon and remain confident in China's future. China has implemented the broadest set of counter-cyclical policies to attenuate the effects of the crisis on the Chinese economy. These include monetary and fiscal policy measures in combination with a massive industrial stimulation policy focused on very specific sectors of the economy including infrastructure and technology. China demonstrably has the capacity to execute its policies both in terms of liquidity and monetary policy headroom. It sends out a clear signal that the Chinese government remains committed to a pro-business policy stance.

In the next ten to fifteen years, despite the current setbacks, we believe China will continue its advance to become the world's largest economy. The growth engines are changing. Whereas China used to be an export-driven economy, in recent years, its growth has been increasingly driven by domestic consumption. The policy response to the crisis will accelerate China's current growth vector even more powerfully and rapidly.

China's continued growth and transformation presents huge opportunities for investors globally. MSCI's inclusion of domestic Chinese A-shares in its influential Emerging Markets Index last year and its subsequent quadrupling of the inclusion factor has elevated China's stature in the international capital markets. The A-share market is already second only to New York in terms of trading volume and value. There is much room for growth with foreigners owning less than 4% of the domestic A-share market compared to the 25% to 35% typically seen in emerging markets.

China-related stocks are emerging as an important and separate asset class in their own right. I hope this report will provide a useful compass for navigating this vibrant market.

Dato' Seri CHEAH Cheng Hye
Co-Chairman and Co-Chief Investment Officer
Value Partners Group

"Dato' Seri CHEAH Cheng-Hye is Co-Chairman and Co-Chief Investment Officer of Value Partners Group. He is in charge of the Group's fund management and investment research and he sets the Group's overall business and portfolio strategy. In 2007, he led Value Partners to a successful listing in Hong Kong, making it the first asset management company listed in the city. He has over 30 years of investment experience and is considered a leading practitioner of value investing in Asia. Prior to founding Value Partners, he worked at Morgan Grenfell Group in Hong Kong and had a stint as a financial journalist.

Dato' Seri CHEAH currently serves as an Independent Non-executive Director, Chairman of Investment Committee and Cash Market Consultative Panel of Hong Kong Exchanges and Clearing Limited, a member of the Hong Kong University of Science and Technology ("HKUST") Business School Advisory Council, Convenor of Advisory Council for the Malaysian Chamber of Commerce (Hong Kong and Macau), a member of the Hong Kong Trade Development Council Belt and Road & Greater Bay Area Committee, as well as a Fellow of the Hong Kong Management Association.

In August 2016, Dato' Seri CHEAH was conferred Darjah Gemilang Pangkuan Negeri ("DGPN"), one of the highest civil honours granted by the state of Penang in Malaysia to recognize exceptional individuals. The DGPN award comes with the title of "Dato' Seri". In 2013, he was conferred Darjah Setia Pangkuan Negeri ("DSPN") with the title of "Dato'" and was named an Honorary Fellow of the HKUST."

COVID-19: THE CHINA PARADOX

The impact of CV-19 presents us with several paradoxes. The numbers of infections and deaths, though of course deeply distressing individually, are low in comparison to the total global population, and most victims of the virus suffer only relatively mild symptoms and recover quickly. Nevertheless, the economic and financial consequences of the outbreak, due to the rising tide of panic or the sweeping measures adopted, whether rightly or wrongly, by governments, have been devastating. Not just schools and businesses but whole industries, cities and countries have been shut down. Currencies have fallen, forecasts of growth have been savagely slashed, and markets have gone into free fall.

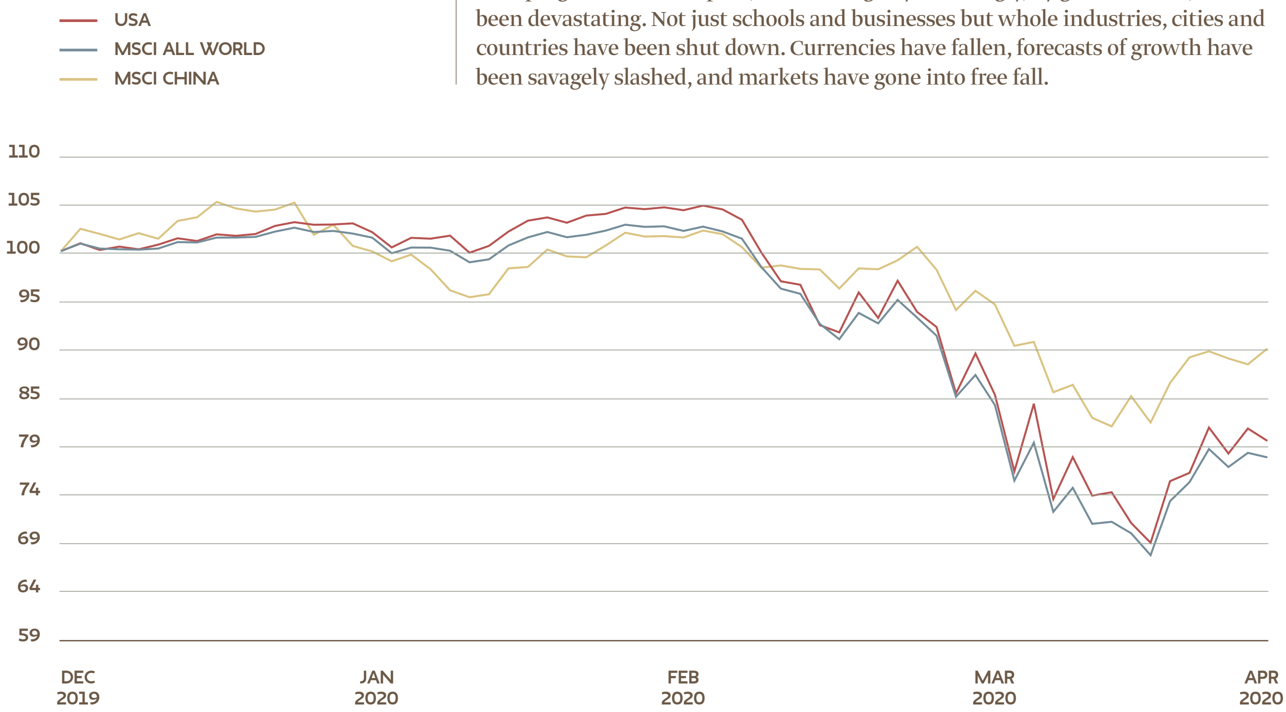


FIGURE 1: Equities performance Q1 2020

But in China - again paradoxically given that it has been the centre of the virus's worst ravages - a brighter picture is now beginning to emerge. Thanks to the stringent measures imposed by the government the rate of new infections has slowed dramatically and recovery rates are on the up. On the 6th April the Chinese government announced the first day of no new deaths from CV-19.

Alongside these welcome developments the first green shoots of economic recovery are also appearing. Business resumption rates are picking up.

China has implemented an extremely broad set of counter-cyclical policies to attenuate the impact of the crisis on the Chinese economy. These include monetary and fiscal policy measures in combination with a massive industrial stimulation policy focused on highly specific sectors of the economy such as infrastructure and technology. China has the capacity to implement its policies both in terms of liquidity and monetary policy. Examples of the monetary and fiscal measures taken include reductions in the prime rate and other rates for SMEs and agribusinesses; increased bank loan quotas and loan growth targets for SMEs; reduced VAT (zero-rated, for instance, in Hubei province) and a combination of waiving, reducing and delaying tax payments for most businesses. China's interest rates are higher than those of the rest of the world, which gives the People's Bank of China considerably more leeway to implement these policies.

The Chinese government is also able to intervene with a sharply focused industrial policy. Examples include increased Ministry of Finance loans to fund infrastructure projects; reduction of minimum deposit requirements for mortgages to support the property sector; cash subsidies for new cars to stimulate the

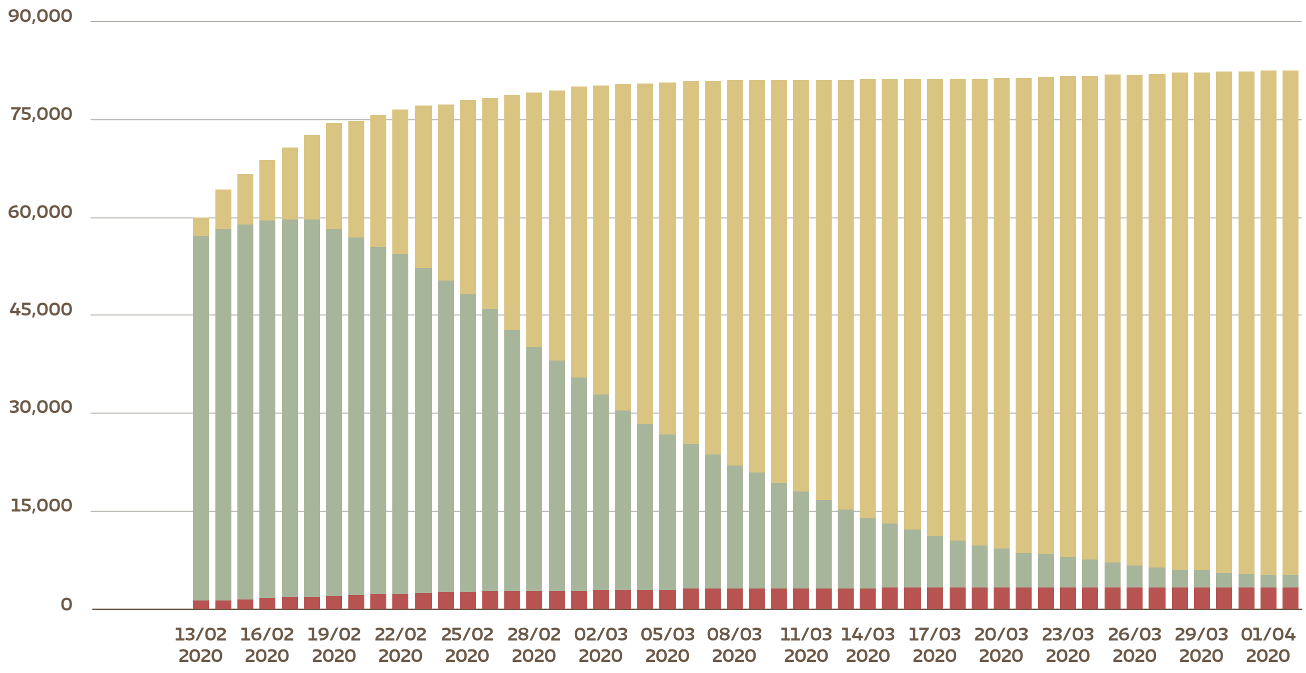


FIGURE 2: China CV-19 cumulative cases

automotive industry; waiving toll fees, reducing social security and tax payments, electricity, oil and gas prices and the cost of rentals. Furthermore, commercial and construction sectors use of 5G is being strongly promoted in order to propel the economy back to growth.

Figure 1 illustrates the resilience of the Chinese equity markets to these shocks compared to other markets. Chinese stock prices were down 10% for the quarter ended 31 March, in comparison to the 20% lost in the US markets. The Chinese markets suffered less, with a maximum draw-down of 20% against 30% for the US, and their recovery has been faster. The US markets suffered a loss equivalent to the whole of 2019 gains whereas the Chinese markets lost little over two-months' worth of their 2019 gains. This resilience is even more impressive when one considers that the returns quoted are in dollars and that currency movements damaged the Chinese returns slightly. The world average as represented by the MSCI ACWI were even slightly behind the US. Markets are relatively sanguine about China's recovery, and current prices will surely be seen by many as a buying opportunity as China leads the world out of the slowdown. The next section examines the performance of the Chinese markets over the last decade.

