Premia Partners

WHERE TO FIND GROWTH:

Tailwinds from Asia Megatrends & Playbook to participate in Asia innovations and Technology-enabled Productivity Growth

JAN 2021

Contents

Executive Summary

Megatrends are powerful, transformative forces that drive innovations, redefine business models, change human behaviours, and ultimately shape the future. Rather than simply witnessing megatrends unfold in real life, or looking at them from socio-economic or anthropological points of view, investors especially those with staying power and long investment horizon are increasingly keen to map such into their investment strategies also. The much sought-after Yale Endowment approach of allocating more to alternatives, perhaps rather than a shift from conventional geography-centric or factor-based asset allocation models, can be considered as a more holistic long term investing approach with megatrends and paradigm shifts in mind. It offers investors the choice to participate in the exciting innovations, breakthroughs and progresses from structural changes, and one that generates alpha for investors through the passage of time.

In Asia, innovative leaders have been disrupting the productivity deadlock, powering sustainable growth through technology, and leveraging on the demographic tailwinds of the region – across 5G, cloud computing, biotech, enterprise digitalization, robotic automation, and more. However, the Asia ETF market is still constrained by mainstream market capitalization-based approaches with few efficient tools to position for secular growth trends in contrary to the developed markets.

With Asia standing out as the front-runner amid the global low growth environment, having an efficient investment solution for Asia megatrends becomes more important than ever. In this paper, we identified the megatrend-driven investable themes in Asia and discussed how we aim to fill the gap with the Premia FactSet Asia Innovative Technology Index, which breaks away from the conventional GICS sector mindset and re-think "innovative technology" in a more holistic approach leveraging FactSet Revere Business and Industry Classification System (RBICS). This Asia Innovative Technology strategy offers a diversified, multi-theme growth exposure to Asia innovative leaders and creates an agile building block for investors looking to fit such strategy into their portfolio allocations. The later chapters of the paper aim to further empower readers with a playbook to position ahead for tomorrow by sharing use cases of how the thematic growth building block can fit into broader portfolio strategies.

> We see the need to evolve from conventional geography centric or factor-based asset allocation models to sector and **megatrend-minded** models to capture **secular alpha** from **structural changes**.

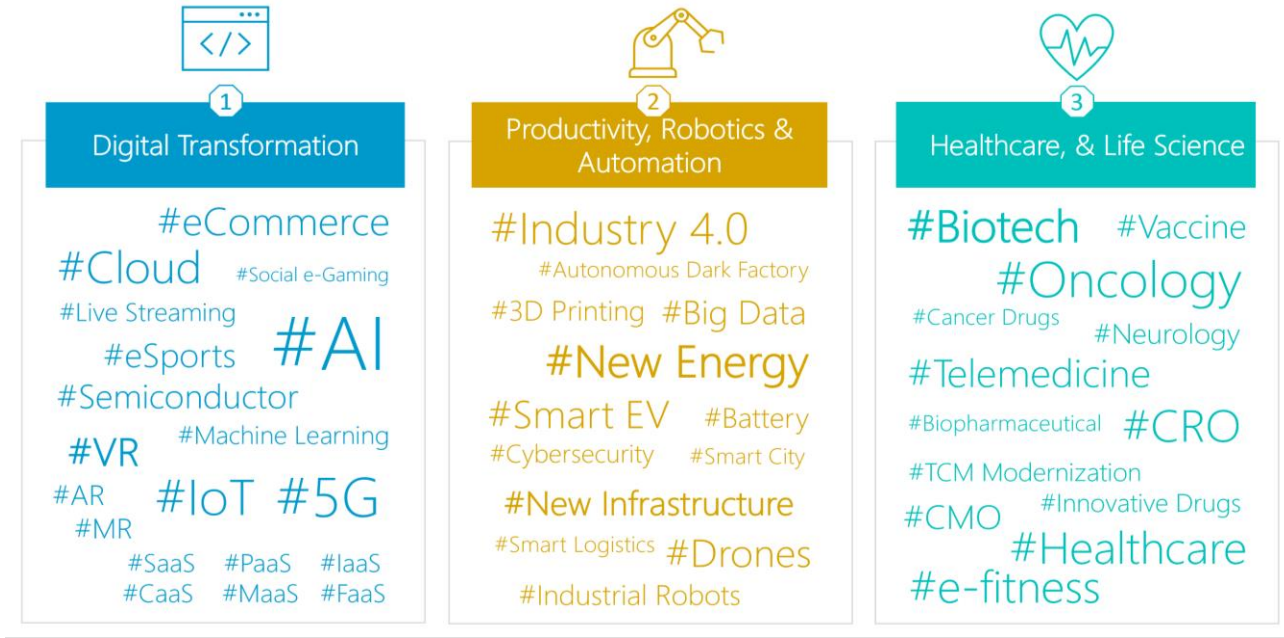
Background

With improved technology and availability of data, thematic investing has grown rapidly in recent years. While the exact definition may vary across the investing community, the overall assets in thematic investing has been surging. Morningstar research indicated that collective assets under management in thematic funds grew nearly threefold to approximately $195 billion worldwide by the end of 2019 from $75 billion three years ago[1].

This is unsurprising. Successful long-term investors including private equity and venture capital funds long have been pursuing secular alpha from structural changes driven by megatrends – and "be a friend of time" as a renowned Asian investor famously said. The genesis of Premia FactSet Asia Innovative Technology Index arose from a simple investor questions: "What would be the Asia-equivalent exposure of Nasdaq 100 to capture the enormous growth opportunities across Asia?" With that in mind, we examined the major megatrends and actors that we believe are driving innovations and making material impacts on social landscape, economic productivity, and regional growth in Asia. In particularly, we then

[1] Morningstar, 3 Takeaways From Our Look at the Global Thematic Funds Landscape, 2020

identified the three most prominent, technology-enabled investable overarching themes with extraordinary growth potential given the demographic and socio-economic trajectory in Asia:



