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Enduring structural themes to outlast the cyclicality of markets: from East to West

Fullerton Insights

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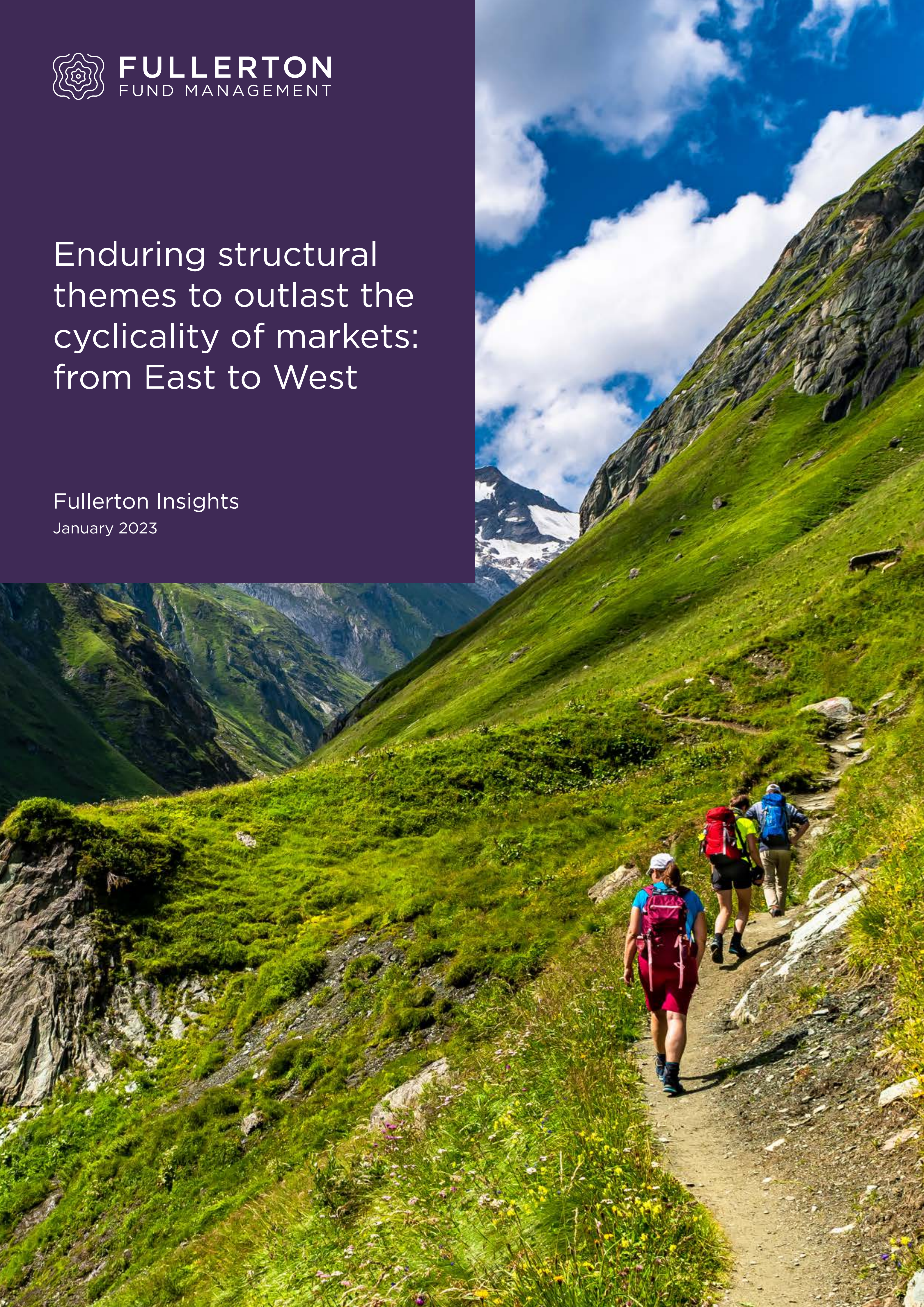


Executive Summary

In today's volatile markets, that have been continually buffeted by geopolitical headwinds and macroeconomic shocks, investors may be tempted to adopt a short-term stance to investing. However, such an approach ignores the longer-term benefits of staying invested to take advantage of several structural trends across financial markets which have the potential to outlast near-term market gyrations.

Some of these trends have been evident for many years as they reflect durable fundamental factors that may continue to play out, regardless of the wider macro backdrop and economic cycle.

This paper peels away the layers of the onion to dive deep into the core fundamental factors underlining the permanency of the structural gains in the identified areas. The five themes we are positive about are:

- **Technological Advancement,**
- **Healthcare Needs,**
- **Great Power Competition,**
- **Climate Protection,** and
- **Changing Consumer Behaviour**

A sixth 'theme', **Earnings Visibility Amidst Inflation**, is an evergreen trend that applies across all industries and is especially relevant to investors today as firms face greater cost pressures as they try to defend their earnings growth and market share.

Author

Robert St Clair
Strategist

What are our key takeaways?

We see these structural investment themes as offering the following key features:

- **Resilient** to cyclical shocks, and more correlated with demographic trends, income per capita, behavioural spending habits, and regime changes.
- **Attractive sources of alpha** for investors for the long-haul, irrespective of where we are in the economic cycle.
- **Spillover benefits** across the investment themes as some key drivers are correlated, suggesting multiple avenues for investors to gain exposure and harvest alpha across different countries, interconnected sectors, and stocks.

1. Summarising our investment themes and their historical performance

We believe that global equity markets are progressing through a bottoming process, however the adjustment is proving uneven, with renewed recession fears and as global central banks fight inflation. Adding to the uncertainties and poor sentiment, some investors have become more bearish on China's longer-term outlook, especially after the 20th Party Congress (October 2022). We explain why we remain positive on China as a long-term investment destination (see Box Item: With greater volatility is China still investable?), and, as we illustrate in this paper, many of our enduring investment themes are directly applicable to China.

The table below (Figure 1) summarises the five global investment themes that we believe are likely to offer attractive alpha opportunities to equity investors over the longer-term. We explain the key features and fundamental drivers of each, suggest a possible sector universe that investors could select from to gain exposure, and give some stylised stock-level examples that fit with the various investment themes.

Figure 1: Summary of our long-term investment themes*

Theme	Key Features	Mapping to a feasible investment sector universe (MSCI AC World Indices)	Stylised Example Companies^
1) Technological Advancement	Potential investment opportunities are likely to continue to unfold from the on-going global digital transformation (i.e 'the Internet of Things'), especially benefiting technology-enabling firms, and with stronger earnings growth broadly across the Information Technology (IT) sector that may flow from greater demands associated with the 'metaverse'[1].	Information Technology	TSMC (Taiwan), Microsoft (US)
2) Healthcare Needs	Healthcare sector revenues are likely to continue to trend higher as most countries experience rising per capita health spending over time, as incomes and life expectancy rise. At the same time, advances in pharmaceutical manufacturing, and potential functional benefits from new technologies (including the metaverse), may increase efficiencies and profitability. There is also likely to be an added boost longer-term to the performance of healthcare corporates serving households within countries that have ageing demographics and large numbers of older adults (e.g China, India, Japan, the US, and most of Europe).	Healthcare	BDMS (Thailand), UnitedHealth Group (US), Jiangsu Hengrui Medicine (China), Takeda Pharmaceutical (Japan)

1. An iteration of the internet, the 'metaverse' is a network of virtual words. It will likely revolutionise digital experiences, fostering greater consumerism with enhanced social interactions. New products (e.g. IT hardware to access and utilise the metaverse) as well as services (e.g. software to drive platforms) are likely to emerge, along with other applications across a broad range of industries, beyond the IT sector, such as in new industrial manufacturing, healthcare, finance, and education.

3) Great Power Competition	Greater geopolitical risks are likely to contribute to less globalisation over time and motivate more manufacturing and supply-chain onshoring. Geopolitical concerns also tend to increase the need for enhanced energy security, which has the spillover benefit of pushing for faster plans to transition further to renewables (e.g Europe). We believe machinery firms are likely to be well-placed to gain from this investment theme because of more onshoring demand, and the important role machinery outputs have in the supply-chain for energy, infrastructure, and renewables.	Machinery	POSCO (South Korea) Komatsu (Japan) Denso (Japan) Yamazaki Mazak (Japan) Woodside (Australia),
4) Climate Protection	Over time, and across many countries, investment opportunities are likely to be created from: • greater spending flows into renewable energy producing firms; and, • more indirectly from investment into key infrastructure projects to help countries reach peak carbon usage targets, and then eventually long-term carbon neutrality. Asia, dominated by China (as it is the largest global spender on shifts to renewable energy and electrified transport), is likely to offer significant alpha opportunities over time.	ESG, and Transport Infrastructure	NextEra Energy (US), Ningbo Orient Wires & Cables (China)
5) Changing Consumer Behaviour	Investment opportunities are fundamentally driven by the rise in consumption spending (as a share of GDP) across most countries as incomes rise. In addition, countries at different levels of income per capita offer differentiated investment opportunities across the consumerism spectrum. This can range from:	Consumer Discretionary, Retail	Haier Smart Home (China), VISA (US), LVMH (France), Titan Company (India), Chow Tai Fook Jewellery Group (Hong Kong)

	• firms offering discounted goods and services, especially within markets where e-commerce platforms are well-subscribed - as they can drive higher sales volumes (e.g. retail in Asia has the advantage over many other countries in having a relatively high proportion of e-commerce sales); and, • firms, (often with pricing power from brand loyalty), offering more luxury goods and services. Often, these types of goods and services are key components of the consumption baskets across more affluent consumers in developed markets. ○ Furthermore, higher income countries with ageing demographics may offer more investment opportunities across asset management, Fintech, wealth management, and retirement planning.		

* Many of these alpha themes could also be expressed by investing in the corporate debt of firms in the relevant sectors. We did not discuss such opportunities in this paper, but it typically follows that if a firm's equity is performing well then so will the returns from its corporate debt. Our investment themes are fundamentally linked to sector drivers and as a result, all asset classes exposed to the sector thematic can potentially benefit.

^ This is for illustration purpose only and does not represent Fullerton's current view of the security or constitute any recommendation.

A sixth 'theme' - **Earnings Visibility Amidst Inflation - is relevant across all sectors** and dictates that investors should always try to seek exposure to firms that are best able to control costs, and defend their competitiveness and market share, especially in an environment where inflation and production cost pressures could be higher for longer. Firms with pricing power that are best able to sustain 'earnings visibility amidst inflation' may encompass multiple corporate sectors across different countries, and can only be discovered from the 'bottom-up' perspective by examining cost controls, profit margins, and market share. Asia, and especially China, has the advantage of relatively lower inflation rates than the rest of the world which should help support earnings growth across all firms, while exporters may get an extra boost from weaker currencies (vis-à-vis the stronger US dollar).

Our investment themes are interconnected and overlapping

It is also important to emphasise that there are strong interdependencies, and potential positive spillovers, between most of our long-term structural themes. For example, investment returns that may be higher due to a firm's association with technological disruptions (and the metaverse), may also benefit as a result from serving households with rising spending patterns from evolving consumer spending habits.