Figure 2 shows how the number of active cases has diminished and that the vast majority have happily recovered, suggesting that, barring a resurge, China may be through the worst. This is a very encouraging picture for Europe and North America as they reach their peak infections. Hopefully the recovery there will follow China's experience of a recovery.

Further corroboration of the recovery is reflected in Figure 3 which reports the CICC's business productivity tracker index. The usual drop-off around the lunar new year (LNY) is similar to the previous two years, and there is evidently a slower recovery due to the lockdown. However, by the end of the quarter productivity was back to approximately 95%. Paradoxically, although the movement of people around the LNY holiday contributed to the outbreak, the economic impact was much diminished as it occurred in the quietest time of the year, allowing a faster recovery.

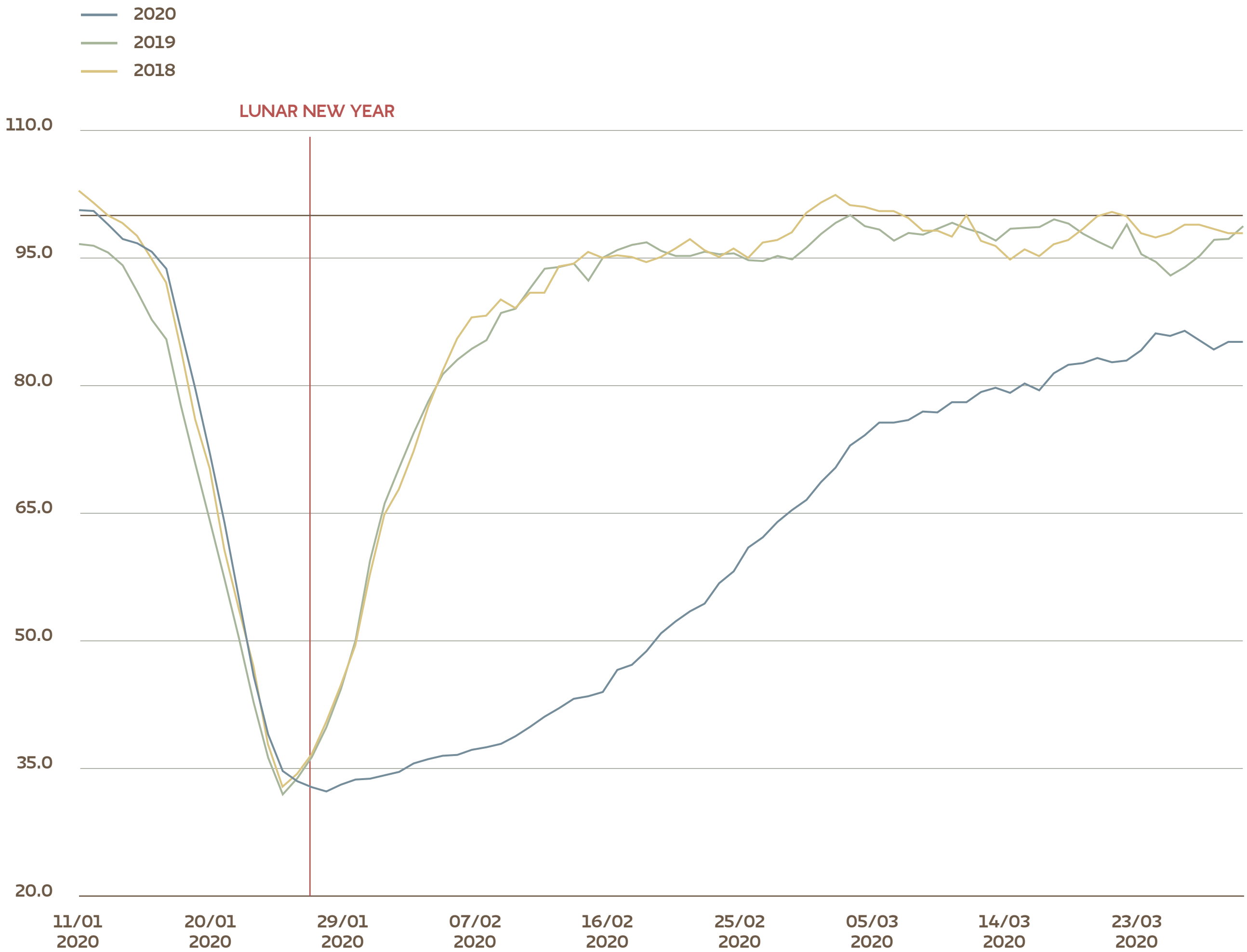


FIGURE 3: Business tracker graph

Capital inflows into Chinese stock markets are booming. Both China's ability to control the yuan exchange rate and to take counter-cyclical steps, in the context of a generally depressed international bond market, to boost growth and increase liquidity remain undiminished. Alongside its extensive (though perhaps now less secure) foreign investments, China still sits on enormous domestic reserves. It offers a consumer market of vast future potential. But perhaps China's greatest strength lies in the discipline, determination and resilience of its people.

Traditionally, but superficially, Chinese stocks have been seen as risky, opaque and inaccessible. But, again paradoxically, even as the rest of the planet remains convulsed by the grip of the CV-19 pandemic, China may be seen as a safe haven by investors. China is set once more to take up its place as the workshop of the world, a key engine of global growth, the place where the bulk of supply chains meet.

It is important to bear in mind China's underlying long-term record of returns, and it is this record to which the next section is devoted.

RISK AND RETURN IN CHINA

In the light of the recent impact on China of the CV-19 outbreak, it is instructive to review how investment in China performed over the last ten years for the foreign investor. At the start of the last decade the Chinese economy was enjoying double digit growth in its GDP and continued to show significant growth over the next ten years, albeit at a slower rate. The most recent annual GDP growth rate is 6.6%[1]. Analysing the performance of the three on- and offshore Chinese exchanges shows that during the last decade has been a roller coaster for returns, with all three broad market exchanges experiencing periods of over- and under-performance. As Figure 4 below indicates, the Shenzhen Composite Index out-performed both the Hang Seng and Shanghai Composite indices over the decade, generating 40% in US$ terms, whereas the Hang Seng only generated about 28% and the Shanghai Composite in fact lost more than 8%. These results highlight the importance of having an active approach when investing in Chinese equities and taking advantage of mainland investment opportunities.

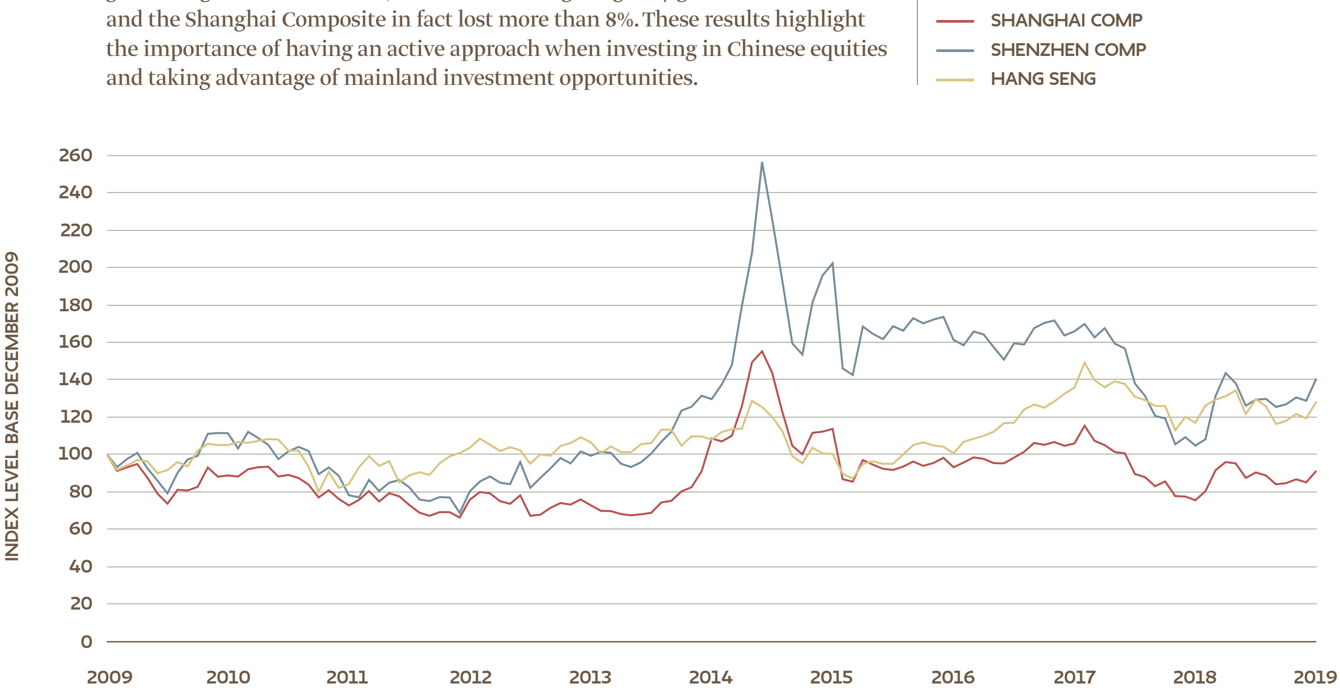


FIGURE 4: China equities (US$) 2010 - 2020

In 2019 performance was positive across all three major Chinese bourses, rebounding from underperformance in 2018 when geopolitical tensions between China and the US dragged it down. Although tariffs had a damaging impact on trade between the US and China, the mainland exchanges both generated returns of over 20% in US$ terms, with the Shenzhen Composite returning over 34%. 2019 will also be remembered for the large number of political protests in Hong Kong, which played a significant role in dragging the performance of the Hang Seng below its mainland peers. Figure 5 presents 2019 performance of both the onshore and offshore broad market indices, again highlighting the benefits of access to Chinese mainland investment opportunities.