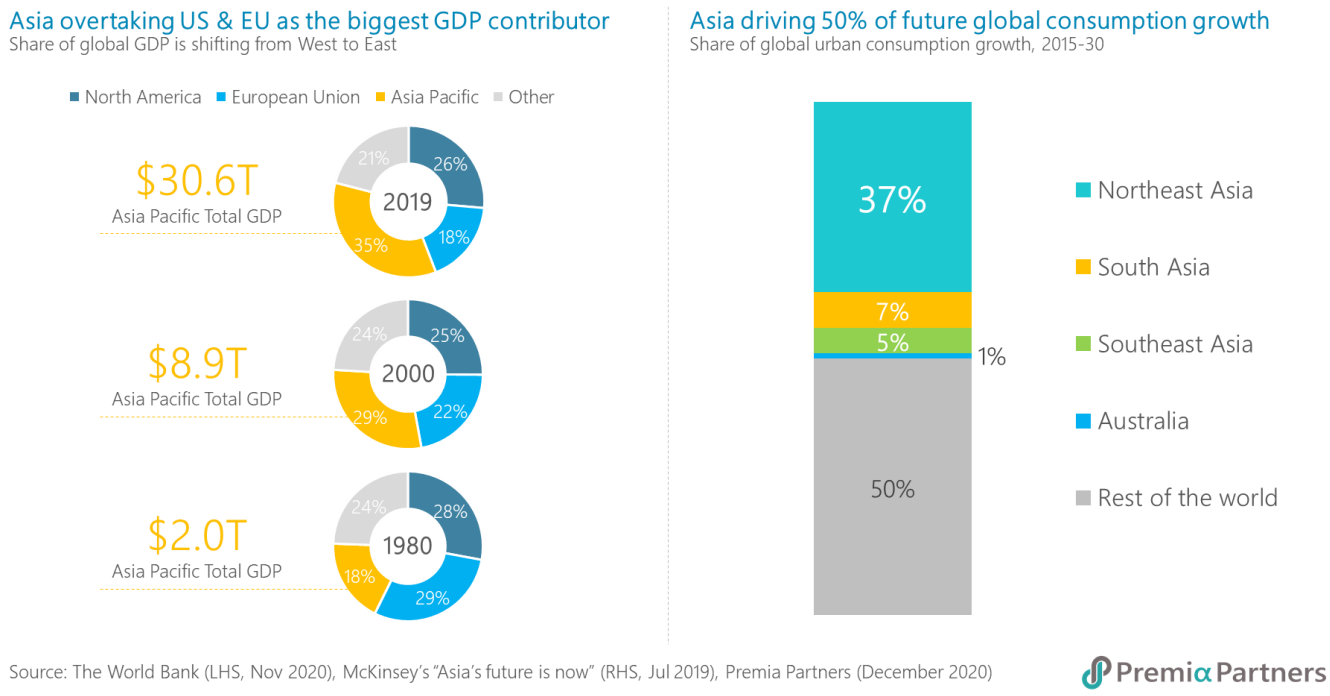
Using FactSet's genomic approach of industry classification based on companies' revenue exposure to the innovative sectors, it is possible to identify the Asia-based technology-enabled innovative leaders and analyze their fundamentals in a rule-based systematic manner. We believe this approach would be more appropriate for growth opportunities compared to the broad Asia equity market over the long term. Thematic investing itself is not completely novel in Asia as many active managers often have multiple themes at play in their portfolio; yet an efficient, rules-based index strategy designed specifically to capture beneficiaries of the megatrends is relatively new.

In this collaborative effort, we aim to create an Asia complement to global growth portfolios, and an attractive alternative to investors do not wish to rely solely on regional beta or China funds for their Asia allocations, and how such thematic strategy can fit into portfolio constructions.

Chapter 1: Where to find growth?
Secular growth opportunities from megatrends in Asia

Where to find growth has become ever more important in the current slowbalisation environment as the Economist aptly put it. While megatrends powered by innovations and technology-enabled transformations have been increasingly referenced as significant forces that one should not overlook, COVID and the unprecedented global events in the last year further strengthened the narratives. For investors, other than living through these megatrends every day, it is also a very attractive window in time to keep track of beneficiaries of these megatrends and position for investment opportunities early accordingly.

Figure 1: Global economic power continues to shift from West to East



Source: The World Bank (LHS, Nov 2020), McKinsey's "Asia's future is now" (RHS, Jul 2019), Premia Partners (December 2020)

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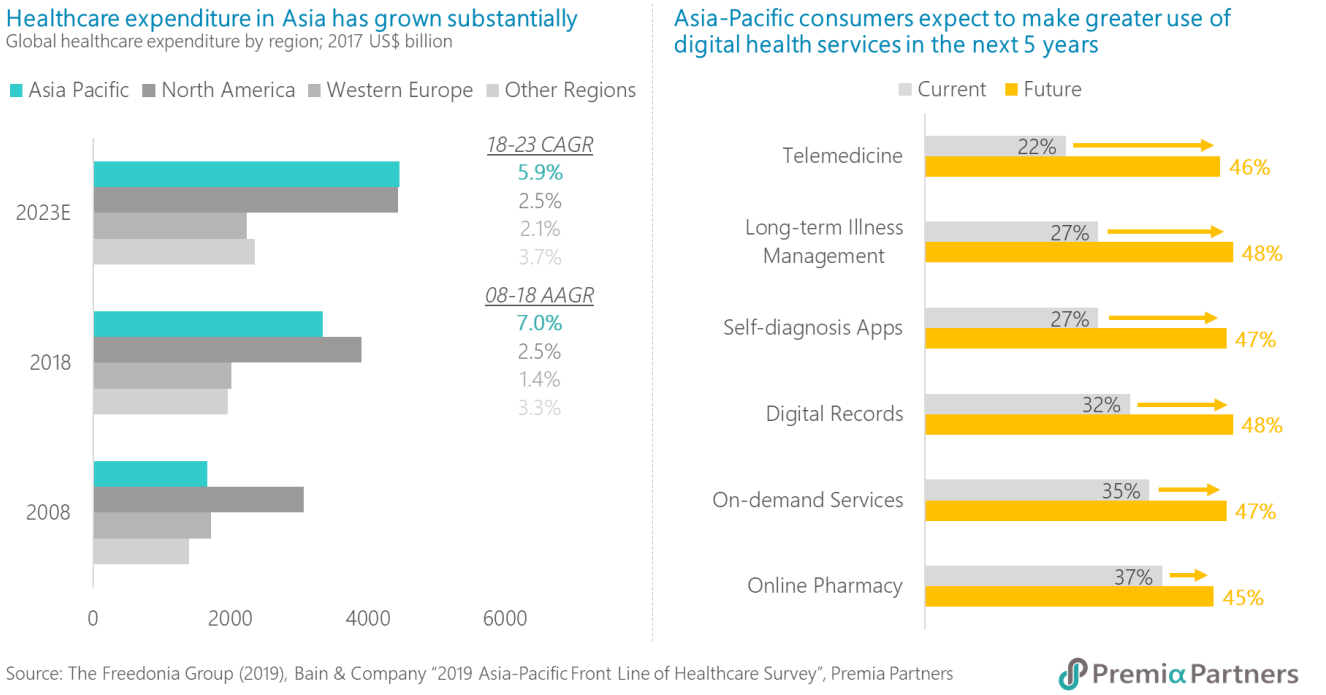
This backdrop fuels the genesis of our Asia Innovative Technology Strategy – as an efficient, transparent way for investors to participate in the megatrend opportunities and build positions in the innovative leaders from Asia early. In the context of this paper, we would encourage to frame the thinking about megatrends toward the trends that ultimately create lasting material impact on economic values, namely:

1. Emerging Economies in the East
    - Share of global GDP is shifting from the West to the East
    - Asia transforming from cheap manufacturing bases to homes of innovation hubs
    - Asia accounting for nearly 80% of global economic growth and 85% of growth in global consumption
2. Social and Demographic Changes
    - An aging population with lowering birth rates has led to a reduction in active workforce
    - Improved standard of living and increase in healthcare spending
    - Changes in social behaviour, accelerated by COVID
3. Environmental Challenges
    - Increasing awareness on climate changes due to both external scrutiny and growing consciousness
    - Government initiatives and policy supports in attempt to reduce carbon footprint and encourage the use of clean energy
4. Technological Breakthroughs
    - New innovations and developments in processing power (faster), precision (more accurate) and materials (better fit)
    - Hyper-connectivity of people (social media) and things (IoT)

While technological advancement is arguably the backbone of all these transformational impacts, we increasingly find that technology has become an enabler, a language that drives the success of leaders across sectors. As investors, it is thus imperative that we do not limit ourselves to the technology sector alone as the change agent in the innovation space, but look at technology as the key to unlock the enormous opportunities that drive Asia and global productivity growth in the coming decades. While some megatrends are global, we also need to look through localized lens for investable themes that are particularly relevant in Asia and instrumental in value creation. This is an evolving journey and some of the trending themes include:

- Consumer preferences in online activities changing the supply chains
- Healthcare improvements, new drug discovery
- Internet of things driving connected living
- Smart cities and new infrastructure upgrade
- Automation and advanced manufacturing to replace repetitive labour work
- Improved standards of living with robotics & AI
- Shift from oil and coal to clean energy
- Encouraged usage of electrical vehicles and solar panels