Global e-commerce giants like Amazon or even the Chinese e-commerce players that have already disintermediated traditional wholesale distribution channels, and are adept at meeting evolving consumption habits, may benefit further from technological advances in terms of how consumers next choose to interact and engage with wholesalers and merchants in the metaverse.

Chinese e-commerce firms, in particular, JD.com, are benefitting from the interconnected themes of technological disruption and improving healthcare. JD.com has ventured outside its mainstream business of online retailing to offer innovative telemedicine consultation services. During the pandemic, it added more doctors to its platform, launched a smart epidemic assistant to share official information, and also evolved toward a touchpoint for triage service.

In a similar vein, healthcare may also get an earnings boost over time from technological advancements because the healthcare sector is investing heavily in the metaverse - where there can potentially be significant payoffs from efficiency gains, remote diagnostics and medical procedures. At the same time, IT firms that are developing healthcare application softwares will potentially benefit from rising demand for improved healthcare services. Other non-traditional healthcare firms, especially in China, like Ping An's Good Doctor, Tencent's WeDoctor, and Alibaba's AliHealth, are all examples of companies that have exhibited innovation in providing ancillary services outside their traditional business operations, and many of these new ventures are underpinned by some of the structural drivers we highlight in this paper.

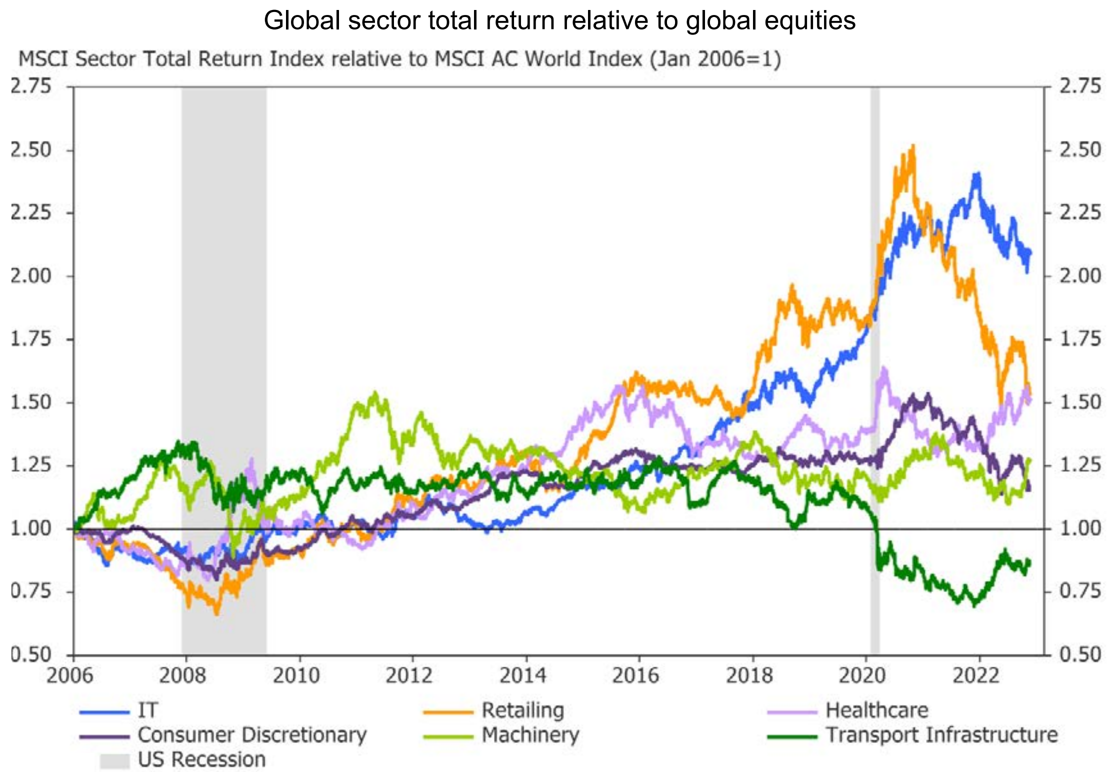
Machinery manufacturing, which we judge to be a useful proxy for 'new industrialisation', as the sector tends to be ahead of the curve compared to generic industrials, is another example of a sector that can benefit from multiple overlapping themes. Machinery manufacturing benefits from greater demand stemming from the structural themes in IT advancement, rising consumerism, healthcare innovation, and renewable energy. In renewables, machinery firms, as they meet the demands for key components, contribute to the growth in solar, wind, and power grid upgrades over time. China, for example, is already a global leader in the manufacturing of batteries, and power management systems across electric transportation, which is a tangible example of how machinery firms offer significant alpha opportunities in tandem with firms linked to climate protection.

Mapping our investment themes to their identified global sector universe suggests most have had favourable long-term trend performance

Figure 2 shows that the sectors aligned with our investment themes have robust trend return performance historically, typically in excess of the aggregate market, and with strong recoveries after recessions. In part that is because many of the key macro drivers and fundamentals that are generating alpha are structural in nature.

Retailing, in particular, has seen a significant upcycle in its alpha, surging with COVID lockdowns as consumers spent relatively more on goods, and especially via on-line retail. Once economies started to re-open however, demand normalised and corrected back. Nevertheless, consumerism remains one of the strongest sources of alpha over history and second only to the IT sector.

Figure 2: Historical equity performance of the sectors reflecting our investment themes relative to the market



Source: Refinitiv Datastream, November 2022
Past performance is not necessarily indicative of future returns.

Separately, Figure 3 illustrates the historical performance of stocks linked to our climate protection investment theme (i.e the absolute return performance of ESG-linked stocks across various countries). A key takeaway is that returns have been solid, although the COVID driven recession, and thereafter the high inflation and renewed growth fears of 2022, has seen performance slide. This is especially so for China as its ESG Leaders index, which has a large proportion of tech-related firms, where valuations were stretched, has seen a sharp cyclical de-rating.

Figure 3: Equity performance of ESG Leaders across key countries*

Source: Refinitiv Datastream, November 2022
Past performance is not necessarily indicative of future returns.
* MSCI ESG Leaders is a capitalisation weighted index that provides exposure to companies with high Environmental, Social and Governance (ESG) performance relative to their sector peers.

Nevertheless, the relatively strong trend performance of China's ESG leaders historically is encouraging. It may reflect the importance of China's huge spending on the green energy transition to renewables, which has boosted sentiment and created alpha opportunities for investors in the process. Returns from India have also performed well, tracking the global average, while returns from Japan and Europe have lagged.

In harmony with ESG stocks, which have fallen from their peaks across all countries, it is also worth noting, from Figure 2, that returns from Transport Infrastructure (a sector associated with the shift towards greener energy) has also suffered significantly with the poor economic environment since the COVID-driven recession. However, we expect that the returns from this sector will continue to improve, eventually back to outperforming the broader market, given the structural shift to cleaner energy and the significant global infrastructure spend in the pipe-line[2].

2. The US Inflation Reduction Act (IRA, 2022) is expected to add $1.7tn to spending on US infrastructure for climate change over the next 10 years (source: Credit Suisse 28 September 2022). China's expected spending is much more significant, with an extra $6.5tn USD needed for infrastructure along its adjustment path to peak carbon usage by 2030 (which is around 8% of global GDP and 45% of China's GDP. See https://www.fullertonfund.com/fullerton-insights/asia-rise-on-global-stage-emerging-opportunities-and-trends/ for a more detailed discussion).

2. The details behind our five core investment themes

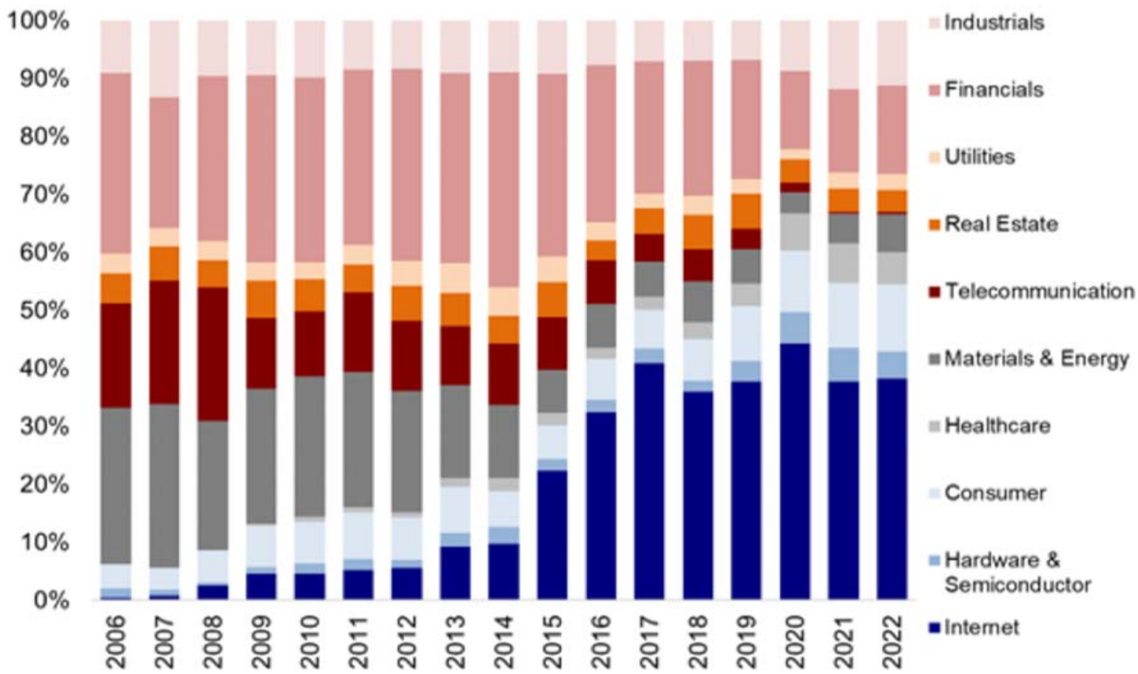
1) Technological Advancement

The global IT sector had a difficult recovery after the 2008-09 Global Financial Crisis (GFC), reflecting the painful debt de-leveraging that lasted for several years across most countries, and only catching-up to perform in-line with the broader market around 2014. Since 2015 the performance of the IT sector surged, in part because its key structural drivers became much more intense with greater spending on mobile platforms (driven by improved network capacity), the rise of Artificial intelligence (AI) and big data, along with the surge in social media.

The pull-back in IT sector performance in 2022 has reflected the weak macro environment, cyclical concerns around stretched valuations (especially in the US), and China's heightened regulatory scrutiny. The latter has seen some of China's conglomerate IT firms struggle as the 'common prosperity'[3] policy jolted investor confidence on fears that China's IT firms would be pushed into providing more competitive pricing for households. Increased regulatory scrutiny on China's tech sector is not meant at stifling innovation, but to lift regulatory standards, like personal data protection to be in-line with international norms, as well as to create a level playing field for all participants with equal access to opportunities. Furthermore, China's policymakers have re-emphasised that the IT sector is a key pillar of the economy and is critical to achieving the other primary objective of common prosperity which is to drive higher income growth over time.

Although China's equity index leaders have shifted markedly over the last 15 years, from telecommunications, to 'old-economy' industrials (such as materials and energy), and thereafter to finance and internet now, it seems likely that the internet sector, even with greater competition and consolidation, will remain a key sector in the years ahead (see Figure 4).