1 See page 28 for source.

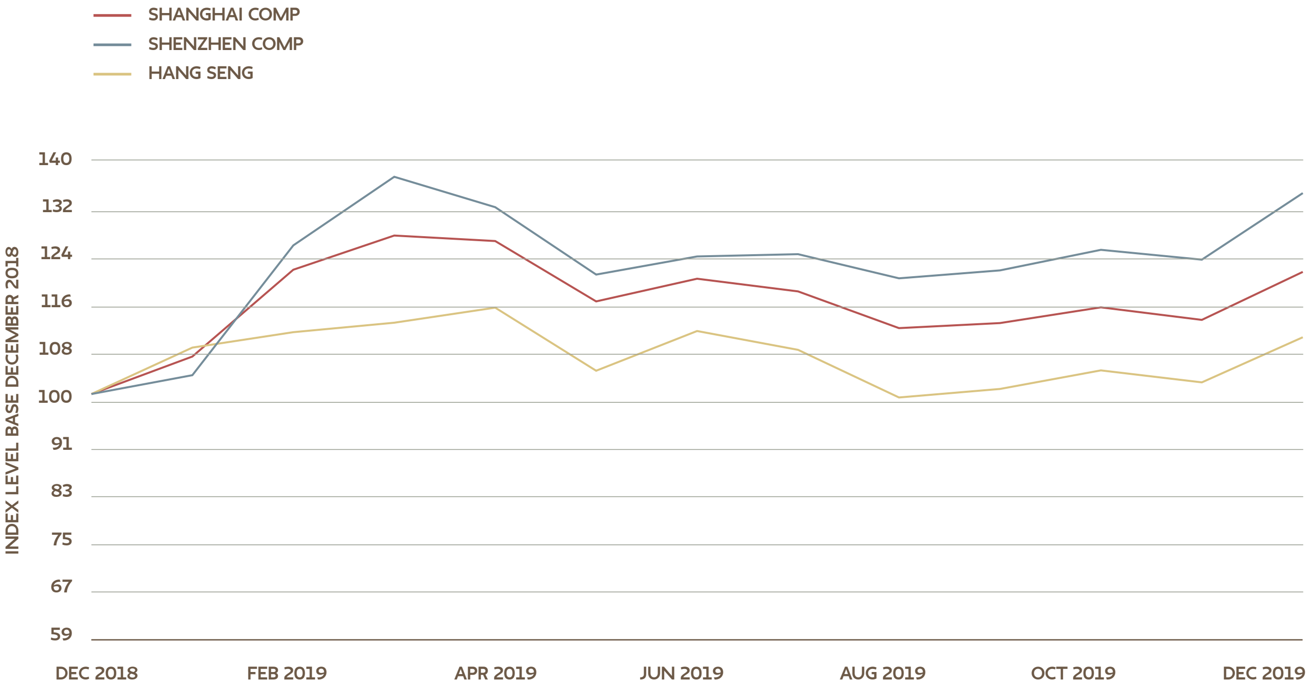


FIGURE 5: China equities (US$) 2019

Table 1 below provides a breakdown of risk and return for the Shanghai Composite, Shenzhen Composite and the Hang Seng Index respectively. The damaging impact that the recent CV-19 outbreak has had on the Chinese stock market is clearly evident, with all three major indices showing negative returns in the year to date. As mentioned in the previous section this is a recovering situation, the losses are far less than for other countries.

USD	SHANGHAI COMPOSITE	SHENZHEN COMPONENT	HANG SENG
FIRST QUARTER 2020	-11.3%	-4.9%	-15.9%
2019 RETURN	20.8%	34.2%	9.7%
DECADE RETURN	-8.8%	40.6%	28.3%
DECADE RETURN ANNUALISED	-0.9%	3.5%	2.5%
STANDARD DEVIATION 2019	20.7%	27.0%	19.1%
STANDARD DEVIATION DECADE	22.8%	28.0%	17.9%
10 YEAR CORRELATION WITH S&P	0.45	0.36	0.69

TABLE 1: Comparative risk and return statistics

Regarding risk, Table 1 presents the standard risk deviation for 2019 as well as the annualised standard deviation for the decade. As one would expect, volatility in the Chinese markets is significantly higher than in the domestic US market. The S&P 500 Index by contrast only experienced volatility of 11.2%[2] on average annually over the last decade. Furthermore, the Shanghai and Shenzhen markets suffered a standard deviation in returns greater than that of Hong Kong over the past ten years, which correlated more closely with the S&P 500 over the same period.

Although all three markets involve risks and have a volatile record of returns, international investors should view these in relation to the Chinese home market and set them against the benefits of diversification that investment in China provides. Figure 6 presents a rolling correlation relative to the S&P 500 Index between 2010 and 2019. It provides evidence that there are potential diversification benefits to US investors in allocating capital in Chinese markets. On average, the correlation of all three markets is 0.42 with the S&P, with Shenzhen on average exhibiting the lowest correlation of 0.26.

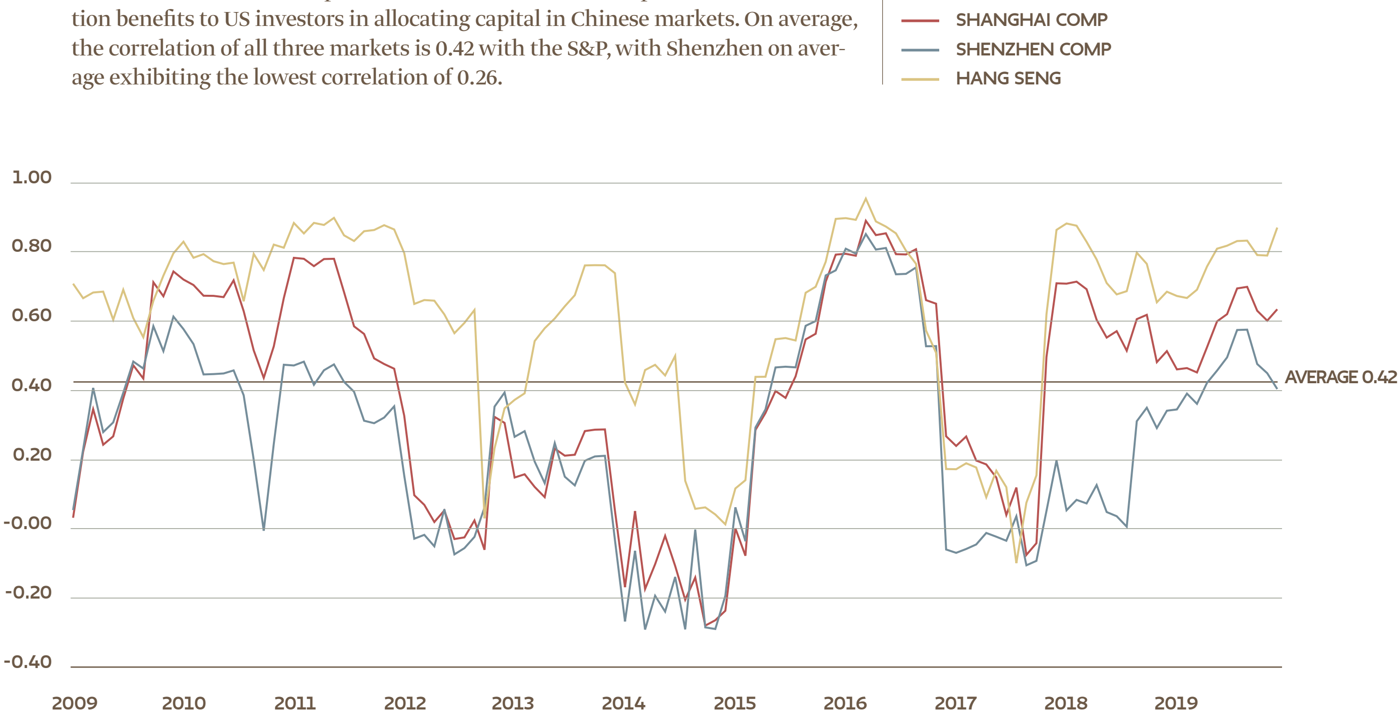


FIGURE 6: Rolling correlation with the S&P 500

The benefits of active management when taking advantage of mainland investment opportunities are further underlined when one bears in mind the 'efficient frontier' achievable by optimising allocations between Chinese and emerging market assets in US$ terms. The efficient frontier represents the best combination of assets to maximise return for a given level of risk. Figure 7 below shows the historical efficient frontier for five markets: the Shanghai Composite, the Shenzhen Composite, the Hang Seng, the MSCI EM and the MSCI BRICS. It reveals that the most efficient portfolio allocates some 88% to the Shenzhen Composite Index as opposed to only some 12% in the MSCI EM, highlighting the fact that investing via an emerging market fund might not be the best course. The most efficient portfolio is the tangency point to the curve illustrated in Figure 7 which has the largest Sharpe ratio. If, on the other hand, the overriding concern is downside protection, and an investor consequently chooses to invest in China through a minimum variance portfolio (MVP), roughly 47% of the portfolio should be split between mainland and offshore Chinese markets and 53% in the MSCI EM. Table 2 below, shows the asset allocations for both approaches. The MVP is the portfolio with the lowest variance on the efficient frontier. It is clear that, whichever approach is pursued, international investors should pursue an active approach when assessing investment opportunities in China.

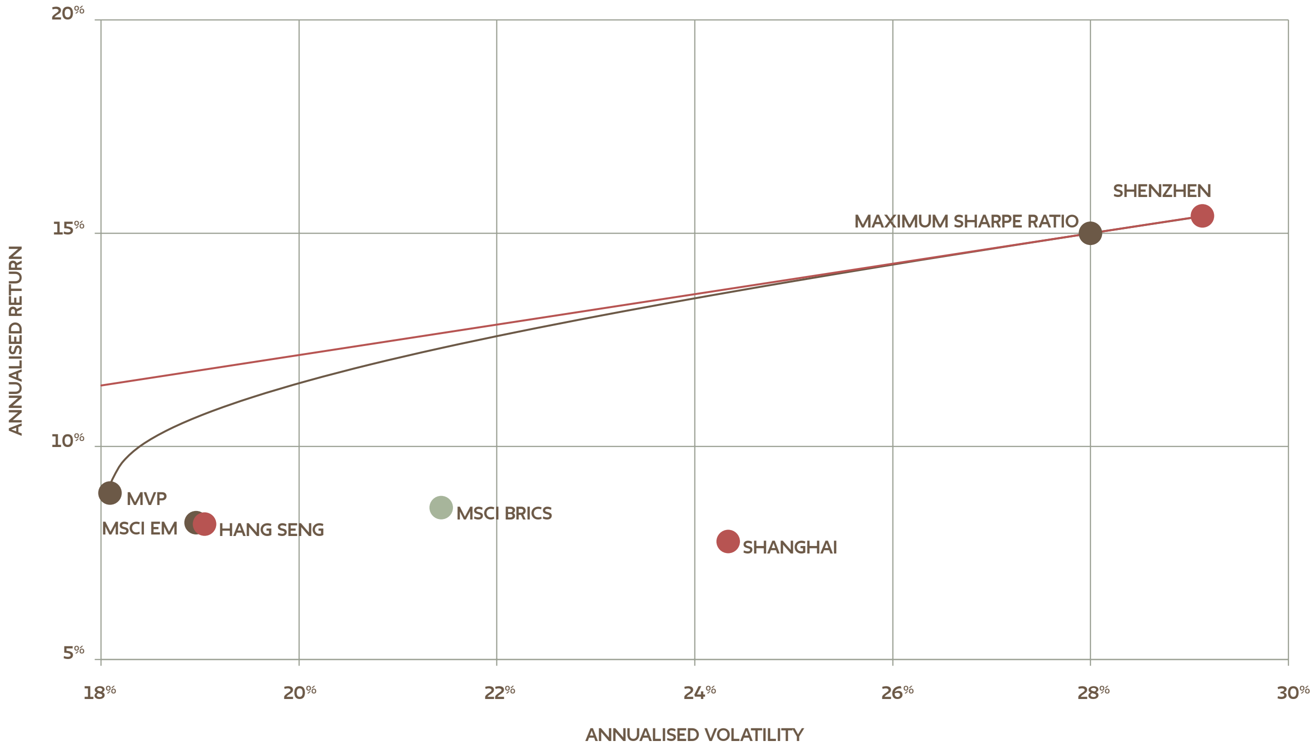


FIGURE 7: China Efficient Frontier (10 year)

PORTFOLIO (WEIGHTS)	MAXIMUM SHARPE	MINIMUM VARIANCE
SHANGHAI COMPOSITE	0.0%	20.8%
SHENZHEN COMPOSITE	88.0%	0.0%
HANG SENG	0.0%	26.1%
MSCI BRICS	0.0%	0.0%
MSCI EM	12.0%	53.1%
TOTAL	100%	100%

TABLE 2: Optimised weights on the Efficient Frontier

FIVE INVESTMENT MYTHS ABOUT CHINA

MYTH 1: SLOWING GROWTH IS NARROWING OPPORTUNITY

China's economic growth has long been a source of international wonder. For many years China was the nation where sustained double-digit annual growth was the norm. Growth even touched 20%. But such exponential growth cannot last forever. Slowing growth is to be expected in an economy the size of China and has gradually slowed to single digits in the past decade[3] - nonetheless still an impressive figure for investors.