Figure 2: Asia's emerging needs of convenience and ownership of their healthcare



Source: The Freedonia Group (2019), Bain & Company "2019 Asia-Pacific Front Line of Healthcare Survey", Premia Partners

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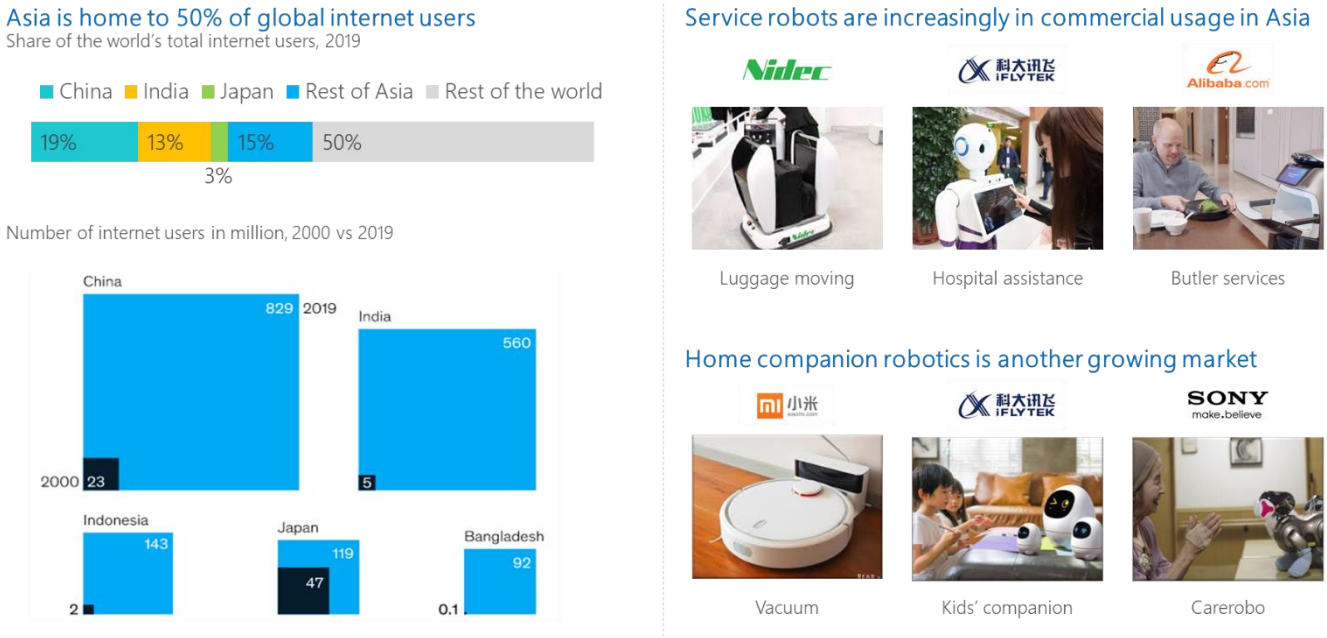
Figure 3: Hyper-connectivity of people and things by innovations in AI, robotics & IoT



Source: McKinsey's "Asia's future is now" (LHS, Jul 2019), Premia Partners (December 2020)

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Chapter 2: Re-thinking the "Innovative Technology" exposure – Breaking away from the confine of traditional GICS sectors and the Genesis of Asia Innovative Technology (AIT)

While we recognize that innovation is increasingly a key element for economic growth globally, it is a game changing in Asia especially China that it is no longer about cheap manufacturing hubs. Inarguably, this part of the world benefited from globalization, copied best practices, and borrowed technologies from the western world to expedite growth in the last century. However, this is no longer the case - it is doubtless to admit the new era is not about copying but innovating - more and more Asia born companies and unicorns are leading technology innovations across various sectors on the world stage.

With the shift from copied-in-China to made-in-China and now innovate-from-China, the market saw strong inflows into China tech stocks and internet funds. We believe this emerging secular trend is not about China only, nor should it be limited to the traditional definition of technology industry or merely internet companies like the BATs (Baidu, Alibaba, and Tencent). Unfortunately, there was few easy and efficient way to build an Asia Innovation exposure. In fact, if the scope is narrowly defined with only those under the Global Industry Classification Standards (GICS) technology sector, one would invariably miss a massive set of leading innovative leaders in electric vehicles, virtual reality/ augmented reality, biotech and life sciences, industrial automation sectors as they are not labelled as Technology sector companies, to name a few. Does it mean that only fundamental active approach would work? No, we believe given the availability of new information from public data sets, it would be a much more transparent and disciplined process using the rule-based systematic approach. After discussions with clients and FactSet, followed by months of research and analyses, we launch the Premia FactSet Asia Innovative Technology Index.

What would be missing if you are getting the "Technology" industry exposure?

Prior to the Global Industry Classification Standards (GICS) reclassification taken place in 2018, which was hailed as one of the biggest changes to stock classifications since the 11-sector system was put into place more than 20 years ago, traditional indexing strategies following either the Dow Jones or MSCI indices would typically take the GICS "Information Technology" sector for technology exposure. Part of the reason for the GICS reclassification was that the S&P IT sector is getting too big and some companies

like Facebook and Google have emerged to resemble "Communications" firms rather than just IT, while another factor was that some Consumer Discretionary company, e-commerce in particular, could now finally be recognized in IT or Communications.

Nevertheless, a one-to-one mapping classification system is still far from perfect. In today's world, technology is no longer a vertical industry, but rather a horizontal enabler used in almost every dimension driving innovations from retail consumption to industrial automation and rocket sciences. As the economic theory suggests, technology is the ultimate driver to total productivity, and this definition of "technology" is sure much wider than the mere GICS classification.

To illustrate, we first take the US as an example, what would still be missed if one were to invest into the IT and/or the Communications sector?

Figure 4: Top 10 Constituents of the IT and Communications GICS Sectors in the US

GICS Sector = Information Technology		GICS Sector = Communication Services	
#	Company	#	Company
1	APPLE	1	FACEBOOK
2	MICROSOFT	2	ALPHABET A
3	VISA	3	ALPHABET C
4	NVIDIA	4	WALT DISNEY
5	MASTERCARD	5	VERIZON
6	PAYPAL HOLDINGS	6	COMCAST
7	ADOBE	7	NETFLIX
8	INTEL CORP	8	AT&T
9	SALESFORCE.COM	9	CHARTER COMMUNICATIONS
10	CISCO SYSTEMS	10	T-MOBILE

Examples of the Missed US Innovative Technology Leaders		
TESLA	Industrial	World leading EV and solar energy company
AMAZON	Consumer Discretionary	The largest e-commerce company in the US, leading cloud service provider
ROCKWELL	Industrial	The largest industrial automation company in the US
VERTEX PHARMA	Health Care	Leading US biotech company, World's 50 Most Innovative 2020

Top constituents of MSCI USA Information Technology Index and MSCI USA Communication Services Index respectively.

Source: MSCI, Premia Partners, as of 31/12/2020

Likewise, if one were to invest in a sector index to capture the technology growth in Asia, neither the IT index nor the Communication Services Index provides a full picture. Further, one may also prefer not to have the telecom stocks from the Communications sector as those typically exhibit defensive rather than growth characteristics.