Figure 4: Sector composition of MSCI China (2006 to 2022)



Source: CICC, September 2022

3. China's 'common prosperity' is a policy designed to continue to grow per capita incomes over time and improve cost-of-living equality across all households. For some background discussion see: https://www.fullertonfund.com/fullerton-insights/chinas-regulatory-shifts-where-do-we-go-from-here/

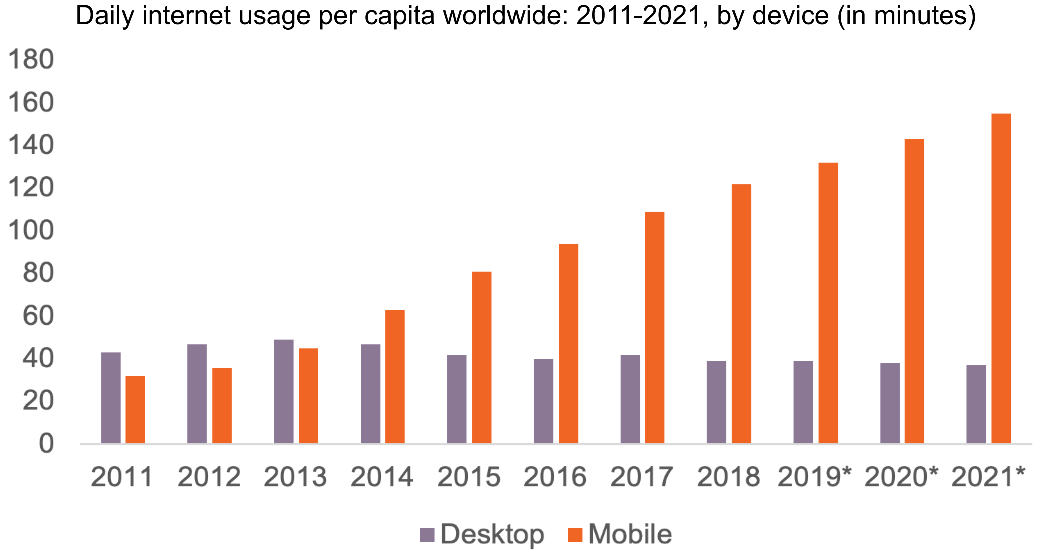
While some pullback and consolidation has likely reduced cyclical bubbly pressures across the global IT sector, we remain positive longer-term because of the following two key structural trends: (i) increased connectivity; and (ii) the metaverse.

More devices, more data, more IT demand, will drive investment opportunities

Consumers' mobile interactions with IT and the internet, per capita, is on a strong rising uptrend. This correlates well with the explosion in social media adoption, improved network performance, and the volume of data created globally (see Figure 5). These trends are likely to continue, and looking out to 2030, it is expected that the number of IT connected devices will increase sharply as well (see Figure 6).

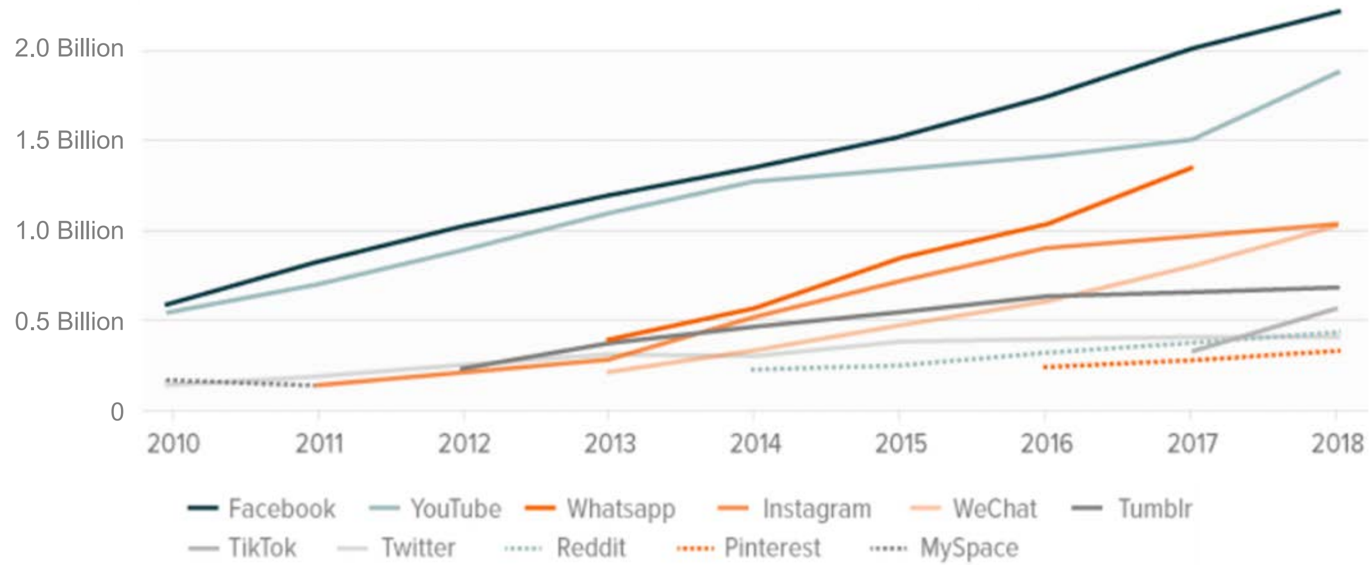
These structural forces should underpin strong performance from the IT sector over time and create new and attractive alpha opportunities for investors, especially across established IT conglomerates, that are well distributed across the US, Asia, and Europe (see Figure 7). Despite new technologies tending to push the real prices of final IT goods and services lower, the volume of demand is potentially huge and rewarding for many global IT players, especially those firms that already have significant market share, decent pricing power, and brand loyalty.

Figure 5: Demand for IT devices, social media usage, and data, are seeing strong uptrends which will likely continue



Source: Statista, Zenith, 2022. *Forecast

Number of people using social media platforms



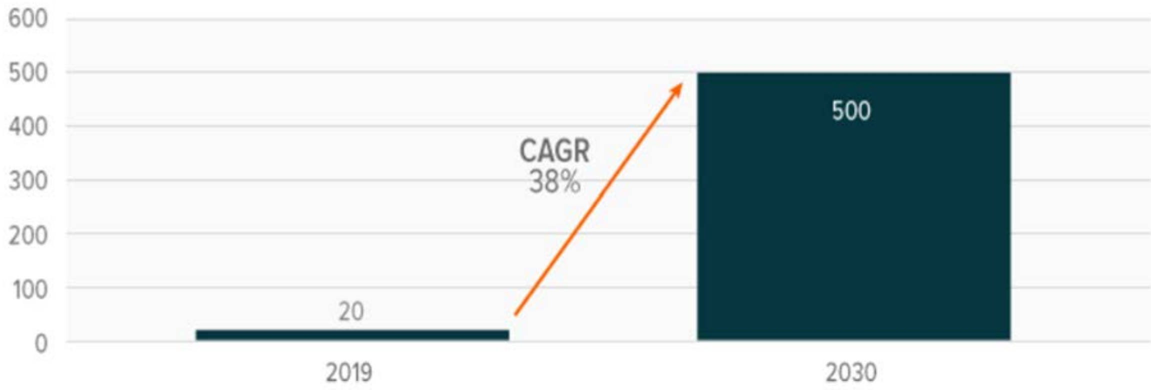
Source: Statista and TNW (2019)

Volume of data / information created worldwide: 2010 - 2025

Source: Statista, 2022. *Forecast

Figure 6: The number of IT connected devices is expected to grow strongly until the end of 2030

Global number of connected devices by 2030 (in billions)



Source: Global X Research, Ericsson Mobility Report, Cisco, May 2022

Figure 7: Tech investment universe across regions (global top 25 companies)

Rank	Name	Market Capitalisation (in USD bn)	Region
1	Apple	2,068.5	USA
2	Microsoft	1,766.4	USA
3	Alphabet (Google)	1,134.2	USA
4	Amazon	847.1	USA
5	Tencent	407.6	Asia
6	TSMC	385.4	Asia
7	NVIDIA	351.9	USA
8	Tesla	344.5	USA
9	Meta Platforms (Facebook)	310.7	USA
10	Samsung	298.0	Asia
11	Alibaba	246.2	Asia
12	Broadcom	231.3	USA
13	Oracle	218.3	USA
14	ASML	216.6	Europe
15	Cisco	195.3	USA
16	Adobe	155.8	USA
17	Texas Instruments	148.6	USA
18	Meituan	146.0	Asia
19	Salesforce	130.7	USA
20	IBM	127.7	USA
21	Netflix	126.5	USA
22	QUALCOMM	122.7	USA
23	SAP	120.9	Europe
24	Jingdong Mall	108.3	Asia
25	Pinduoduo	107.7	Asia

Source: Companiesmarketcap.com, December 2022.
Only the top tech companies are shown in this list and tech companies that are not publicly traded are excluded.

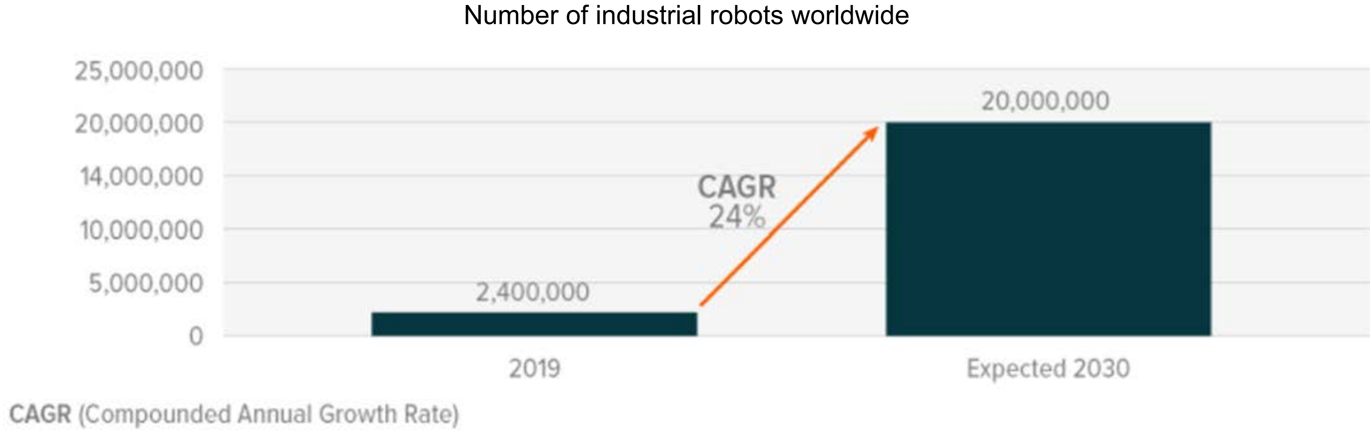
The rising demand for IT devices will spur increased underlying demand for the chips and component parts that power these devices. Leading semiconductor manufacturers like Taiwan Semiconductor Manufacturing Company (TSMC) are well positioned to potentially benefit from this trend.