Instead of quantity China's future growth will turn on quality. The new approach will involve improving the national standard of living, alleviating poverty and strengthening industrial chains. A broad-ranging plan to regulate industrial supply and root out corruption is yielding positive results. Creating further investment opportunities, a master-plan has been unveiled to develop the economy in a more structured way and achieve synergies among nearby cities to form economic clusters. Examples include the Beijing-Tianjin-Hebei region, the Yangtze Economic Belt, and the Guangdong-Hong Kong-Macao Greater Bay Area - the last involving an ambitious strategic plan which aims to improve coordination, connectivity and productivity in industries from primary to tertiary levels. Figure 8 presents a map of the Bay Area, an area spanning 56,000 square kilometers that includes Hong Kong, Macau and nine other municipalities on the mainland.

FIGURE 8: China's Greater Bay Area

China's leadership has stated that the market will be the decisive force in the future. This does not mean that the country is turning its back on 'socialism with a Chinese face'. But it clearly demonstrates that China's leaders and foreign investors are at one in their belief in how the Chinese market should operate.

MYTH 2: SINO-US TRADE TENSIONS WILL DAMPEN INNOVATION

China-US Trade War has become part of the popular lexicon in the past two years. But the bilateral trade talks are more than about agreeing a new target for higher US exports. The picture is more complicated, involving arguments over spying allegation, technology development and industrial innovation.

The Phase-One Trade Deal, now signed off, which unveiled the rollback of some tariffs, has brought about an initial détente between China and the US. As well as benefiting the Chinese economy (see Table 3 below), it will help stabilise the broader trade environment. It sends out the message that the two superpowers want to maintain a regular future dialogue and strengthen the framework for managing the bilateral relationship. It has lifted investor confidence across the Asian region and given a boost to many of its export businesses.

SCENARIO	AMOUNT OF GOODS (BN USD)	TARIFF	ESTIMATED IMPACT TO CHINA'S GDP	2020 CONSENSUS CHINA GDP GROWTH:6%
CURRENT SITUATION	250	25%	ESTIMATED ACTUAL IMPACT: -0.25%	ACTUAL 2019 Q3 GDP: 6%
PHASE-ONE DEAL JANUARY 2020	130	7.50%	ESTIMATED POTENTIAL IMPACT: -0.04%	ESTIMATED: 5.96%
WORST SCENARIO: FULL-BLOWN TARIFF	550	30%	ESTIMATED ADDITIONAL -0.37%	ESTIMATED: 5.6%

TABLE 3: Estimated impact of trade deals

Geopolitical uncertainties remain, however, with investors alert not only to the operational risks involved in executing the tariff agreement but also the potential pitfalls in international relations. Nonetheless, despite mounting risks and challenges at home and abroad, China remains the undoubted heavyweight in the world of emerging markets, especially with respect to its Asian neighbors. Getting the US-China relations right, with due attention to broader diplomatic relations, will be crucial not only to the two superpowers themselves but all those venturing into Asian and other emerging markets.

Table 3 sets out the estimated impact of various trade-deal scenarios on China's GDP and the attendant impact of the forecasts on growth rates under each. The consensus forecasts suggest that, even under the worst scenario of a 30% tariff barrier, growth will slow only slightly.

MYTH 3: MARKET RESTRICTIONS LIMIT INVESTMENT RETURNS AND LIQUIDITY

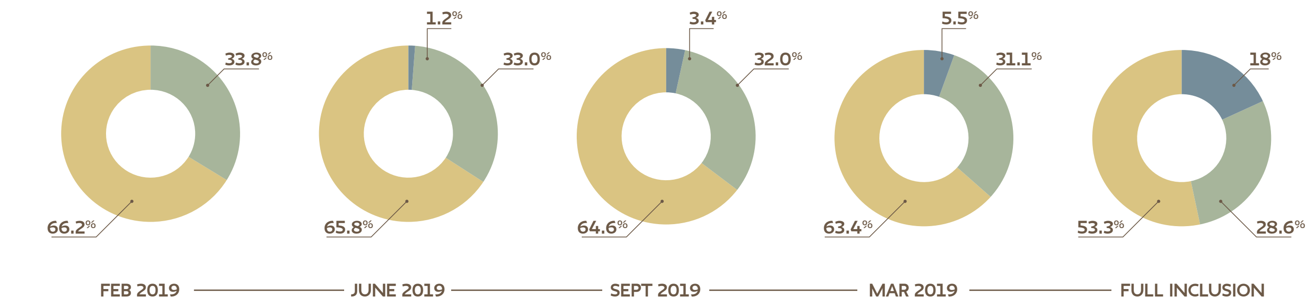
For many years China's partially-closed capital markets were a no go area for the faint-hearted. It is undeniable that China's multiple capital quota schemes restricted both inward and outward capital flows. Foreigners, even billion-dollar banks and asset managers, faced major hurdles in trying to gain access.

However, Chinese regulators have been reviewing the policies to ease the lot of overseas investors. A notable example includes the introduction of the Mainland-Hong Kong Stock and Bond Connect Programme, a cross-border scheme that allows international investors to trade onshore assets via the Hong Kong bourse.

Furthermore, the inclusion of Chinese A-shares in globally-tracked indices has important symbolic significance for China's equity markets. In June 2017 the

MSCI set a precedent by including China A-shares in its flagship emerging market indices, as shown in Figure 9 below. Another global index provider, FTSE Russell, followed suit and included its own additions in 2018. In consequence, an increasing number of institutional investors are going to be investing in China, either actively or passively in accordance with their respective benchmark indices. In response, Chinese authorities have introduced measures to facilitate capital inflows, including the abolition of long-standing quotas.

FTSE INCLUSION AGENDA: WEIGHTING A-SHARES IN THE FTSE RUSSELL EMERGING MARKET INDEX



MSCI INCLUSION AGENDA: WEIGHTING A-SHARES IN THE MSCI EMERGING MARKET INDEX

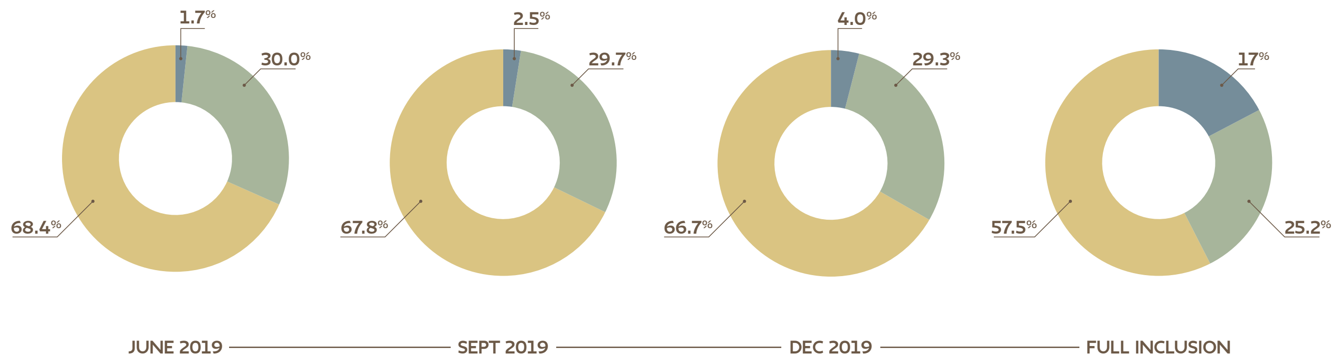


FIGURE 9: A-shares inclusion plans by MSCI and FTSE

For instance, in September 2019, China's foreign exchange regulator announced plans to scrap two similar capital control systems, the Qualified Foreign Institutional Investor (QFII) Programme, and its Renminbi equivalent, the Renminbi Qualified Foreign Institutional Investor (RQFII) Programme. Both schemes acted as vital conduits for cross-border investment by overseas institutions. Since the reforms, an additional 400 institutional investors from 31 countries and regions[4] have invested in China's financial markets. In future, foreign investors will only have to register when they make investments in order to remit capital. These reforms, when finalized in five years, will open the gates to overseas investors, allowing steady and constructive foreign capital flows into what will then be the world's second largest equity market.

MYTH 4: IDIOSYNCRATIC INVESTOR BEHAVIOR IN CHINA HINDERS INVESTMENT

Chinese retail investors account for about 80% of the turnover[5] in the mainland's stock market but only take out a tenth of its returns. Many Chinese retail investors prefer familiar investments and typically hold highly concentrated portfolios. Others tend to be driven by emotion. News or rumors on social media – often with no relevance to company fundamentals – can lead to knee-jerk decisions, which can collectively exercise a significant impact on the market. As a result, Chinese retail investors either hold onto losing assets for too long or sell assets too soon when they have made some gains. Paradoxically, the unique character of retail investment in China actually presents market inefficiencies that active managers can exploit and translate into alpha creating opportunities.

To date, key global brokers have paid too little attention to onshore Chinese companies. As of November 2019, the Mainland-Hong Kong Stock Connect Programme included more than 1,200 China A-share companies open to foreign investors but leading global brokers conducted research into only 300 of these[6]. There is also a marked discrepancy in foreign representation among the mega-cap and second-tier large-cap companies. The latter group therefore potentially presents major value opportunities for the future. That said, the benefits may take some time to fully emerge given the gradual pace of change in the onshore market.