Figure 5: Top 10 Constituents of the IT and Communications GICS Sectors in Asia

GICS Sector = Information Technology		GICS Sector = Communication Services	
#	Company	#	Company
1	TSMC	1	TENCENT
2	SAMSUNG ELECTRONICS	2	SOFTBANK GROUP
3	KEYENCE CORP	3	NINTENDO
4	XIAOMI CORP	4	BAIDU
5	SK HYNIX	5	KDDI
6	INFOSYS	6	NETEASE
7	SAMSUNG ELECTRONICS PREF	7	SOFTBANK CORP
8	TOKYO ELECTRON	8	CHINA MOBILE
9	MURATA MANUFACTURING	9	NAVER
10	HON HAI PRECISION	10	NTT CORP

Examples of the Missed Asia Innovative Technology Leaders

ALIBABA	Consumer Discretionary	Leading e-commerce, fintech and cloud computing player in China
MEITUAN	Consumer Discretionary	Leading food delivery and community services platform in China
PINDUODUO	Consumer Discretionary	Fast growing e-commerce player pioneering in social shopping
JD.COM	Consumer Discretionary	Leading e-commerce player with strong smart logistics capabilities
SONY	Consumer Discretionary	World leading lens, entertainment, e-gaming, and smart home player
NIO	Consumer Discretionary	One of the fastest growing EV start-up in China
FANUC	Industrial	World leading automation and robotics company
CATL	Industrial	Leading EV battery maker - supplier for Tesla, BMW, Honda, etc
TAKEDA	Health Care	Leading R&D-driven pharmaceutical company
WUXI BIOLOGICS	Health Care	Leading clinical research organization (CRO) provider
CELLTRION	Health Care	Leading biotech firm that launched the world's first "antibody biosimilar"

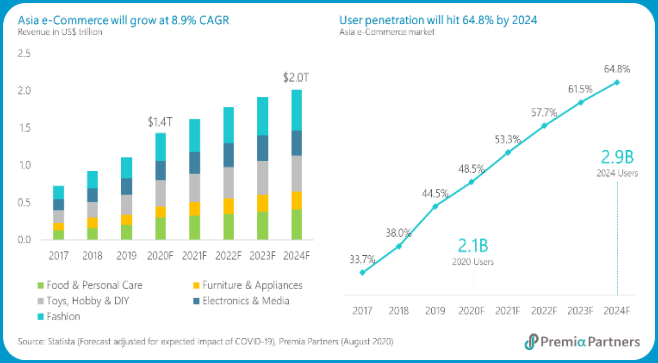
Top constituents of MSCI AC Asia Information Technology Index and MSCI AC Asia Pacific Communication Services Index respectively.

Source: MSCI, Premia Partners, as of 31/12/2020

COVID-acceleration as an example:
Technology as enabler across industry applications

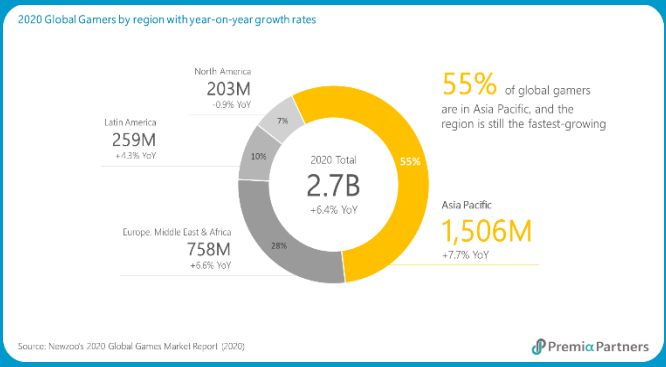
- **E-Commerce** – Numerous physical stores, malls, wet markets had to shut down during COVID. E-commerce is one sector we observed faster and most significant behavioural changes as a lot of consumption have gone from offline to online.

Figure 6: Booming e-Commerce in Asia



- **Home Entertainment & eSports** – In a socially-distanced world, many entertainment and family activities turned from offline to online. **Nintendo** is one of the beneficiaries that saw sharp surge in demand during COVID-19 pandemic. E-Gaming and e-Fitness has gained popularity across age groups and becoming regular activities.

Figure 7: Largest and fastest-growing gamer base



- **5G, Cloud & Enterprise Digitalization** – The COVID pandemic accelerated digital transformation in corporate sectors and across enterprise applications. Similar to Zoom's surge in the US, Alibaba's DingTalk, Tencent Conference and WeChat Work all made swift adaptation to enable online communication for various corporate sectors. With development in 5G and cloud PaaS (platform-as-a-service), we see strong tailwinds in enterprise digitalization, especially with the COVID-accelerated change in behaviour in place.

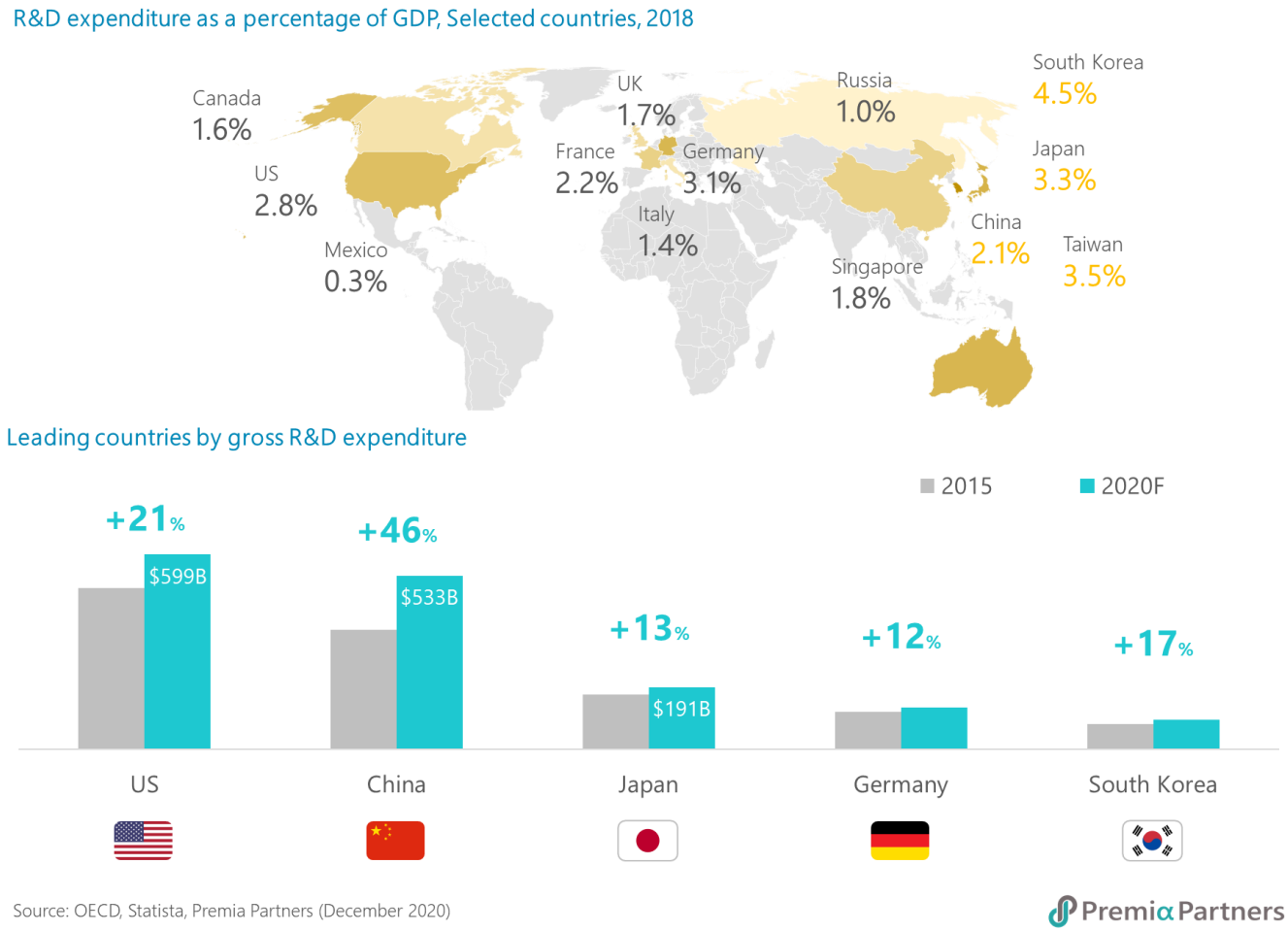
- **AI & Robotic Automation & Smart EVs** – Artificial Intelligence (AI) and robotics made significant contribution during the COVID-19 outbreak. The technologies combined well-resembled mind and body of human forces and were deployed for monitoring, delivering the critical supplies, spraying disinfectants, and much more. Meanwhile, carbon neutral pledge by China and Asian countries also provides strong tailwinds for the green economy and smart electrical vehicle (EV) leaders in Asia, which have been benefiting from demographic scale economies, advancement in AI applications and ability to integrate supply chains with market needs quickly.