TSMC is the world's leading semiconductor foundry manufacturer which enjoys dominant market share especially with regards to advanced semiconductor chip manufacturing. The company's manufacturing prowess enables it to support and benefit from customers linked to industry megatrends such as High-Performance Computing (HPC), 5G, Artificial Intelligence, and the Internet of Things, given that continued technological advancement in these fields require the use of increasingly complex chips.

In-line with the increased demand for IT devices, there would also be rising demand for the software required to power the applications and operating systems of these devices. Companies like Microsoft are well placed to continue to ride on this trend. The computing giant, Microsoft develops hardware and software product offerings spanning across the entire spectrum from corporate enterprise to individual consumers. Its best-known products include the Windows line of operating systems, the Microsoft Office suites as well as Azure Cloud. The company is a key beneficiary of the digital transformation wave that is revolutionising business operations across the world, as a result of the adoption of new business models. For example, the shift to hybrid work arrangements (enabling the "work-from-anywhere" model), which was accelerated by the COVID-19 pandemic, has greatly benefitted some of these software manufacturers.

As outlined in Section 1 of the paper, there are potentially significant spillover benefits to other corporate sectors across our investment themes as the likely strong performance of the IT sector will create outputs that can drive advances and investment opportunities across new industrials and machinery, the consumer sector, healthcare, and renewable energy. For example, the number of industrial robots used in manufacturing and production is expected to rise significantly in the years ahead, which will benefit both the IT sector as well as the productivity and performance of the machinery sector (see Figure 8).

Figure 8: Spillover benefits from the outputs of the IT sector will likely improve the productivity and performance of industrial manufacturing and machinery



Source: Global X Research, Oxford Economics, International Federation of Robotics, May 2022

The huge value creation potential of the metaverse

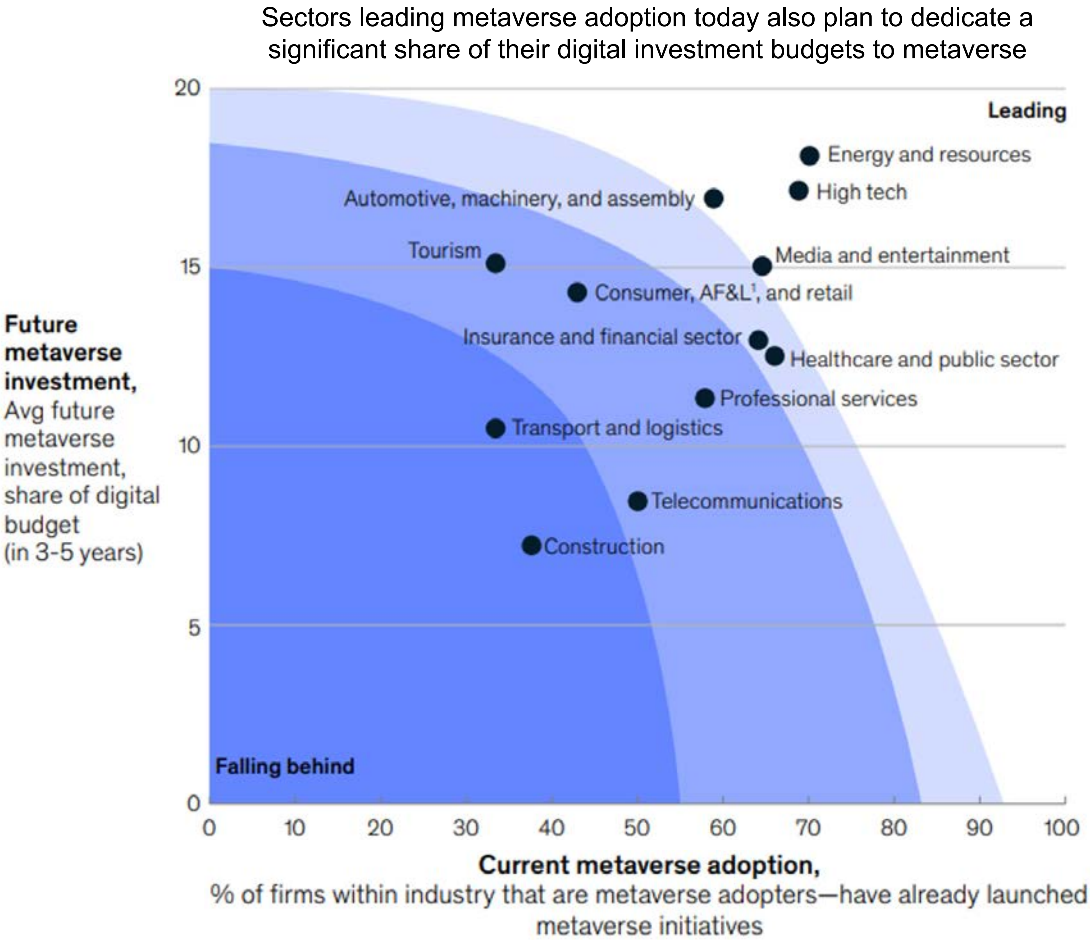
A second key structural driver of the positive revenue performance of the IT sector is likely to come from payoffs from the metaverse. A report by McKinsey, "Value Creation in the Metaverse" (June 2022), highlights that already almost 80% of consumers active on the metaverse make purchases, and at least 15% of global corporate revenues are expected to come from metaverse-related activities over the next 5 years.

The metaverse is perhaps the single biggest development on the horizon that will help drive favourable performance across the IT sector (especially digital media), and at the same time create investment opportunities across several other sectors that utilise the technology (both in the hardware and software sectors). Examples include:

- Consumerism, and e-commerce especially (as metaverse platforms have the potential to make searching and purchases more immersive and personalised);
- Education (by enhancing the delivery and quality of learning experiences);
- Financials (as the metaverse may facilitate new products and services, especially across insurance, payment systems, and Fintech);
- Healthcare (where leveraging on the metaverse may allow efficiency gains, better optimised hospital operations, and improvements in diagnostics and procedures); and lastly,
- Telecoms, which are expected to benefit from the monetisation of enhanced IT infrastructure, as well as from productivity improvements across their internal operations and customer interactions.

The McKinsey report concludes that many industries could ultimately be transformed by the metaverse due to its ability to blend seamlessly the physical and the virtual worlds. The greatest impact may be felt by firms that are already significant adopters of metaverse platforms and interfaces, and that plan to increase investment spending in these areas over time (examples would include companies in sectors like high-tech machinery, consumerism-linked industries, and healthcare. See Figure 9).

Figure 9: Potential spillover benefits from the metaverse into other corporate sectors



[1] Apparel, footwear, and luxury.
Source: McKinsey & Company Senior Executive Survey, April 2022

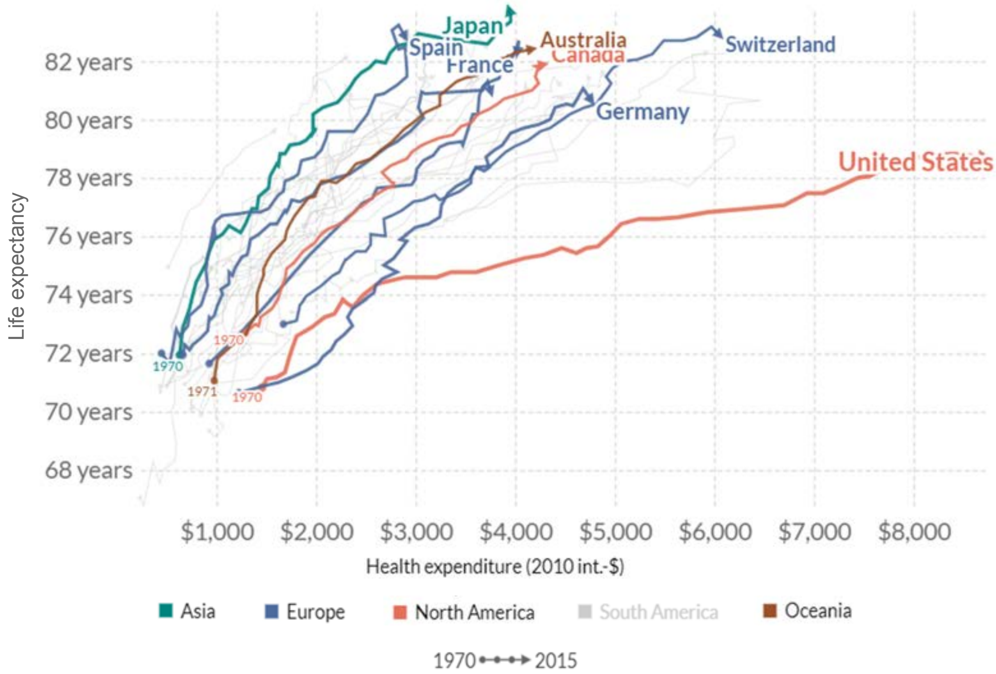
2) Healthcare Needs

A key fundamental driver behind our positive outlook for investment returns from the healthcare sector is the basic fact that as per capita incomes increase, heath spending tends to rise across most countries (see Figure 10). At the same time, advances in pharmaceutical manufacturing, and functional benefits from on-going new technologies, can increase efficiencies and profitability across health providers.

As large as economic activity is across China (second only to the US), China's real per capita income today (at around $12,500 p.a USD) is only about where the US was in 1980. However, given their respective health infrastructure systems, both countries have about the same life expectancy (almost 80 years) and yet the US spends ten-times more than China per capita on healthcare (see Figure 11).

Thus far, the evidence suggests that China has been able to provide good quality healthcare with respect to achieving high life expectancy (on par with the US) but with much less per capita spending on healthcare. Nevertheless, the first goal for China is likely to be to increase its per capita healthcare spending to at least the global average, which fits with what China's policymakers have emphasised as a key objective of 'common prosperity' (by providing quality healthcare at affordable prices for all households). President Xi has stated that "Health is a pre-requisite for people's all-round development and a pre-condition for economic and social development." China's approach to its healthcare industry is an all-encompassing one that includes expanding its universal health insurance coverage across its rural and urban populations, as well as a supportive regulatory regime to facilitate execution.

Figure 10: Real annual per capita health spending across selected Developed Market countries by life expectancy (from 1970 until 2015)



Source: Data compiled from multiple sources by World Bank; Health Expenditure and Financing - OECDstat (2017)

Figure 11: Real annual per capita health spending across selected countries, including the global average, by life expectancy (in 2019)

Source: United Nations - Population Division (2022); World Health Organisation (via World Bank)
Note: Health expenditure per capita is measured in current international-$, which adjusts for price differences between countries.

Increased healthcare spending in China is not just about consumers spending more for medical-related services and products for improved outcomes, but includes increases in R&D expenditure. This will help China move up the value chain, with improved healthcare infrastructure, coupled with stronger drug and medical equipment manufacturers. This will in turn spawn investment opportunities across a wide range of sectors from healthcare service providers to preventive care, biotech, as well as pharmaceuticals. The growth potential is huge – for example, China's online pharmaceutical sales is expected to double to RMB 380bn in 2025 from RMB190 bn in 2020[4].

Aside from China, many other Asian countries are also likely to experience significant catch-up in healthcare spending as incomes continue to grow, and as such, is likely to spur attractive investment opportunities. While relatively lower per capita income countries are likely to see the strongest growth in healthcare spending over time, it is also likely that more affluent countries will experience greater healthcare spending pressures as well, given the large numbers of ageing adults (see Figure 12).