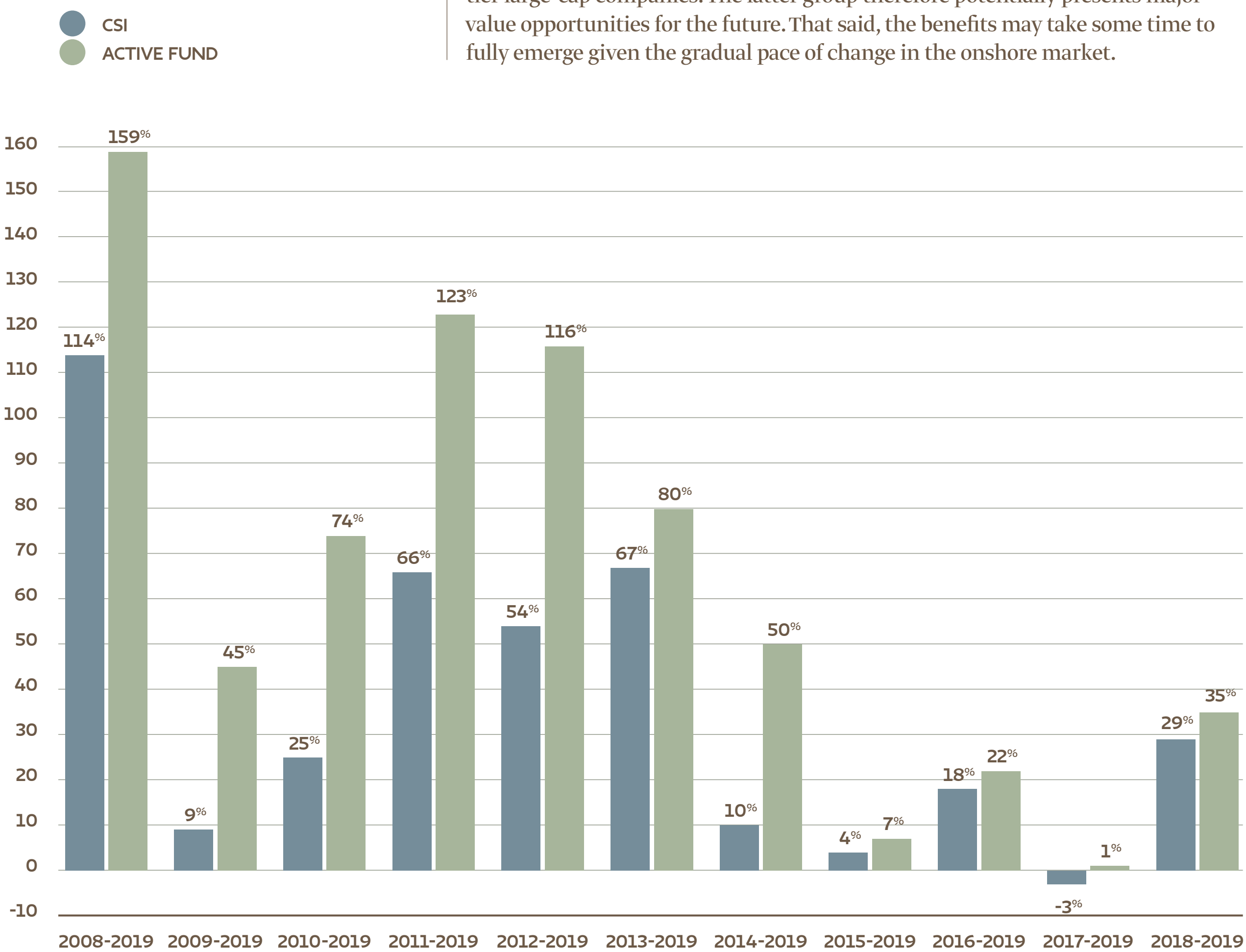


FIGURE 10: Active vs passive investing

To take advantage of the opportunities created by the recent rule changes, an agile approach will be essential. These market inefficiencies offer the most fertile ground to active discretionary managers able to identify under-researched companies on the ground. As Figure 10 above shows, active managers have a ten-year track record of outperforming the CSI 300 Index.

MYTH 5: CHINESE COMPANIES IGNORE NON-FINANCIAL DIMENSIONS

Environmental, social and governance (ESG) factors lie at the heart of sustainable development, and are now keywords in the global investment lexicon. Indeed, reporting ESG metrics is now a regulatory priority in many mature markets. However, the quality and level of ESG engagement and reporting in China have long been a concern to international institutional investors worried about reputational exposure. In particular, these investors have raised concerns over corporate governance practices and shareholder protection in the wake of last year's corporate defaults and forced bank seizures in China.

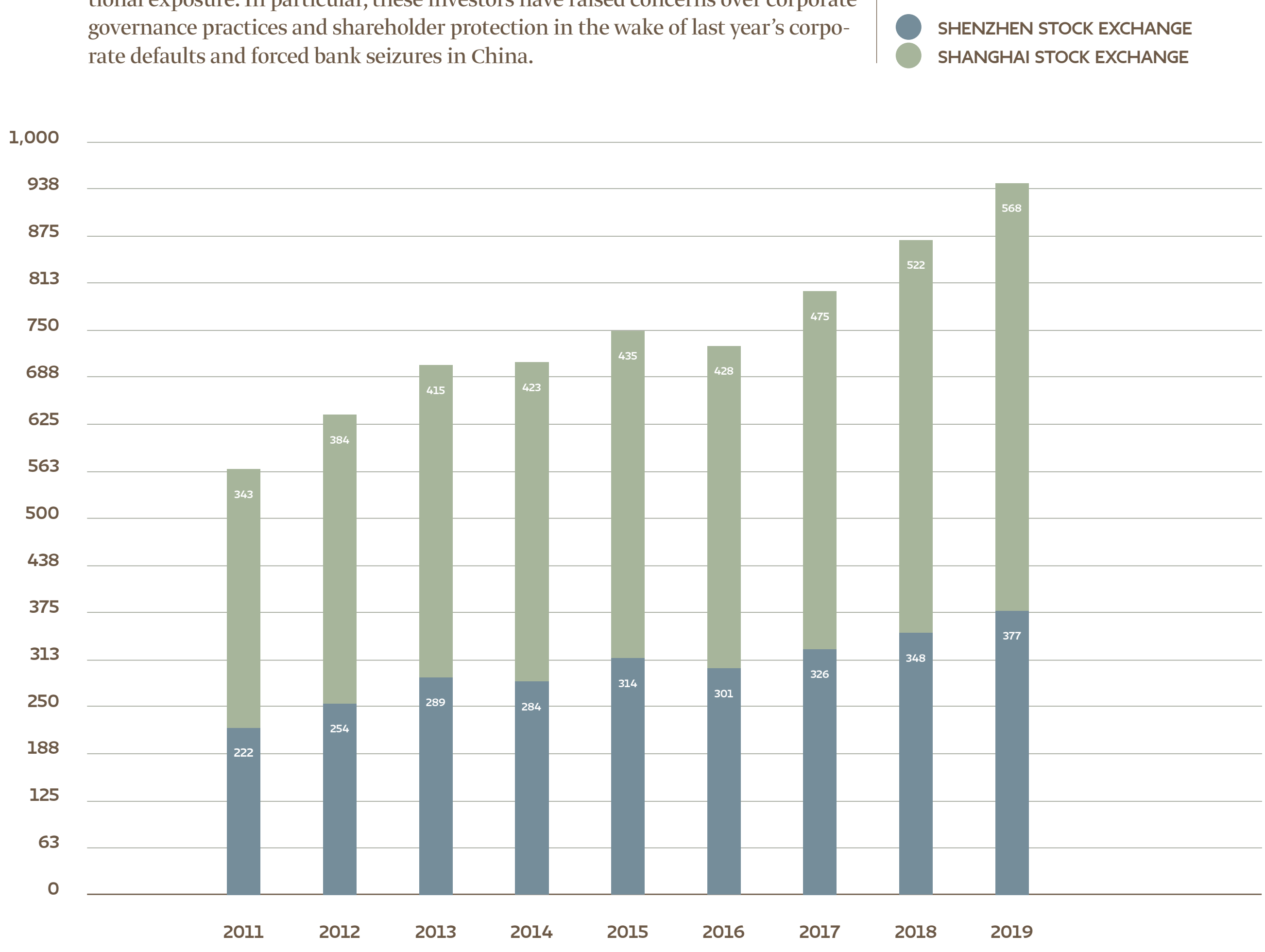


FIGURE 11: CSR reports issued in China

At present mainland Chinese companies are still grappling with integrating ESG considerations into their performance measurements and decision-making. Although matching Western levels of oversight remains a distant goal, data suggest a welcome, albeit gradual, improvement in recent years. The number of reports issued by mainland-listed companies relating to engagement and initiatives in social responsibility, sustainable development and other ESG matters has steadily increased both in absolute numbers and in the proportion of companies represented. As Figure 11 above indicates, 945 A-share listed companies issued corporate social responsibility reports in 2019 - 26% of all public companies listed onshore.

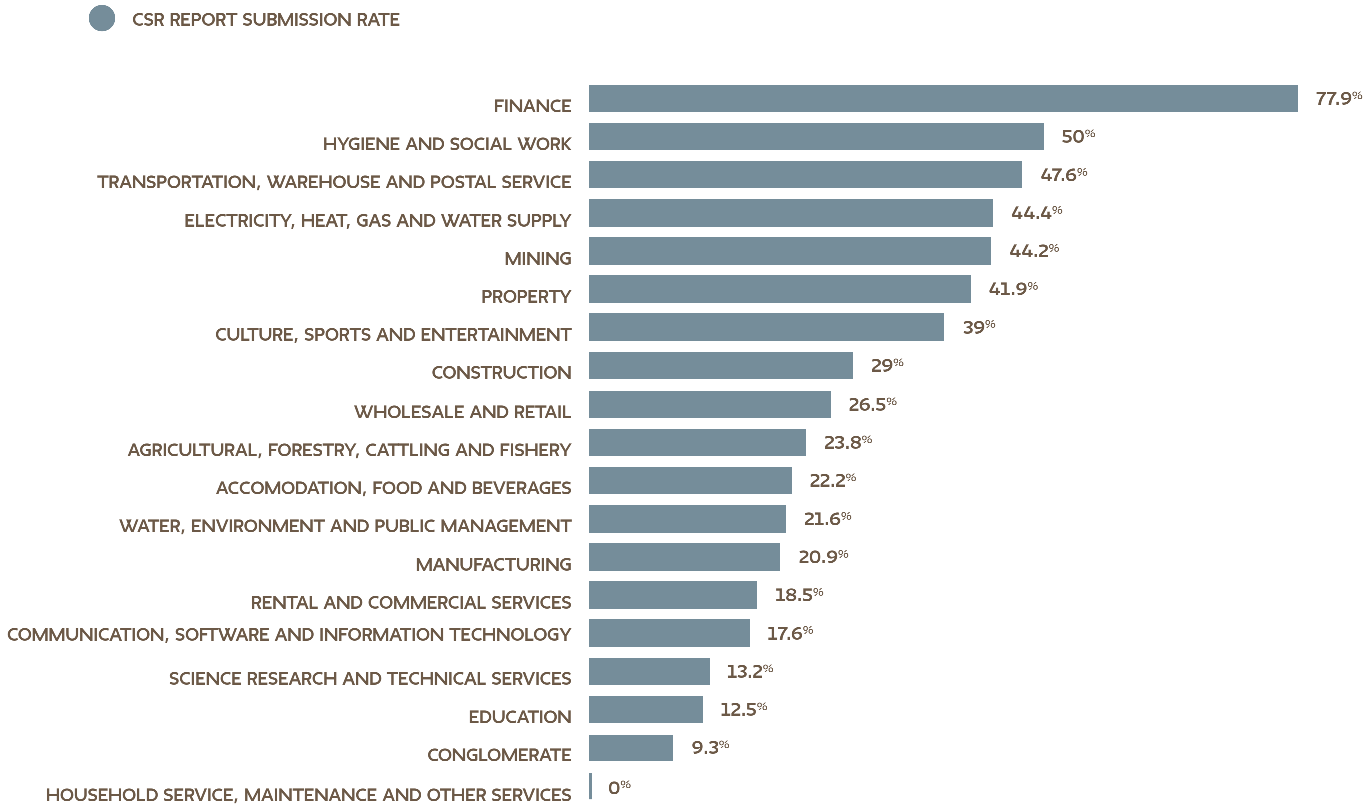


FIGURE 12: CSR reports by sector

Adopting ESG thinking is a two-way process in which internal company discipline and external governmental supervision reinforce one another. The authorities appear committed to improving reporting culture and transparency. China's politburo has taken a top-down approach to environmental protection and conservation. Since 2017 the government has increasingly focused on pollution prevention, introducing a more stringent supervision to minimize its impact.

External forces are also playing a part. Under the new ownership rules, global investors can set up wholly-owned onshore arms to provide banking services and distribute funds. Thanks to this foreign participation local practitioners have opportunities to become familiar with, and gradually conform to, global standards of best practice. Inclusion in global indices, along with the need to provide more and better information about both financial and non-financial performance in order to meet investor requirements, is also helping lift standards of Chinese corporate governance.