- **Industrial IoT –** technology has enabled advancements in industrial logistics which can be then utilized by other industries from retailing to energy. Innovation leaders today no longer participate in a single industry. For instance, **JD.com** (Consumer Discretionary) leveraged its strong supply chain networks and automated warehouses during the Wuhan lockdown, remotely managed all the logistic optimizations from its Beijing headquarter and mobilized autonomous driving robot for medical supply delivery in the city.

Chapter 3: An agile, multi-theme growth strategy for Asia

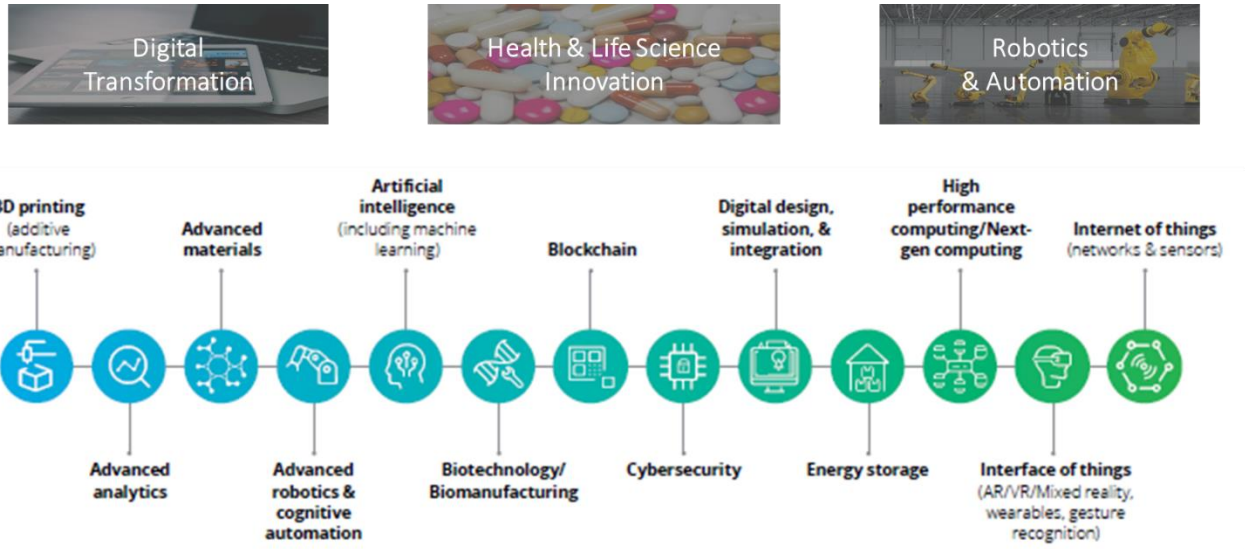
The world has been changing rapidly from an era of trade globalization to increasingly seeking innovative technology developments for productivity growth. Outside of the United States, Asian countries are among the highest ranks globally in terms of R&D investments both as a percentage of GDP and in absolute dollar terms.

Figure 8: A Global Look at Global R&D Investments



With the capabilities from FactSet's genomic classification network and RBICS system, we eventually clustered the investable themes into three broad categories, which then expanded to over 130 granular levels of industry exposure that are deemed to be beneficiaries of technology innovations in Asia.

Figure 9: Premia Asia Innovative Technology ETF (3181 / 9181 HK) targeting 3 core themes:



Source: FactSet, Premia Partners

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How FactSet RBICS better capture technology-enabled innovation leaders vs. a traditional lens of GICS?

FactSet RBICS is a multi-dimensional classification system with a 14 x 6 matrix structure, where the top level consists of 14 Economy anchor sectors followed by increasingly more granular layers ranging from levels 2 to 6, broken down as Sector, Sub-Sector, Industry Group, Industry, and Sub-Industry, respectively.

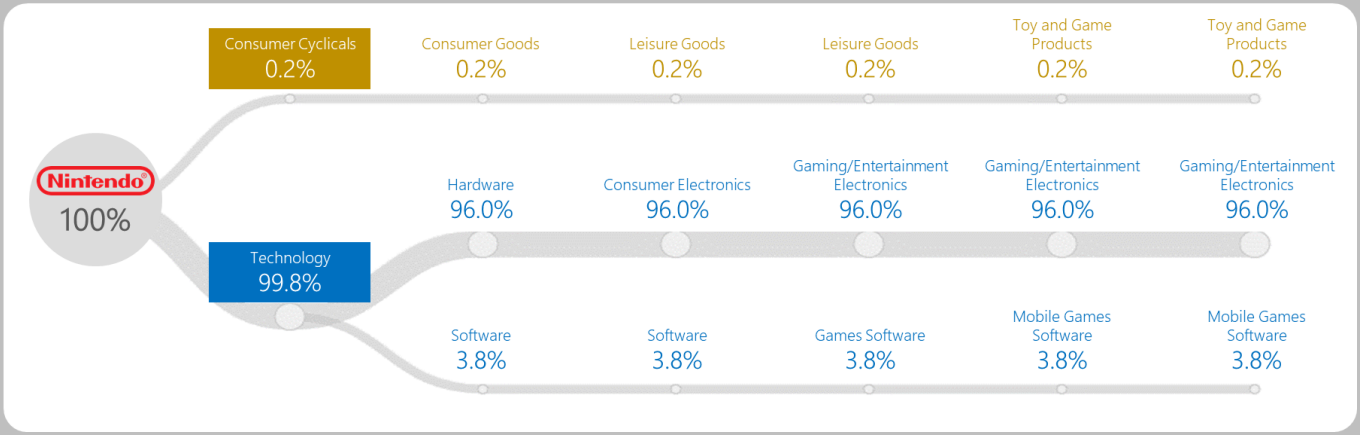
Altogether, RBICS consists of **more than 1,600 sector and industry levels that enable capturing any themes flexibly and accurately.** In addition, RBICS is especially dynamic at levels 5 and 6 where categories are **reviewed and introduced on an annual basis to better reflect breakthrough in new technologies and business models**. Finally, RBICS quantifies a company's business exposure by mapping their % revenues to its primary and ancillary sectors and industries.