Figure 12: Top 10 countries with the largest number of older adults

Rank	Country	# 65+ (in millions)	% 65+ (of total population)	# total population (in millions)
1	China	166.37	11.90	1398.03
2	India	84.90	6.10	1391.89
3	United States	52.76	16.00	329.15
4	Japan	35.58	28.20	126.18
5	Russian Federation	21.42	14.60	146.73
6	Brazil	17.79	8.50	209.33
7	Germany	17.78	21.40	83.10
8	Indonesia	15.16	5.60	268.42
9	Italy	13.76	22.80	60.34
10	France	13.16	20.30	64.83

Sources: United Nations Population Division, World Population Prospects 2019, and Toshiko Kaneda, Charlotte Greenbaum, and Kaitlyn Patierno, 2019 World Population Data Sheet (Washington, DC: Population Reference Bureau, 2019)

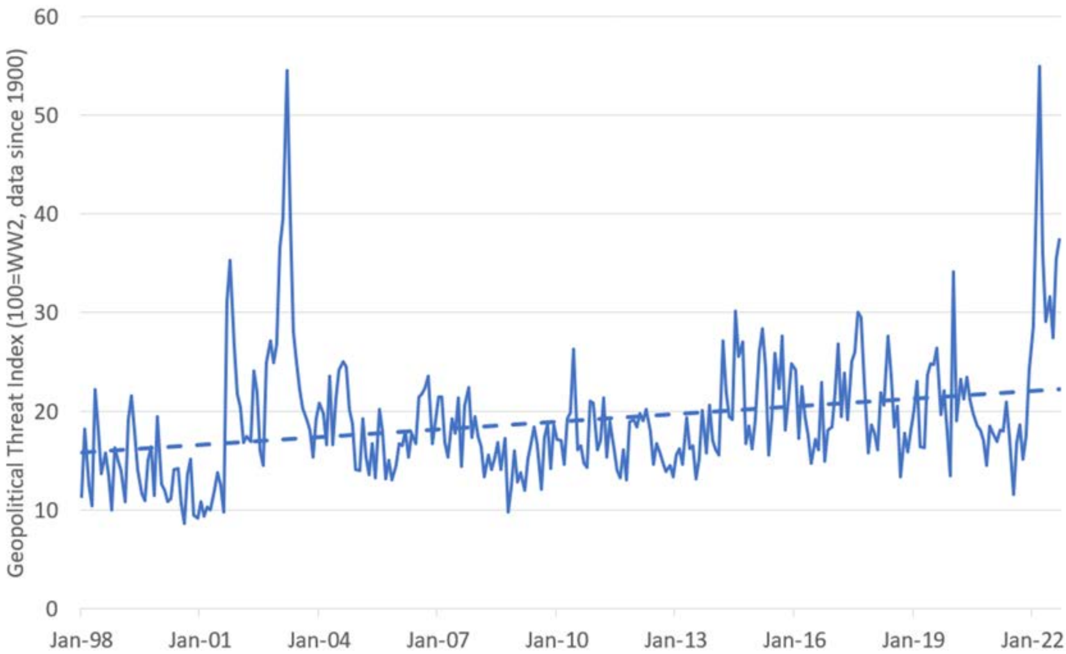
Overall, what makes global healthcare an attractive long-term investment opportunity is that all countries are experiencing trend rises in per capita incomes and the health sector stands to benefit from greater demand (even if life expectancy gains slow). In addition, high-income countries that are already spending significant amounts on healthcare will also face greater pressures for sustainably higher spending with ageing populations (e.g US, Japan, Italy, France, and Germany).

3) Great Power Competition (can benefit 'new industrials' like machinery)

The incidence of geopolitical threats, most recently dominated by the Russia-Ukraine invasion, and the deteriorating relationship between the US and China, have been slowly trending up over time and are now the highest in recent history since the 2003 Iraq War (see Figure 13).

4. China Business Intelligence Network, October 2021.

Figure 13: Geopolitical risks since 1998



Source: A news-based measure of adverse geopolitical events and associated risks since 1900. The geopolitical risk index spikes now, and around the two world wars (WW2=100, and is the worst period), at the Korean War, during the Cuban Missile Crisis, and with the Iraq War (2003). From Caldara, Dario and Lacoviello, September 2022.

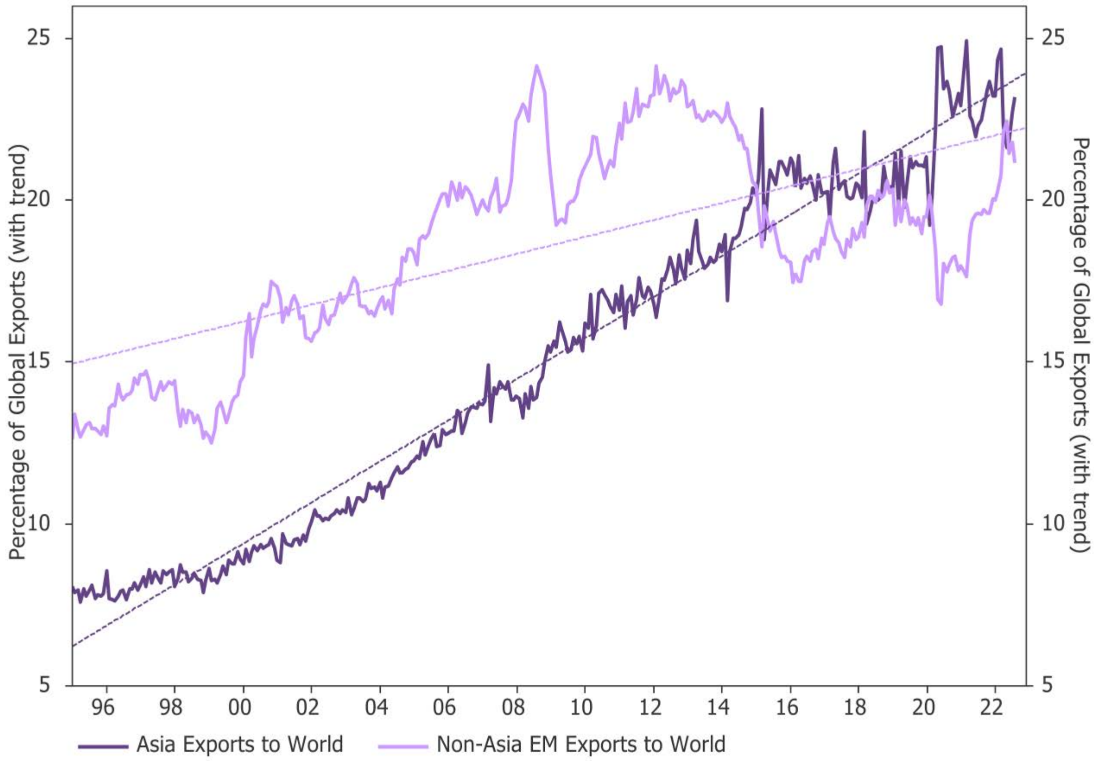
The potential economic side-effects of rising geopolitical risks are that it may result in more manufacturing and supply-chain onshoring over time, which may boost the return performance from industrials, like the machinery sector. Greater geopolitical risks have also highlighted the need for countries to accelerate the transition away from fossil fuels to clean and renewable energy, which is another long-term investment theme we are positive about.

As the shift to greener forms of energy takes time, transitional energy sources like natural gas may continue to gain in prominence, over the adjustment process. Companies that could benefit from this include Woodside Energy, Australia's largest independent oil and gas company with a focus on LNG exports. The decoupling away from Russian energy and the focus on energy security has led to stronger demand for LNG imports from Europe. Reliance (India) is also a refining company that has benefited from shifts toward greener energy with greater demands for its natural gas, as well as stronger revenues from its petrochemicals (driven by plastics manufacturing).

POSCO (South Korea) is the world's largest steel manufacturing company by market value, with significant production resources in the US, as well as across key fast-growing markets in Asia, like India and Vietnam. Denso (Japan) is an advanced transport equipment manufacturer, producing technology systems and components for most major global automakers. They have a broad product portfolio, spanning mobility electronics, electrification systems, sensors, and semiconductors. Yamazaki Mazak (Japan) is a global leader in the production of machine tools, laser cutting equipment, and automation / robotic systems. Komatsu (Japan) is a multinational (serving construction, mining, and forestry sectors) with significant stakes in the manufacturing of components for engines, transmissions, and control devices for semiconductors. A key takeaway is that all these types of firms may draw benefit from countries seeking more sustainable supply-chains, especially for critical higher value-added manufacturing, as well as gaining from stronger global demand for IT infrastructure, robotics, and electrical-based energy and machinery.

That said, there is also the adverse risk that there will be greater push-back against favourable globalisation trends like free-trade and capital flows. However, Asian firms may have some resilience against such risks, especially in comparison to firms within non-Asian Emerging Markets, because Asia's share of global trade is on a positive uptrend (see Figure 14).

Figure 14: Asia's share of global trade vs non-Asia Emerging Markets



Source: Refinitiv Datastream, November 2022

Another advantage to Asia, and especially China, is that there are many firms that are already global leaders in their respective fields and have significant global market share (which can provide some cushion against de-globalisation forces). Many of these Asian corporate leaders are concentrated across some of our most preferred investment sectors such as IT (especially cloud services, and mobile devices), machinery (namely in semiconductors and robotics), as well as in the climate protection space (i.e solar panels, EV batteries, and renewable energy storage systems)[5].

4) Climate Protection (can benefit ESG stocks and Transport Infrastructure)

Investment opportunities under the umbrella of climate protection are likely to stem directly from greater spending flows into renewable energy producing firms, and more indirectly from investments into key infrastructure projects to help countries reach their carbon usage targets – which increases the likelihood of a prolonged 'virtuous cycle' boon for climate-linked investing.