That said, to be effective, the implementation of ESG reporting and evaluation in China will have to take account of the unique features of its markets. Introducing complete and coordinated practices will take some time, and their final shape may not entirely correspond to the approach taken in Western countries.

THE LEAP IN CHINESE LISTINGS

According to the annual KPMG study[7] the capital raised from IPOs in mainland China and offshore Chinese exchanges grew in 2019 thanks to a range of initiatives that allowed companies easier access to capital. As of 2018, the Hong Kong Exchange (HKEX) topped the global rankings, raising over $37 billion. Furthermore, Shanghai joined the top five global exchanges in 2019, raising over $25 billion. The pace of new IPOs has however fallen during the first quarter of 2020 for obvious reasons.

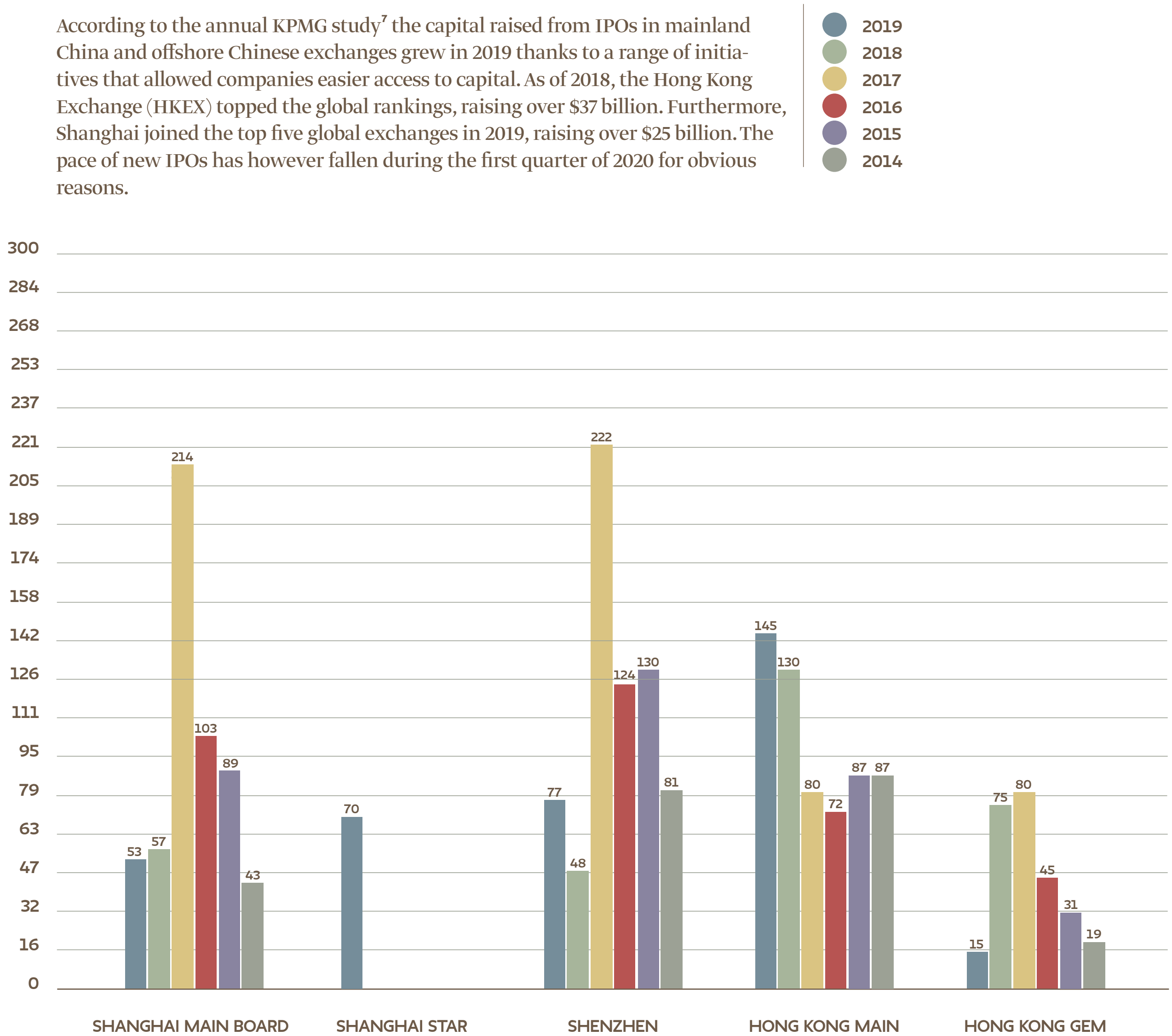


FIGURE 13: Chinese IPOs by exchange

Figure 13 above shows the increases in IPOs on the Shanghai, Shenzhen and Hong Kong exchanges, which in total grew from 310 in 2018 to 360 in 2019. In the A-share market, although the number of IPOs on Shanghai's Main Board fell to 53 in 2019, this was more than compensated by the 70 firms which raised money via its new Star Board for innovative high tech listings. Indeed four of the top ten largest A-share IPOs were listed on the Star Board. Meanwhile, IPOs on the Shenzhen exchange grew by over 60% in 2019. In total, A-shares raised over 251 billion RMB in the year. Turning to the Chinese offshore market, the number of IPOs on the HKEX fell in 2019, reflecting a significant drop of new listings on their GEM Board, which fell from 75 in 2018 to 15 in 2019. Despite the drop in IPOs on both the HKEX boards, total funds raised increased to HKD 307 billion in the year.

NEW HONG KONG RULES EASE THE WAY

By the end of 2019 the impact of Hong Kong's new listing regime was clearly evident. First implemented in April 2018, it seeks to reduce constraints on firms wanting to list on the HKEX. For the first time weighted voting rights (WVR) companies or firms with dual share structures can apply for listing. Three high profile WVR firms are now listed, most notably Alibaba in November 2019. This secondary listing by Alibaba raised over HK$101 billion (US$ 12 billion), the second largest equity capital raise in 2019, and contributed over a third of all funds raised on the HKEX that year. Other dual share firms listed included Xiaomi Corporation and Meituan Dianping. HKEX announced in late 2018 that WVR firms would be able to trade with Shanghai and Shenzhen via the existing Stock Connect Scheme, thus also allowing them access to mainland investors. In addition to these WVR-related changes, the relaxation of rules for biotech firms seeking HKEX listing also drove up demand. In 2019 nine such new companies were listed. Furthermore, international companies continued to be attracted to HKEX, with Budweiser Brewing Co and ESR Cayman Ltd raising HKD 45.1 billion and HKD 14 billion on HKEX respectively.

STAR BOARD OPENS THE DOORS TO INNOVATION

One of the most significant factors driving demand for mainland listing in 2019 was the establishment of the Star Board, set up to make it easier for high tech companies and emerging companies to obtain listing and thereby encourage innovation and development in mainland China. Twenty-five new generation IT, energy and biomedicine companies listed on the Star Board in July 2019. In addition, the Star Board operates a pilot registration system which increases the speed at which firms can list and also offers a variety of listing requirements in order to encourage more firms to list. Furthermore, firms with differential voting rights can also list on the Board if they meet certain criteria. These reforms to encourage IPO listing are now likely be adopted by Shenzhen and its high tech-focused ChiNext Board.

FUTURE INVESTMENT OPPORTUNITIES

A wide range of popular domestic - and increasingly global - Chinese brands is already available to investors wanting to make their first foray into mainland China. Driving the rise of these brands have not only been the reforms that China has been progressively introducing over time in specific sectors but also factors such as the rapid increase in urbanization. Together, these developments have boosted growth in GDP and in per capita income, which in turn have accelerated consumption and raised living standards. The whole process, which is projected to take five to ten years, will open up major investment opportunities, above all in five sectors.

1. THE CONSUMPTION BOOM

In future consumption will be the backbone of the Chinese economy. Many factors will drive this. Each year to 2025, an extra 11 million will join the ranks of the China's high-income groups[8]. While individual saving levels are among the highest in the world and consumption still only accounts for a smaller proportion of the GDP in China compared to developed countries such as Japan and the US, this situation is set to change markedly.

Starting in 2015, growth in consumption began to overtake investment expenditure in the industrial sector. Consumption now accounts for 54% of GDP growth[9]. Stunningly, manufacturing's share of GDP growth dropped from 20% to 7%[9] while the service sector growth rose from 40% in 2000 to 52%[9] in 2018. Many domestic players are set to be major long-term beneficiaries of these developments. Already, as consumption of quality goods has grown, Chinese retailers have been able to expand their margins.

R&D/INNOVATION	MARKET EXPANSION	PROFITABILITY IMPROVEMENT							
CONSUMPTION TYPES	INNOVATION PRODUCTS	PRODUCT PREMIUMS	TOP 3 MARKET SHARE			CHINESE COMPANIES NET PROFIT MARGIN			OVERSEAS PEERS' NET PROFIT MARGIN
			2016	2017	2018	2016	2017	2018	2018
DAIRY	PASTEURISED YOGURT	2X	46%	48%	50%	2.8%	3.7%	4.5%	13%
BREWING	HIGH END CRAFT BEERS	3-4X	58%	59%	60%	2.9%	4.7%	5.1%	10%
CATERING	SIGNATURE HOT POTS	1.5-2X	3.1%	3.4%	3.9%	9.4%	9.6%	10.1%	19%
SPORTSWEAR	FASHION CASUAL SPORTSWEAR	2X	43%	47%	50%	0.3%	6.1%	6.9%	10%

TABLE 4: Product upgrades & innovation

Consumers are not just looking for more products but better and more innovative ones. An example is pasteurized yogurt, a high-end dairy product twice the cost of traditional yogurt but which extends shelf life by eliminating pathogens. As Table 4 above highlights, similar trends are evident across a wide range of products.

CONSENUS SECTOR EARNINGS PER SHARE

Product innovation drives expansion and growth in market share, resulting in greater concentration and relative profitability among companies. According to current market consensus, the consumer sector is expected to see sustained earnings-per-share growth, as shown in Figure 14 below.