Example: Samsung

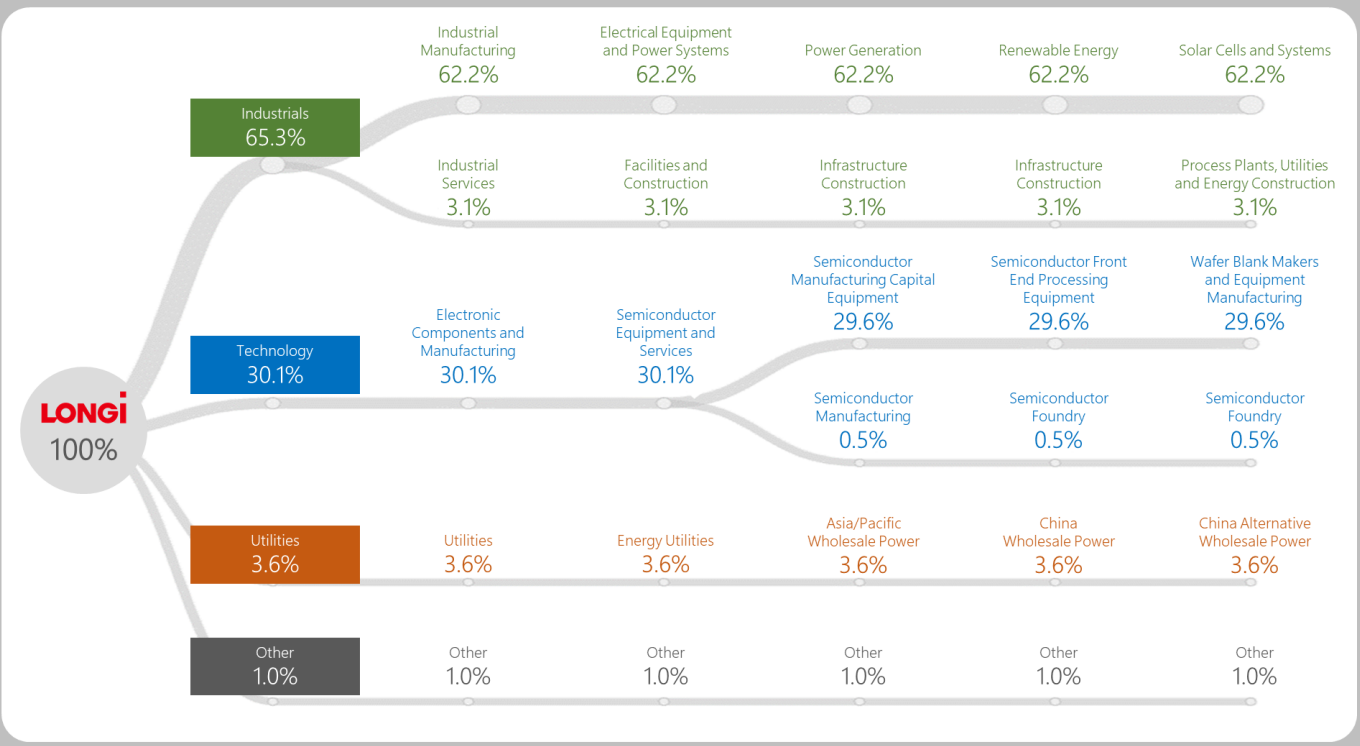
Conventional Classification	RBICS (% Revenues Breakdown)				
Information Technology	Level 1	Technology	Technology	Technology	Consumer Non-Cyclicals
Technology Hardware	Level 2	Hardware	Hardware	Hardware	Household Products
Hardware Storage & Peripherals	Level 3	Consumer Electronics	Computer Hardware & Storage	Communications Equipment	Appliances & Tools
	Level 4	Automotive & Marine Electronics	Hardware Components	Wireless Mobile Equipment	Div. Appliances & Tools
	Level 5	Automotive & Marine Electronics	Flat Panel Display Equipment	Smart Phone	Div. Appliances & Tools
	Level 6	Automotive & Marine Electronics	Flat Panel Display Equipment	Smart Phone	Div. Appliances & Tools
		3.90%	12.10%	41.56%	25.16%

Examples for illustration:
What the RBICS breakdown tell about a company?

Example: Nintendo



Example: LONGi

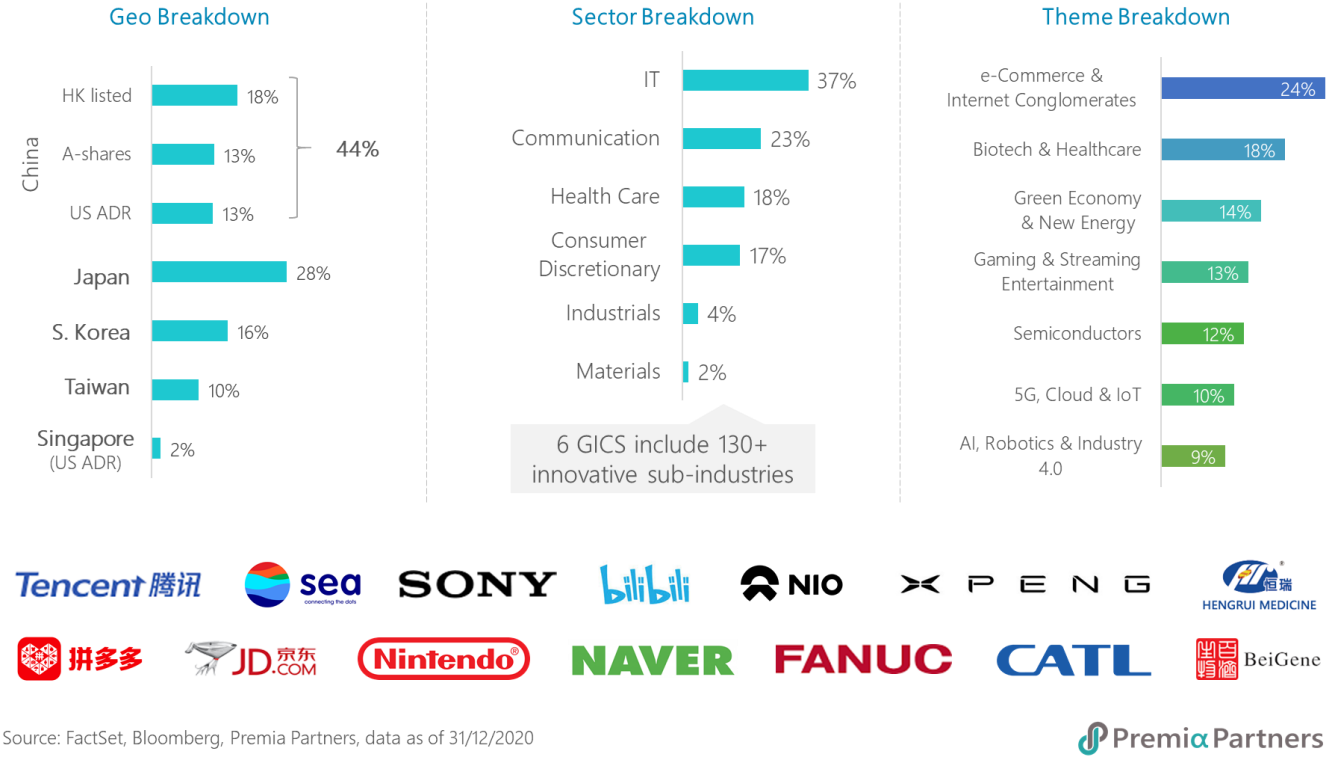


Source: FactSet; the revenue breakdown presented are historical figures, for illustration only

How does the Asia Innovative Technology Index basket look like?