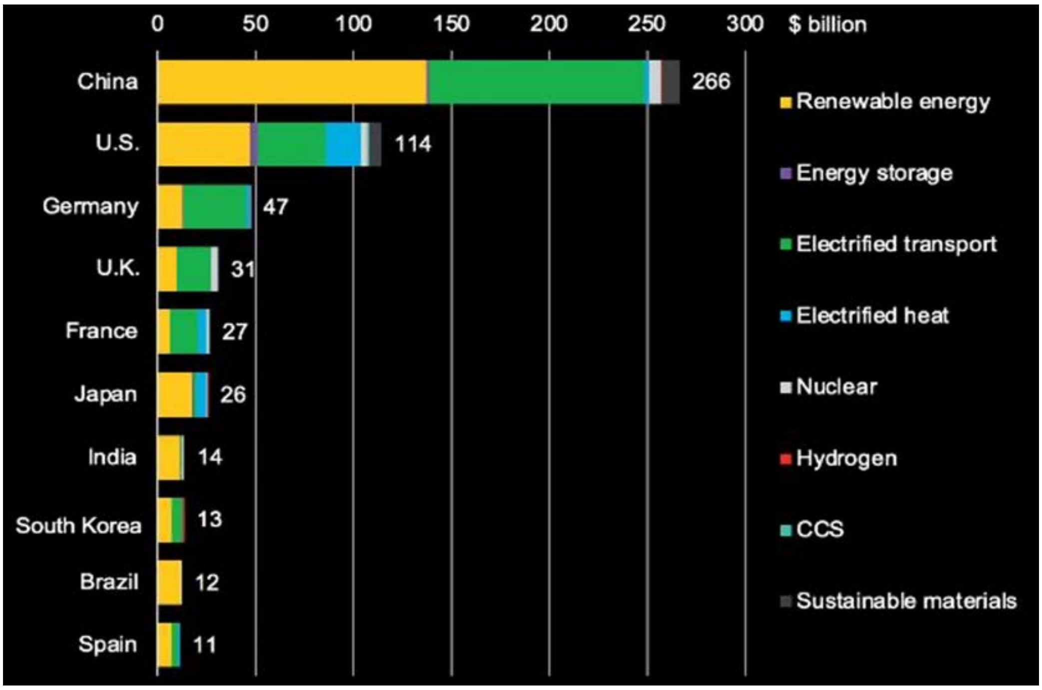
Earlier, Figure 3 of this paper showed that the US has been one of the strongest performing ESG-linked investment markets for more than a decade. Its solid trend performance is likely to be sustained, especially as US policymakers continue to strive for greener energy (with the latest initiatives being captured in the Inflation Reduction Act 2022). Companies that can continue to benefit from this backdrop are NextEra Energy, the largest US utility company and installer of solar panels and onshore wind turbines. It has a domestic US market share of around 10% and is also a pioneer in large scale utility-storage and hydrogen technology.

Europe's returns from ESG-linked investments have lagged the global average, but this may improve over the years ahead as Europe has pledged to get an extra 5% of its energy from renewables by 2030 (i.e increasing its target to 45% from 40% for EU energy from renewable sources)[6].

ESG investment performance across key Asian markets, like China and India, has also been solid over history, and in our view China, in particular, offers strong upside potential going forward. Asia has a long way to go to reach its carbon usage targets and there can be early-mover advantages for investors. Already China is by far the largest global spender on shifts to renewable energy and electrified transport, which given its size and scope is likely to offer significant alpha opportunities over time (see Figure 15).

5. For more detailed discussion on these investment opportunities see https://www.fullertonfund.com/fullerton-insights/asia-rise-on-global-stage-emerging-opportunities-and-trends/.
6. Source: May 2022, Reuters.

Figure 15: Top countries spending on green energy in 2021



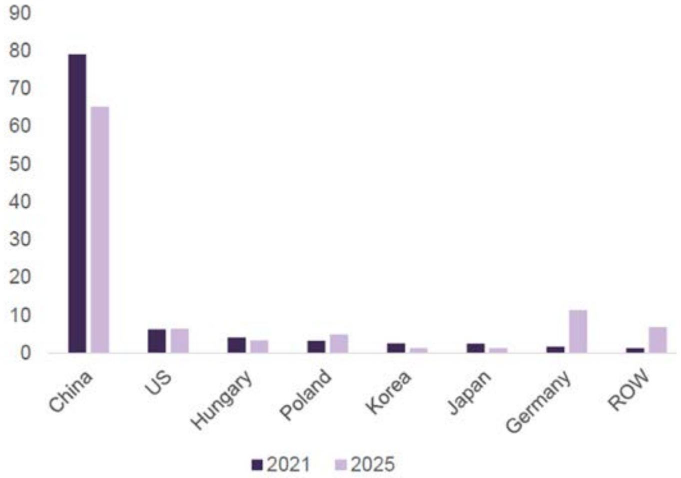
Source: BloombergNEF February 2022. Note: CCS = carbon capture and storage.

China has implemented one of the most aggressive climate change policies of any country in the world, with initiatives to encourage transition and penalise polluters, for example by capping outputs of highly pollutive industries like steel and cement, limiting new (fossil-fuel dependent) vehicle licensing, and endorsing green alternatives.

Many Asian companies are already global leaders in selected green technologies (see Figure 16). One example is Ningbo Orient Wire & Cable (China), which has benefited from increased demand for wind energy in both China and abroad. Already the company ranks within the global top three of offshore energy cable providers, and is one of most advanced technology providers for deep-water energy and transmission solutions.

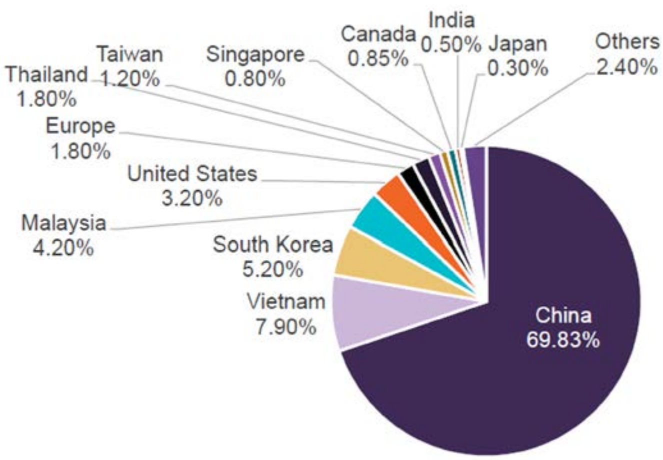
Figure 16: China is a global leader in many green energy technologies

Global Li-ion battery capacity by country

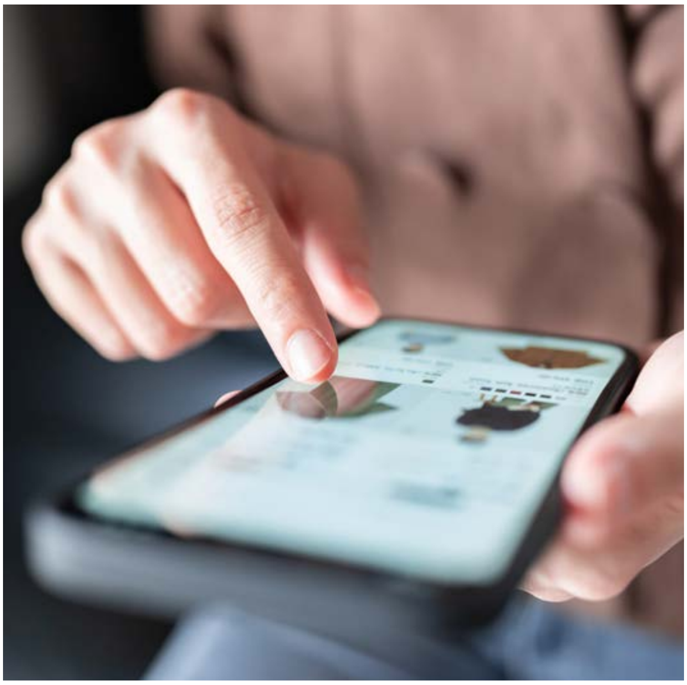


Source: Statista, March 2022

Solar module production capacity by country



Source: Statista, March 2022



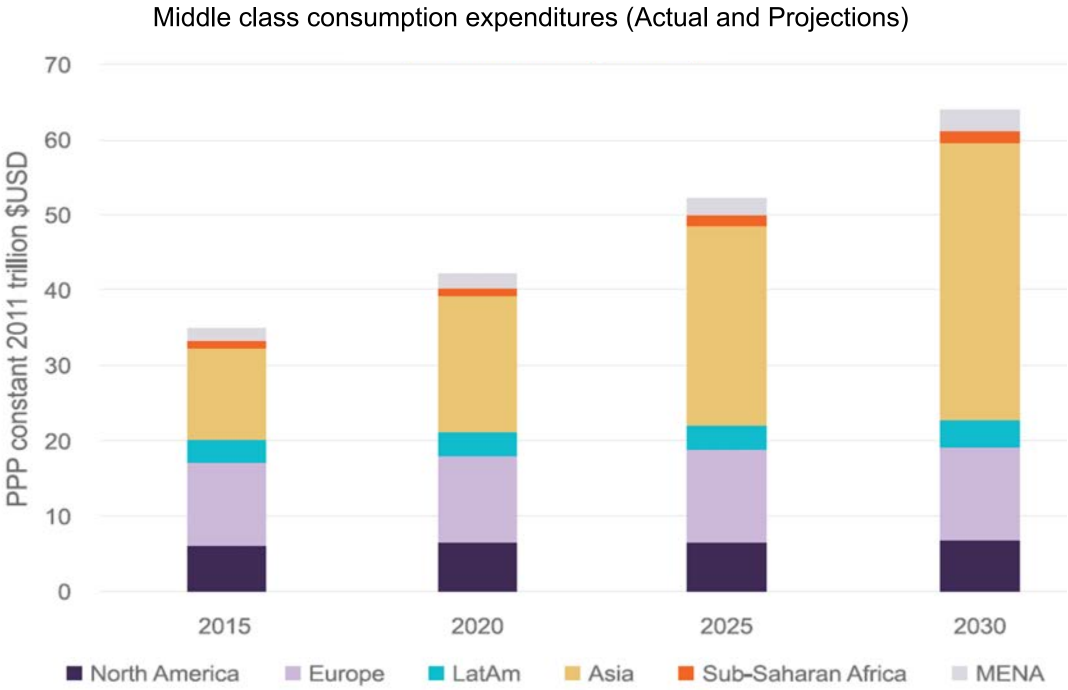
5) Changing Consumer Behaviour (can benefit consumer discretionary and retail)

Consumerism, the dominant driver of the demand side of the economy in most countries, is one of the oldest sources of alpha that investors most often consider (on par with industrialisation on the supply-side). Consumerism is at the heart of the profit motive for firms and capitalism, which really surged, especially across developed countries, with the advent of television in the 1950s. A 'consumer culture' was birthed, driven by advertising centred around buying products, like automobiles and other durable goods, to increase social status.

The modern consumerism boom is driven by digitalisation, social media, and the Internet. Unsurprisingly then, as observed from Figure 2, and second only to the performance of the IT sector, global retail equity performance has been one the strongest sources of alpha for investors since the 2008-09 GFC bust. The US is the ultimate market, with opportunities for many firms across the whole spectrum of consumption, from discount goods to luxury and branded products and services. In the latest data, US households spend around US$17.5tn p.a. on consumption[7], with almost half of US consumption growth coming from the wealthiest 10% of households. On that basis the US will likely always be a key source of consumer-linked investment opportunities: as the Nikkei Asian Review put it - "If everyone consumed resources at the US level, you would need another four or five Earths" (24 January 2019).

Notwithstanding the US dominance, Asia has its advantages too - it is the fastest growing consumer market in the world, which is a trend that will likely continue into the next decade (see Figure 17).