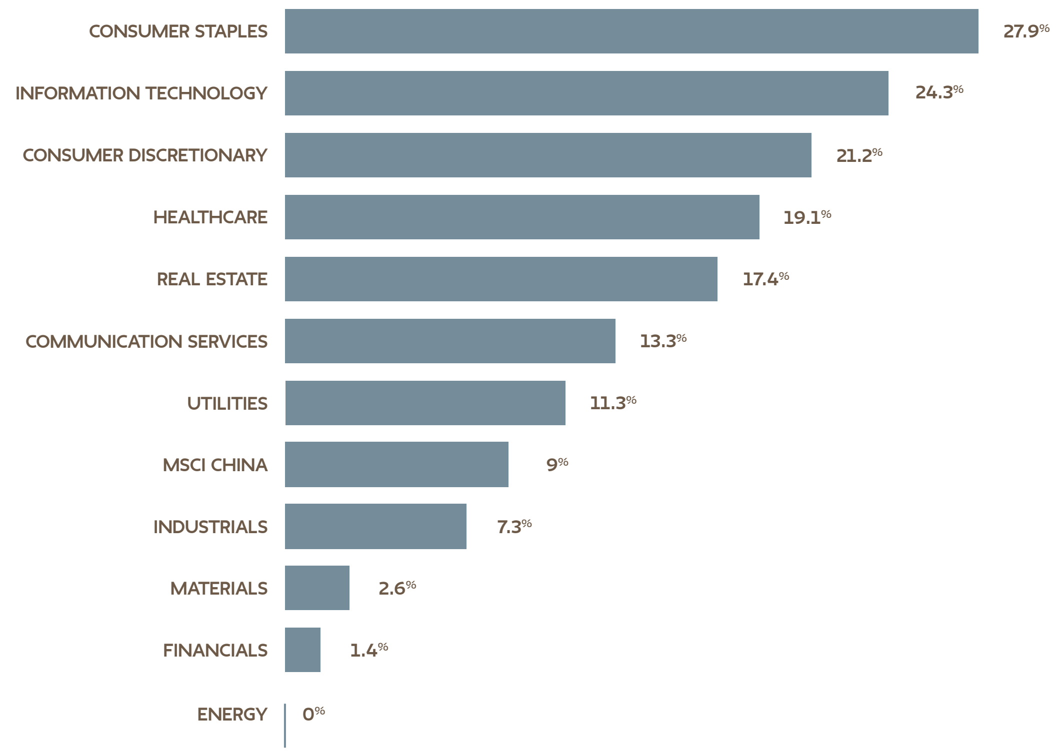


FIGURE 14: EPS growth forecasts for 2020

2. INNOVATION AND CONSOLIDATION IN HEALTHCARE

China's pharmaceutical and healthcare sectors offer particular potential for investors. China's over-65 population is expected to reach 170 million by 2020 - 12% of the total population[10] - inevitably increasing the need for improved healthcare and increased medical expenditure. The domestic market for innovative products will grow, for instance, for biosimilar drugs – artificial replacement drugs able to match the safety, purity and potency of natural compounds. Their development will offer a further opportunity for Chinese companies to become competitive players in the global healthcare arena.

Figure 14 reports the forecasts for earnings per share growth for the Chinese economy by sector. Other pharmaceutical developments will be more complex in their impact. The growth in generics and bulk procurement programmes, for instance, confront Chinese pharmaceuticals with both a threat and an opportunity. While driving down medicine prices across the board and thus eroding profit margins, they will at the same time encourage consolidation, allowing leading players to expand their market share and increase sales.

Currently, valuations of Chinese pharmaceuticals seem reasonable in view of their potential. Their fundamentals look strong given pharmaceutical market leaders' resilient response to regulatory changes coupled with their strengths in innovative drug development in fields such as antibiotics, neurology and oncology. These strengths will help counter the negative impact of lower-priced items such as generic drugs.

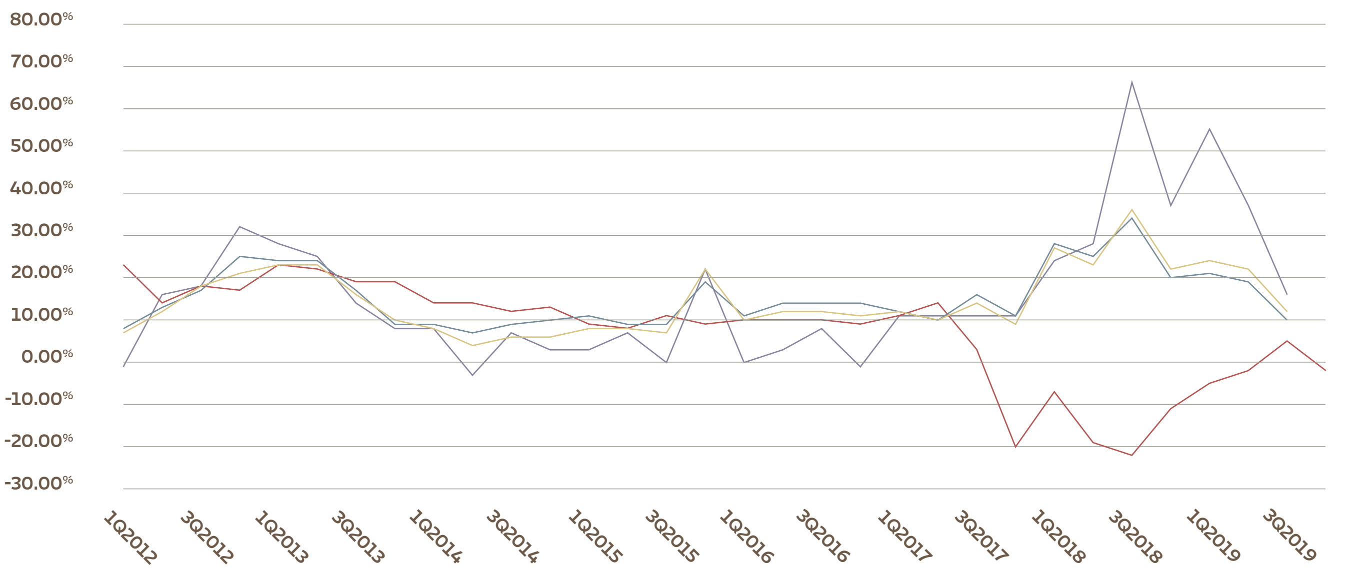


FIGURE 15: Chinese healthcare revenue growth

3. FILLING THE TERTIARY EDUCATION GAP

China's vocational and higher education sector is under pressure. The reason is two-fold – robust demand combined with inadequate supply. Every year some 9.5 million candidates sit for the National College Entrance Examination, the Gaokao[11], but only 7.5 million[11] find places in tertiary education, creating a supply gap for the remaining two million without places. Penetration of higher education in China is still at an early stage but set to grow markedly. China's gross enrollment rate, currently only 48% compared to 87% in the US[12], is likely to increase to 65% by 2035.

Chinese higher education might be likened to a shopping mall offering the potential to capitalize both on higher occupancy rates and on steady increases in ground rent over time. Increases in tuition fees represent the increases in 'ground rent'. Currently, private universities in China charge annual tuition fees of US$ 1,700 on average, whereas in the US they can be as high as US$ 20,000[13]. China's tuition fees can be expected to grow by 5% per over the next five to ten years in line with general salary increases.

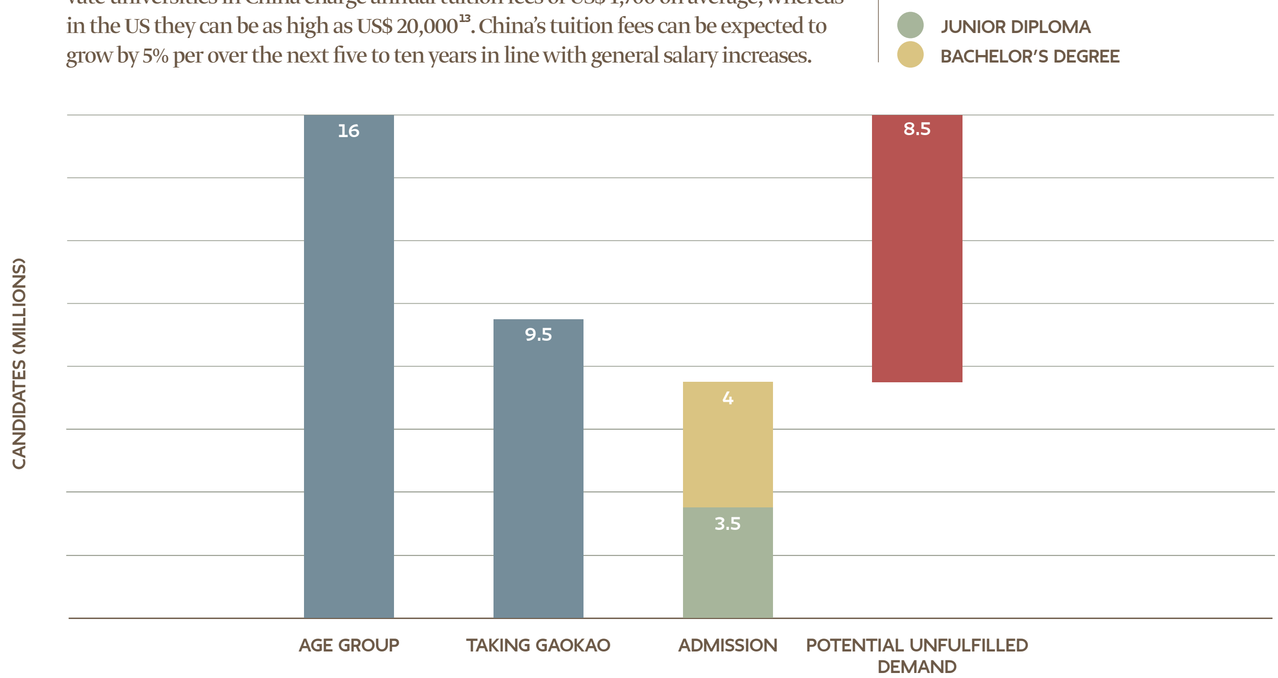


FIGURE 16: Chinese tertiary education

Figure 16 illustrates the supply and demand dynamics in tertiary education in China. In addition to the 9.5 million candidates taking the GAOKAO, another 6.5 million are seeking places in tertiary education bringing total unfulfilled demand to 8.5 million places.

This will result in an additional 750,000 new candidates per year. The Chinese education market also remains highly fragmented, indicating the availability of merger and acquisition opportunities. Smaller private universities and colleges in China might well be prepared to share their ownership stakes with bigger players in order to benefit from economies of scale. Taking all these factors into account, Chinese higher education has significant potential to be a source of strong and stable investment and income growth in future.

4. NEW HORIZONS ONLINE

A few years ago the world was taken aback by China's sudden switch to store-based online ordering. Mobiles are now driving this a stage further. Large areas of the leisure and entertainment industries are now available for sale online and are expected to experience 15% - 20% compound annual growth. Half of the market will consist of novel activities, such as home parties, paintball games, indoor archery and go-cart racing. The family market is rapidly coming to the fore. Child-friendly kitchens, early childhood education and family trips are already available for sale online. The online parenting services market is expected to double over the next three years.

E-commerce is now being complemented by the availability of a wide range of other online services. These include ride hailing, food delivery and e-booking for hotels, restaurants and cinemas. These services involve far more than simply translating offline services online via mobile applications. Behind the scenes complex data volume and optimization algorithms are at work, determining the most efficient delivery routes and bulking of orders. Yet, despite the great variety of online services now available, penetration, especially in lower-tier cities, still remains low and has great potential to grow.

LEADING E-COMMERCE PLATFORM		**ONLINE SERVICE PLATFORM**	
SEGMENT	ADDRESSABLE MARKET SIZE (RMB BN)	SEGMENT	ADDRESSABLE MARKET SIZE (RMB BN)
CHINA RETAIL - EXL AUTOMOBILES, FUEL, CATERING AND OTHER SERVICES	27,978	RESTAURANTS DINING & DELIVERY SERVICES	9,615
		HOTEL BOOKINGS	625
		TRANSPORTATION TICKETS	5,857
		CAR HAILING SERVICES	2,242
		BICYCLE SHARING	102
		ONLINE MOVIE TICKETS	318
		OTHER SERVICES	1,772
		TOTAL	**20,620**
TOTAL REVENUE	229	TOTAL REVENUE	27
MONETISATION RATE	0.82%	MONETISATION RATE	0.13%
		6X GROWTH POTENTIAL	

TABLE 5: Online service platforms

Monetised estimates of e-commerce and online service platforms, while still at an early stage, with the long-term leaders yet to fully emerge, nonetheless offer strong indications of future promise.