The index basket comprises 50 companies with significant revenue exposure spanning across over 130 innovative sectors and exhibiting strong growth prospects from the pan-Asia universe.

Figure 10: Pan-Asia coverage of the largest innovative companies



Source: FactSet, Bloomberg, Premia Partners, data as of 31/12/2020

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While the basket is primarily composed of companies domiciled in China, Taiwan, Japan and South Korea, we do expect to see a geographically more diversified basket as leaders from India, South East Asia to emerge as the methodology does not restrict inclusion from other Asia markets. As of year-end 2020, the basket of innovative leaders on average has stellar forward sales growth outlook of over 17% and an R&D spending of 9% according to FactSet statistics. In aggregate, the basket also has an earnings-per-share (EPS) growth of 16% and a return-on-equity (ROE) of 11%.

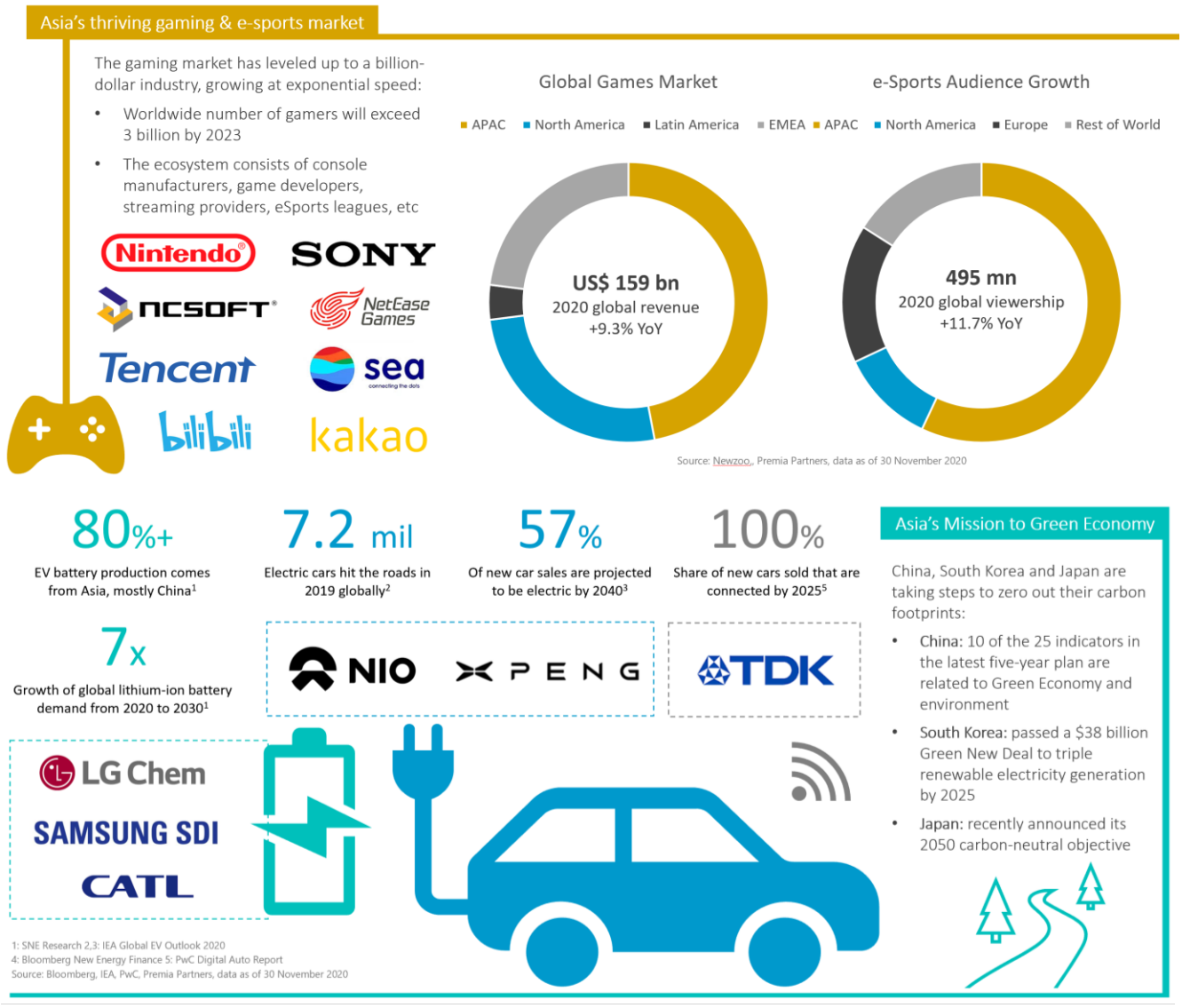
9%	17%	16%	11%
R&D to Sales	Sales Growth	Earnings Growth	Return-on-Equity

Most of the constituents have been silver lining beneficiaries through COVID as the rise in healthcare demand and work from home phenomenon globally exemplified the advantages of the constituents in

the rest of Asia and globally – for instance in addition to China tech giants Tencent, Alibaba, JD, Meituan that a lot of investors are familiar with, the strategy also covers:

- **From Korea:** Celltrion, NCSoft, Naver, Kakao that lead biotech, gaming and internet
- **From Japan:** Ninendo, Sony, Z Corp (Yahoo Japan and Line), Nexon and Fanuc that leads gaming, internet, and industrial automation
- **From Taiwan:** TSMC, UMC, MediaTek that lead semiconductor
- **From China:** Pinduoduo, CATL, Longi Green Technology, Jiangsu Hengrui that leads social ecommerce, EV battery, solar energy and pharmaceutical and in China, etc.
- **From ASEAN:** Sea Ltd. that leads e-commerce and gaming / eSports

It is thus perhaps unsurprising that all the AIT index constituents have long-term asset owners of sovereign wealth funds and leading private equity firms as their top holders as of Dec 31st, 2020.

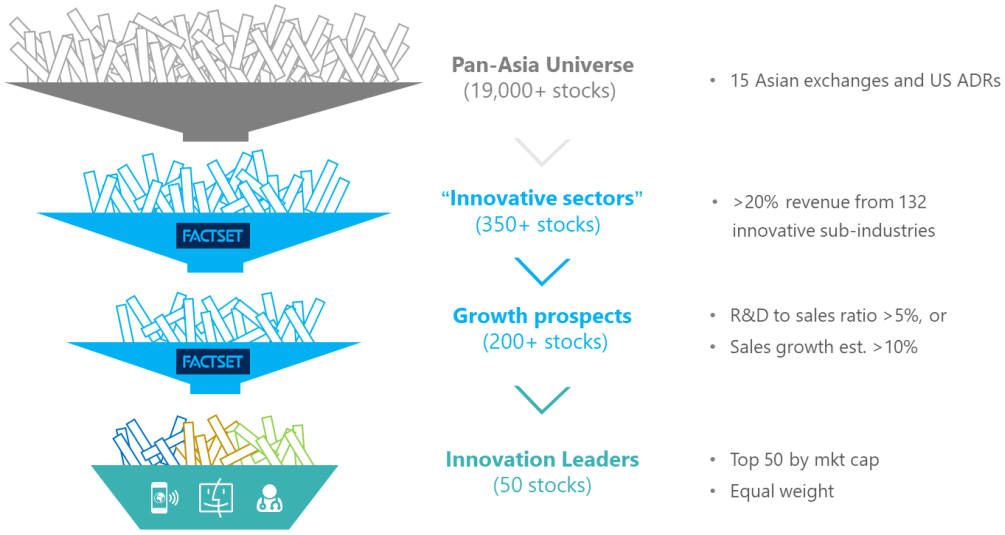


Invest in Asia innovations early like PE and VC investors: methodology behind the systematic, rules-based approach with daily liquidity

Investing in technology-enabled innovators is much more daunting tasks than a simplistic sector focus approach. This strategy is not only looking for companies that are relevant to the innovative exposures, but more importantly companies that are meaningful drivers or beneficiaries of innovative technologies such that their relevance would be materialized and translated to sustainable earnings growth and outperformance compared to the broad region in the longer term.