Figure 17: Asia's leading role in the growth of consumerism

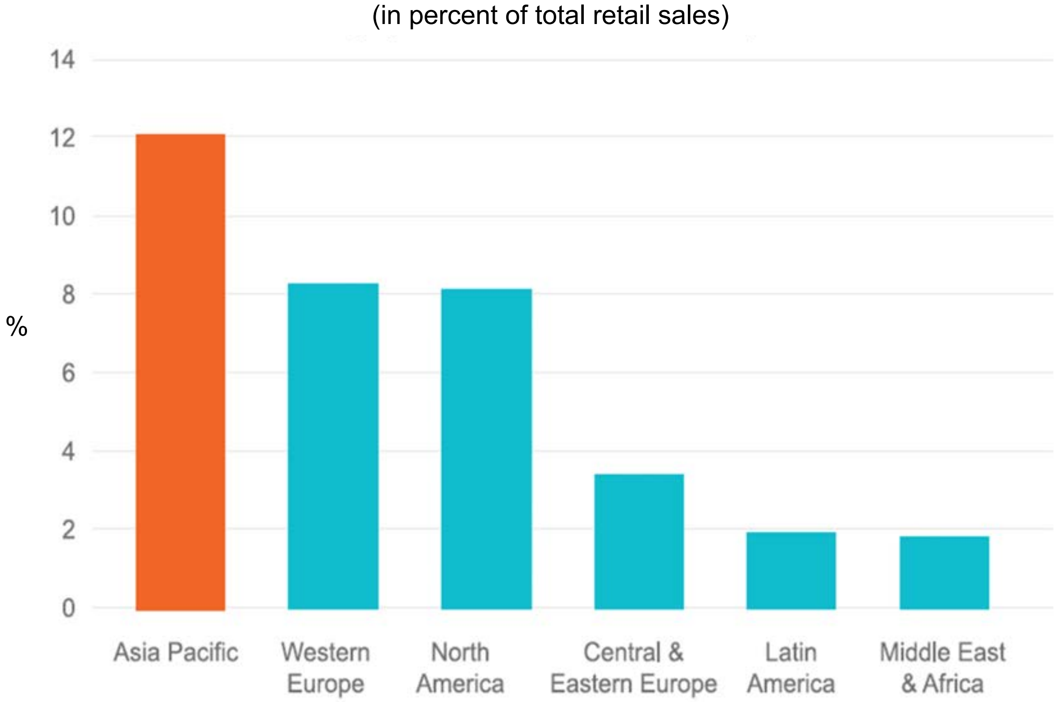


Source: Brookings Institute, February 2017

7. Refinitiv Datastream, as at Q3 2022

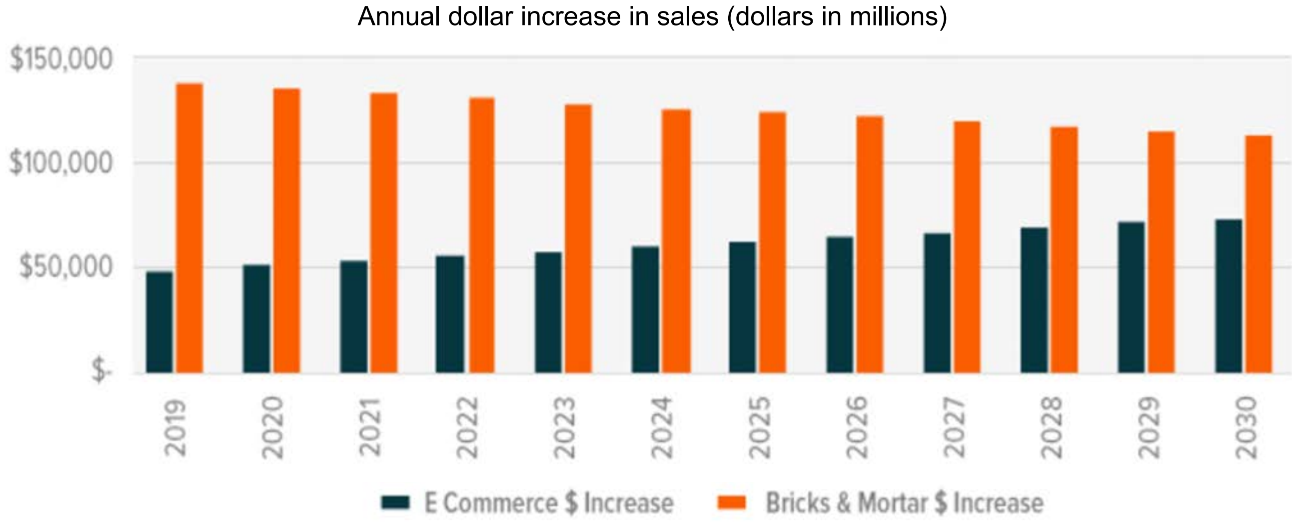
Asia also has the greatest penetration of e-commerce into retail sales (see Figure 18). The latter may provide key opportunities for investors seeking consumer-linked alpha going forward because there is likely to be significantly stronger growth in the performance of e-commerce firms than in traditional 'brick-and-mortar' retail (see Figure 19).

Figure 18: Asia's dominance in e-commerce



Sources: ystats.com and staff estimates, and IMF, 2019

Figure 19: Global e-commerce is growing much faster than traditional retail



Source: BigCommerce, May 2022

Fintech opportunities across Asia, often linked to consumerism, are discussed in more detail in our May 2022 Investment Research paper[8]. A DM example, VISA (US), facilitates digital payments in more than 200 countries, acting as a trusted intermediary among consumers, merchants, financial institutions, and governments through innovative technologies. There are over 3.6bn cards, credit and debit, issued globally and over 70 million merchants that accept Visa cards. Its future opportunities include the B2B, P2P and G2C channels, where the company can use its existing network infrastructure, security and anti-fraud analytics to apply to new use cases.

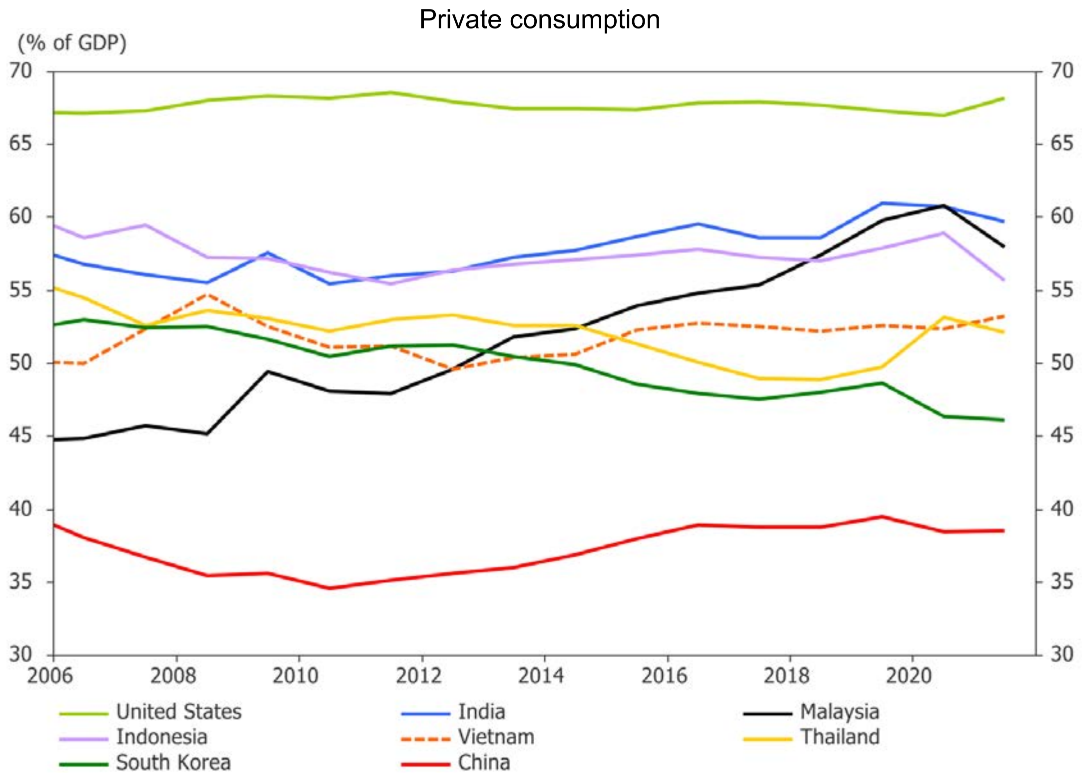
Consumerism is an investment theme that has multiple dimensions across different countries. Firstly, there are the high-income countries that already have a large share of consumption in GDP (see Figure 20). A significant chunk of their spending basket is skewed toward discretionary retail products, in particular luxury and branded goods, and relatively expensive services, such as travel and leisure activities (examples include the US, Europe, the UK, Singapore, Hong Kong, and South Korea).

Other wealthy countries have similar features, but consumerism-linked investment opportunities in Japan also reflect its ageing demographics, which is likely to drive relatively more demand over time for travel, higher-end leisure products, and financial services, especially for wealth management and retirement planning services.

Our strategy for these high income developed markets is to seek investment opportunities in firms that offer higher value-added products and services, with some brand recognition and associated pricing power. Typical examples include companies like: Amazon (US), Unilever (UK), Samsung (South Korea), Marriott Vacations Worldwide (US), Macy's (US), Nike (US), L'Oréal (France), Sony (Japan), and LVMH (France).

Across Asia, China, in particular, presents unique and especially attractive investment opportunities for consumer-linked investments because China's consumption as a share of GDP has significant upside (see Figure 20). China's low consumption share to GDP reflects much of its historical growth being driven by its leading role as the 'factory to the world'. China's consumption spending relative to its massive economy is likely to rise significantly over time as China's 'common prosperity' theme continues along with its on-going re-balancing towards a more domestically-oriented economy taking shape. Over the next decade China is likely to see significantly more consumerism, which is likely to create long-lasting opportunities for investors across the whole gamut of retail activities and especially e-commerce (given the high levels of internet penetration). In addition, as China's per capita income continues to grow there will be more investment opportunities created across firms offering luxury and high-end branded goods and services.

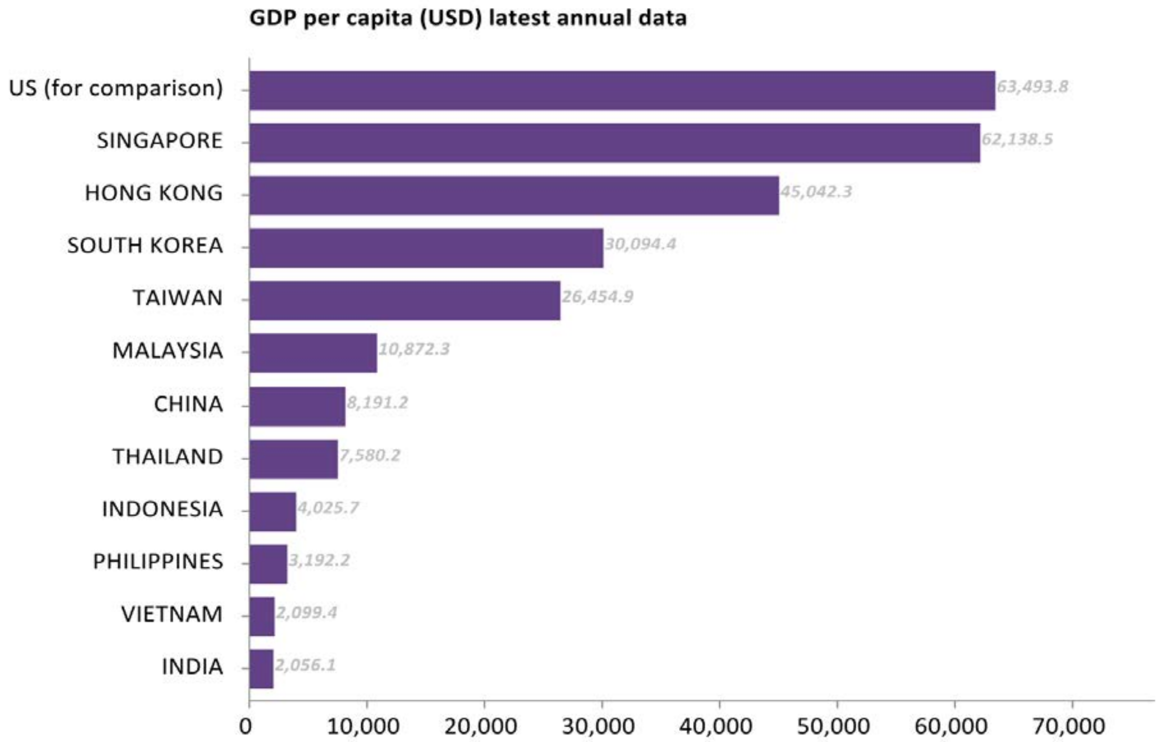
Figure 20: Consumption as a share of GDP, and per capita income, across key countries



Source: Refinitiv Datastream, November 2022

8. See https://www.fullertonfund.com/fullerton-insights/asia-rise-on-global-stage-emerging-opportunities-and-trends/

Income across Asia



Source: Refinitiv Datastream, November 2022. The latest annual per capita income for most countries is 2021.