5. THE FIFTH GENERATION REVOLUTION

5-G wireless network technology will transform connectivity. As well as increasing efficiency and reducing latency, it will spur major expansions in content and give rise to a wave of innovative new applications. Many will be so-called 'smart' applications. One such will be the hyper-connected urban environment known as 'Smart City', an advanced initiative bringing together all local services, systems and information under one digital roof - a natural development given China's burgeoning urban centers. Even in ordinary households domestic appliances will be internet-connected - the so-called Internet of Things (IoT) - in order to enhance their benefit to consumers.

The new technology will in turn necessitate an unprecedented level of investment in infrastructure - two to three times that involved in 4G. This will span a broad spectrum of industries over the next three to five years, including hardware and software development, Cloud servicing, and other support applications. Figure 17 below indicates that the number of devices with internet access is expected to increase from 9.1 billion currently to 25.1 billion thanks to 5-G, resulting in a double digit annual growth rate in the sale of hardware devices.

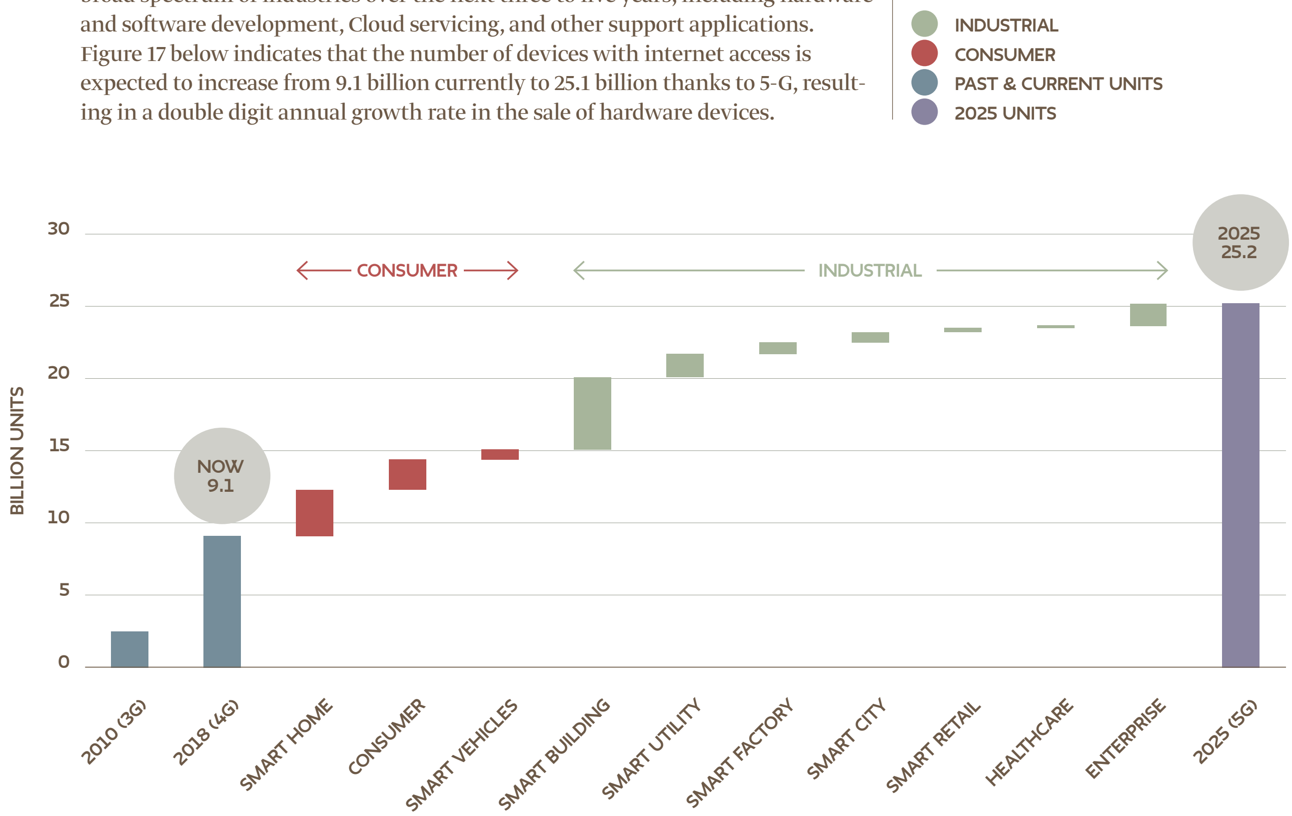


FIGURE 17: Growth in 5G-connected devices

In addition, it should not be overlooked that the 5-G revolution will also have a major regional impact. The Asian 5-G value chain will be increasingly interconnected, drawing together semiconductor suppliers in mainland China, Taiwan, Korea and Japan. Other Asian players specialising in areas such as packaging, manufacturing, device design and servicing will also be significant beneficiaries.

NAVIGATING THE CHINESE INVESTMENT MAZE

CHINA'S BIG THREE MARKETS

Together, the two largest exchanges in mainland China - Shanghai and Shenzhen - and Hong Kong represent the second largest market in the world by market capitalization after the United States with a total market capitalization of over US$12 trillion. Table 6 provides a summary of each of the three exchanges.

DECEMBER 2019	SHANGHAI	SHENZHEN	HONG KONG
NUMBER OF LISTED FIRMS	1,572	2,242	2,449
EQUITY MARKET CAPITALISATION (BN USD)	5,123	3,421	4,912
BROAD MARKET INDEX	SSE COMP	SZSE COMP	HANG SENG
MARKETS	MAIN AND STAR	MAIN, SME, CHINEXT	MAIN AND GEM

TABLE 6: Summary of Chinese exchanges

EQUITY SHARE CLASSES

Given the complexity of Chinese investment regulations and controls, it is important for overseas investors to distinguish between the various equity share classes that trade on mainland and offshore exchanges. Each share class is different, determining who can invest, where it can be traded and in what currency.

A-shares, the main form of Chinese shares, are issued by corporations in the People's Republic of China (PRC), are priced in Renminbi (RMB), and trade on both the Shanghai and Shenzhen exchanges. There are, however, at least half a dozen other Chinese share classes, the most prominent being B-shares. Issued by PRC companies, B-shares trade in US and Hong Kong dollars on the Shanghai and Shenzhen Stock Exchange respectively and thus can be accessed by foreign investors. Yet other Chinese share classes include H-shares issued by PRC firms that trade on HKEX; Red Chip shares issued by firms outside the PRC that generate over 55% of their revenue or assets inside the PRC and are controlled by the Chinese state; P-Chip shares issued by firms outside the PRC that generate over 55% of revenue or assets inside the PRC and are controlled by PRC companies or individuals; S-Chip shares that trade on the Singapore Stock Exchange in Singapore dollars, but remain controlled by Chinese state organizations, individuals or Chinese corporations; and finally N-shares that trade on the NYSE or Nasdaq in US dollars.

THE HONG KONG STOCK CONNECT SCHEME

To encourage integration between mainland and offshore Chinese markets and facilitate access by overseas investors, the *Hong Kong Stock Connect* scheme was established in 2014. Known as 'Northbound Trading', it allows direct access to mainland markets for retail, institutional and overseas and Hong Kong-based investors. However, such investors must trade through authorized brokers who are accredited HKEX members. Conversely, 'Southbound Trading' allows mainland investors to trade in HKEX listed shares. 'Home Market Rules' allow listed companies to operate under the rules where they are listed, while trading and clearing participants are subject to the rules where they operate. Trading and clearing rules are applied at the point where trades are executed. Hong Kong and overseas investors nevertheless remain protected by Hong Kong laws. A further raft of rules controls which types of shares can be traded (see Equity Share Classes above).

In addition, all trades must trade and settle in RMB, limits to orders are enforced, and no day trading is permitted. Furthermore, a daily quota restricts the volume of cross-border flows, currently measured as the daily value of net buying (buys less sells) with an upper limit of 52 billion RMB. While this limits the number of buy orders on a particular day, investors are nevertheless free to initiate sell orders.

SHANGHAI-HONG KONG	NORTHBOUND TRADING	SOUTHBOUND TRADING
AVERAGE DAILY TRADE VALUE (BUY+SELL)	21,331 RMB M	6,794 HKD M
TOTAL TRADE VALUE (BUY+SELL)	4,991 RMB BN	1,563 HKD BN
AVERAGE DAILY NO. OF TRADES (BUY+SELL)	1,210,931	110,745
NO. OF TRADING DAYS	234	230

SHENZHEN-HONG KONG	NORTHBOUND TRADING	SOUTHBOUND TRADING
AVERAGE DAILY TRADE VALUE (BUY + SELL)	20,367 RMB M	3,995 HKD M
TOTAL TRADE VALUE (BUY + SELL)	4,766 RMB BN	919 HKD BN
AVERAGE DAILY NO. OF TRADES (BUY + SELL)	1,153,617	93,507
NO. OF TRADING DAYS	234	230

TABLE 7: Hong Kong Stock Connect trading flows

Table 7 provides an indication of the size of flows across the *Hong Kong Stock Connect* scheme for both Shanghai and Shenzhen. It is clear that the large majority of the flows consist of 'Northbound Trading'.

SOURCES

SOURCE 1: The World Bank, 2018
SOURCE 2: Bloomberg
SOURCE 3: China's National Bureau of Statistics
SOURCE 4: The State Administration of Foreign Exchange of the People's Republic of China, September 2019
SOURCE 5: Shenzhen Stock Exchange, March 2018
SOURCE 6: Goldman Sachs, Citi, HSBC, CICC Research
SOURCE 7: KPMG, Mainland China and Hong Kong 2019 Review: IPOs and other market trends
SOURCE 8: CEIC, Morgan Stanley, Citi Research, January 2019
SOURCE 9: EIU, CICC Research, January 2017
SOURCE 10: Population Pyramid, Statistics Bureaux of various countries, October 2019
SOURCE 11: Ministry of Education of the People's Republic of China, Frost & Sullivan, Wind and Education Counts
SOURCE 12: Value Partners, Morgan Stanley
SOURCE 13: Value Partners

TABLE SOURCES

TABLE 1: Bloomberg
TABLE 2: OM LAB, Oxford Metrica
TABLE 3: Value Partners, 31 December 2019
TABLE 4: Bloomberg, Euromonitor
TABLE 5: iResearch, iMedia, JPM, NBS, Company disclosures
TABLE 6: Shanghai, Shenzhen & HKEX, December 2019
TABLE 7: HKEX Market Statistics, 2019

FIGURE SOURCES

FIGURE 1: Bloomberg
FIGURE 2: ECDC & worldometers.com
FIGURE 3: WIND, CICC Research, 31st March 2020
FIGURE 4: Bloomberg
FIGURE 5: Bloomberg
FIGURE 6: Bloomberg
FIGURE 7: OM LAB, Oxford Metrica
FIGURE 8: HSBC Research via BBC
FIGURE 9: MSCI, FTSE, CICC Research, China Chartbook 4Q19,November 2019
FIGURE 10: CLSA, Wind, October 2019
FIGURE 11: Choice, company disclosure, 23 September 2019
FIGURE 12: Choice, company disclosure, 23 September 2019
FIGURE 13: KPMG, Mainland China and Hong Kong 2019 Review: IPOs and other market trends
FIGURE 14: FactSet, IBES, MSCI, CSI, GS, December 2019
FIGURE 15: Wind, NBS China, BofA ML, July 2019
FIGURE 16: CSCI Research, Frost and Sullivan
FIGURE 17: Merrill Global Research, Dell'Oro, GSMA

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