As Chinese consumers rise in affluence, the Chinese consumption-related companies that are well positioned to benefit from this shift would be the ones that are able to offer increased value and premiumisation of their products, to capture increased market share domestically. Examples of domestic brands that are executing well on this front include the likes of Kweichow Moutai and Li-Ning. In addition, consumers' consumption habits are also evolving more toward innovation and environmentally-friendly considerations. Companies that are able to position their products to take advantage of this trend are potentially well positioned to benefit from increased market share. In the case of Li-Ning, the company is playing its part in enhancing the circular economy and bolstering its sustainability credentials by adopting environmentally-friendly technology in its product offerings (such as the use of re-cycled plastic bottle waste materials into socks).

Another is Haier Smart Home, which is a leading company in China's home appliances sector, especially serving the higher-end market. Haier has also expanded its business globally through overseas mergers and acquisitions, and the overseas markets contribute about half of its revenue today. Through its 4G strategy of "green design, green manufacturing, green operation, and green recycling", Haier has built an environmental management system covering global operations, and provided green products to consumers through the green management of its entire product life cycle. Haier also leads the industry with innovative and high-quality products, and employs the Haier Smart Home Experience Cloud Platform and Haier Smart Home app as value-added tools to enhance the smart life consumer experience.

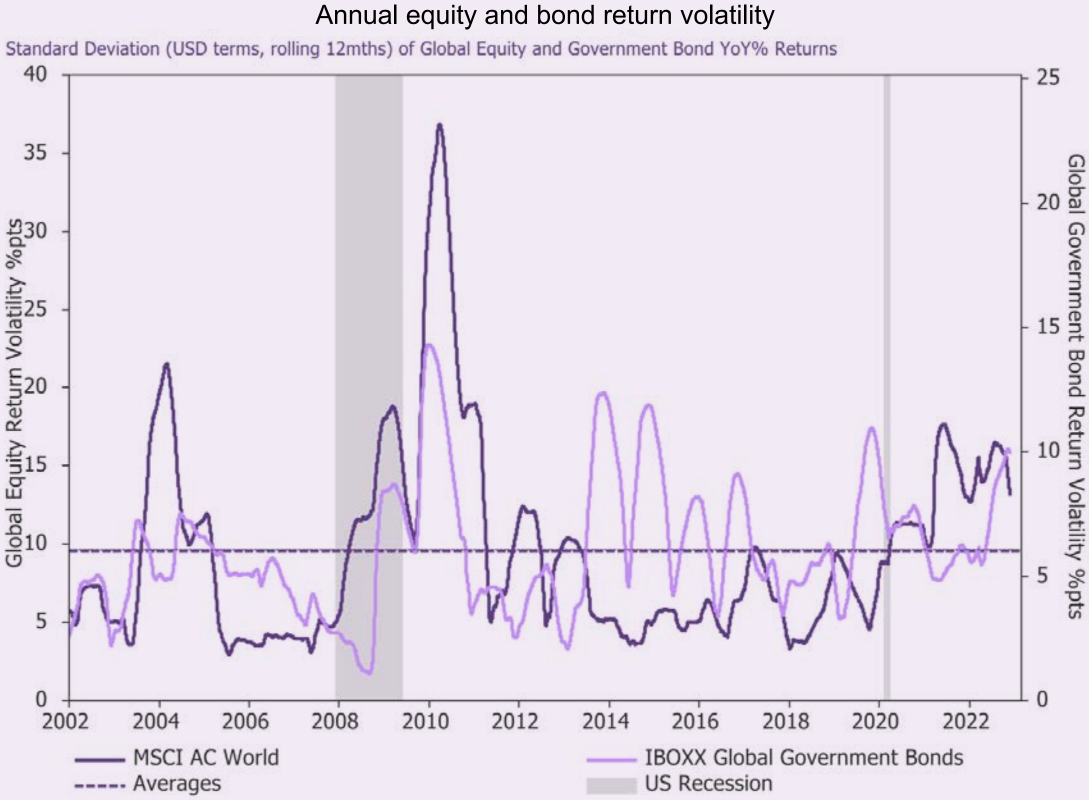
At the other end of the spectrum is India, which already has a significant share of its total spending (as a percentage of GDP) on consumption, but the key positive driver for further investment alpha is that India's per capita income has significant upside to come. Roughly speaking, India's consumerism prospects are lagging China's development by about 15 years (judging by India's per capita income today, which is similar to where China was about 15 years ago, based on IMF data). E-commerce activities will help in India's development and growth as platforms tend to enable high-and low-income households to push their consumer dollars further.

With greater volatility is China still investable?

Navigating greater volatility should push investors toward longer-term opportunities

Since 2021 the volatility in global equity returns has surged to its highest levels since the painful debt de-leveraging period that unfolded over the years after the recession and 2008-09 Global Financial Crisis (GFC) (see Figure 21). More recently, the volatility in global government bond returns has risen back to the levels seen just before the COVID-driven global recession, and is now in the neighbourhood of the volatility experienced during the 2013 'taper tantrum' (where financial markets reacted badly to the tightening in monetary conditions by the US Fed).

Figure 21: Annual volatility in the returns from global equities and bonds



Source: Refinitiv Datastream, November 2022

The increase in global volatility that investors are being forced to navigate likely reflects several forces:

- Firstly, the very challenging economic environment, where financial markets have gyrated rapidly through the post-COVID recovery into the very high inflation of 2022, where there has been significant increases in interest rates, as global central banks fight inflation, and renewed recession fears.

- Secondly, geopolitical risks have increased significantly with the deteriorating relationship between the US and China, and more importantly, with the Russia-Ukraine invasion. The latter has added to global inflation pressures, especially across Europe, and may result in further push-backs against globalisation with countries considering more supply-chain onshoring.

With possibly long-lasting volatility, and higher costs of capital, investors should focus more attention on long-term investment themes with positive trend drivers

Many of these forces driving greater volatility may last longer than anticipated, and could signal the end of the so-called 'Great Moderation'. We believe that the most prudent investment strategy to navigate this environment is for investors to lengthen their investment horizon and consider some of the structural themes that can drive returns over the years ahead.

Longer-term investment themes have a greater chance of giving investors some insulation from the often short-termism of markets and near-term shocks. Many of the structural investment themes we have highlighted have managed to sustain many years of outperformance over the broader equity market.

We believe that global equity markets are progressing through a bottoming process, however the adjustment is proving volatile. As cyclical indicators start to become more attractive, better entry-points for investors should appear.

We have a positive view on Developed Market equities, dominated by the US

We believe that the global investment environment is transitioning through a ‘Great Decoupling’ where countries that are best able to bring down inflation over time can benefit from stronger than otherwise earnings growth and equity performance.

As such, into Q4 2022 we had become positive on the equity outlook across developed markets, especially the US, as its labour market and growth are holding-up better than anticipated, and there is stronger evidence that inflation has peaked. In contrast, Europe remains our least favoured region, as its adverse stagflation forces remain acute, and the likelihood of a painful recession is greater than that for the US.

We believe China is investable, and have moved to a positive view on equities across China and Asia

We believe China is investable, and have moved to a positive view on China’s equities as further policy stimulus should underpin stronger growth next year. China’s real-estate sector debt deleveraging appears to be in a bottoming phase, along with house sales, and the sector should benefit further from the raft of policy supports announced in November 2022 (focused on financing for developers and stimulating stronger credit growth for households).

Near-term adjustments are likely to be volatile however

Notwithstanding our positive view, the easing in China’s COVID control policies will be slow and likely volatile for investors, as policymakers navigate the delicate balance of stresses on the health system with reopening and social unrest against COVID restrictions. Looking beyond near-term stress, China’s equity valuations are attractive, and further policy stimulus coupled with a gradual reopening are key ingredients that should result in significantly stronger earnings growth next year.

The outlook is also positive for Asia, with valuations (for MSCI Asia ex Japan) even lower than China, while growth has held-up better than anticipated, in part because the strong USD has improved export competitiveness.

Many of our global structural investment themes are applicable and relevant to China, where these themes are playing out prominently

Some investors have become more bearish on China’s longer-term outlook after the 20th Party Congress (October 2022), with the belief that the on-going pursuit of ‘common prosperity’ by policymakers implies that growth is no longer a priority.

We nonetheless remain positive on China as a long-term investment destination in part because policymakers have also reemphasised the importance of driving higher per capita incomes over time to improve wealth and welfare.

If China can sustain the growth of its per capita income over time (which is what ‘common prosperity’ looks to achieve), then this may ultimately prove more important to its equity market performance than specific GDP targets per se (e.g as Figure 22 shows the trend improvement in the performance of China’s growth stocks has correlated with per capita income, even with falling GDP growth).

Figure 22: China's Growth Outperformance over Value stocks has correlated positively with Income per capita trends

Source: Refinitiv Datastream, November 2022

Furthermore, several of the structural investment themes we highlight in this paper are directly applicable to China. For example, China features prominently in four of the structural themes:

- **Changing Consumer Behaviour**: as higher per capita incomes improve in China, living standards rise, and this drives greater consumerism;
- **Healthcare Needs**: China's drive for enhanced social welfare over time is likely to foster greater per capita spending on healthcare;
- **Climate Protection and Great Power Competition**: as China places more importance on 'comprehensive national security' it is likely to create longer-term investment opportunities across renewables (to enhance energy security) and higher-value added manufacturing (to help meet onshoring demands and defend supply-chains).

In particular, with the signals emanating from China's National People's Congress (NPC) in October 2022, the relevance of the Great Power Competition theme has only grown in prominence. This will accelerate a new era of policy making in China and will further expand the investment opportunity sets linked to this development.

The prospect of China's greater focus on domestic resources, to enhance national security, fits with our Great Decoupling thesis, as China's economy pivots to extract further gains in income over time from higher-value added domestic production, and more protectionism of supply-chains, as it looks to build economic resilience.