Thanks to availability of data and the FactSet proprietary RBICS system, rather than having a fleet of research analysts conducting fundamental research, we are able to efficiently screen through the tons of data and financial information across ~19,000 companies listed in 15 exchanges in Asia and also in the US with Asian ADR listings, to identify companies that have more than 20% revenue in one of the 130+ innovative sub-sectors, followed by ranking these companies by R&D investments and topline growth prospects in order to screen for companies that are either investing significantly into future growths or expecting to soon capitalize on its innovations. Lastly, we take the top 50 companies by market cap and liquidity. The equal weigh approach intends to focus more on growth for each individual constituent similar to a PE/VC fund, rather than having mega-cap companies dominating the portfolio performance. Meanwhile, it provides a rebalancing discipline every 6 months to take profit and rebuild positions in innovative leaders with robust fundamentals.

Figure 11: A systematic, rules-based approach to innovative technology beneficiaries



Chapter 4: AIT under the spotlight –
A liquid, well-diversified building block for resilient growth and robust performance

How did the Premia FactSet Asia Innovative Technology (AIT) index perform?

Since the index inception, the AIT index has achieved an annualized return of 18.8% and consistently outperformed the broad Asia market (Figure 12). In 2020, the AIT index continued to demonstrate robust growth along with strong resilience in the event of the COVID pandemic, outperforming the MSCI AC Asia Index by a margin of over 40%.

Figure 12: The index outperformed the broad Asia market

Index	1Y Ann Return	3Y Ann Return	5Y Ann Return	Since Inc Return[1]	Since Inc Volatility[1]	Since Inc MDD[1]	Since Inc Return/MDD[1]	Since Inc Sharpe Ratio[1]
Premia FactSet Asia Innovative Tech	61.3%	19.6%	19.4%	18.8%	18.2%	-34.7%	0.54	0.98
MSCI AC Asia	20.9%	7.4%	11.4%	8.2%	14.3%	-30.8%	0.27	0.51

1: Annualized figure from 13/6/2014 to 31/12/2020; Both indexes are net total return in USD. Source: Bloomberg, Premia Partners.

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Compared to the popular alternative of concentrated China technology indexes (Figure 13), the AIT index has also outperformed the CSI Overseas China Internet index on a risk-adjusted basis with much lower volatility and maximum drawdown since the AIT index's inception.

Figure 13: The more diversified mix in AIT outperformed the CSI overseas China Internet Index

Index	3Y Ann Return	5Y Ann Return	Since Inc Return[1]	Since Inc Volatility[1]	Since Inc MDD[1]	Since Inc Return/MDD[1]	Since Inc Sharpe Ratio[1]
Premia FactSet Asia Innovative Tech	19.6%	19.4%	18.8%	18.2%	-34.7%	0.54	0.98
CSI Overseas China Internet	12.1%	16.8%	14.6%	26.0%	-44.4%	0.33	0.53

1: Annualized figure from 13/6/2014 to 31/12/2020; Both indexes are net total return in USD. Source: Bloomberg, Premia Partners.

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Figure 14: Top return contributors in 2H20 and FY20

Ticker	Name	Weight (%)	Domicile	Sector	Total Returns		Contributed Returns	
					2H20	FY20	2H20	FY20
PDD	Pinduoduo	2.26	China	Consumer Discretionary	107%	370%	2.4%	8.4%
601012	LONGi Green Energy	2.44	China	Information Technology	146%	300%	3.5%	7.3%
300750	CATL	2.65	China	Industrials	118%	253%	3.1%	6.7%
1810	Xiaomi	2.50	China	Information Technology	158%	209%	4.0%	5.2%
2303	United Microelectronics	2.11	Taiwan	Information Technology	228%	220%	4.8%	4.7%
006400	Samsung SDI	2.11	Korea	Information Technology	91%	183%	1.9%	3.8%
3690	Meituan	1.94	China	Consumer Discretionary	71%	190%	1.4%	3.7%
035720	Kakao	1.93	Korea	Communication Services	61%	170%	1.2%	3.3%
3659	Nexon	1.90	Japan	Communication Services	36%	132%	0.7%	2.5%
068270	Celltrion	1.95	Korea	Health Care	32%	115%	0.6%	2.2%
BIDU	Baidu	2.76	China	Communication Services	80%	71%	2.2%	2.0%
2308	Delta Electronics	2.11	Taiwan	Information Technology	70%	90%	1.5%	1.9%
036570	NCSoft Corp	2.01	Korea	Communication Services	15%	83%	0.3%	1.7%
2454	MediaTek	1.95	Taiwan	Information Technology	38%	83%	0.7%	1.6%
4519	Chugai Pharmaceutical	2.06	Japan	Health Care	0%	74%	0.0%	1.5%
NIO	*NIO*	*1.86*	*China*	*Consumer Discretionary*	*Constituents entered the AIT basket in the December-2020 rebalancing*			
BILI	*Bilibili*	*2.54*	*China*	*Communication Services*				
SE	*Sea*	*1.98*	*Singapore*	*Communication Services*				
051910	*LG Chem*	*1.81*	*Korea*	*Materials*				
VIPS	*Vipshop*	*2.05*	*China*	*Consumer Discretionary*				
6762	*TDK Corp*	*1.98*	*Japan*	*Information Technology*				
XPEV	*Xpeng*	*1.40*	*China*	*Consumer Discretionary*				

The contributed return is an estimated figure calculated based on each constituent's total returns and its portfolio weighting as of 31/12/2020;
Source: Bloomberg, Premia Partners, data as of 31/12/2020

Tech-bubble or Quality Growth? Innovative companies disrupt their space and generate persistent valuation expansion through time

One question that comes alongside of robust historical performance of technology related themes is always: is this a tech bubble again? How to evaluate innovative growth stocks that appear expensive comparing with incumbent peers? Does value investing exist in the innovative space? Rather than using conventional multiple metrics, we found the PE and VC investing approaches shed intriguing insights.

Using the broad MSCI AC Asia IT index as a proxy owning to its longer index history into the tech bubble that occurred in 1998 through 2000, the price-to-earning (P/E) ratio went from about 25x to over 220x while the trailing earnings per share (EPS) were in fact declining. How about the recent upcycle?

Over the past four years, we have seen 149%, 139%, and 164% total return for the MSCI AC Asia IT, the NASDAQ and the AIT Index, yet the sources of returns are dissimilar for Asia vs. the US (Figure 15). The NASDAQ's total return had been primarily driven by re-valuation of the P/E multiple while earnings had been roughly flat. On the other hand, Asia has witnessed strong earnings growth during the upcycle period. In MSCI AC Asia IT Index's case, earning growth contributed over 60% of the total return. The AIT index pertains sectors more than just IT and less mega-cap concentration compared to the MSCI AC Asia IT Index, and its P/E multiple had grown by roughly 49%. More importantly, average EPS of the AIT index grew by around 78% and contributed over half of the return. As of December-end, the forward P/E of the AIT index is lower than that of the NASDAQ, with its growth perspectives much heathier.

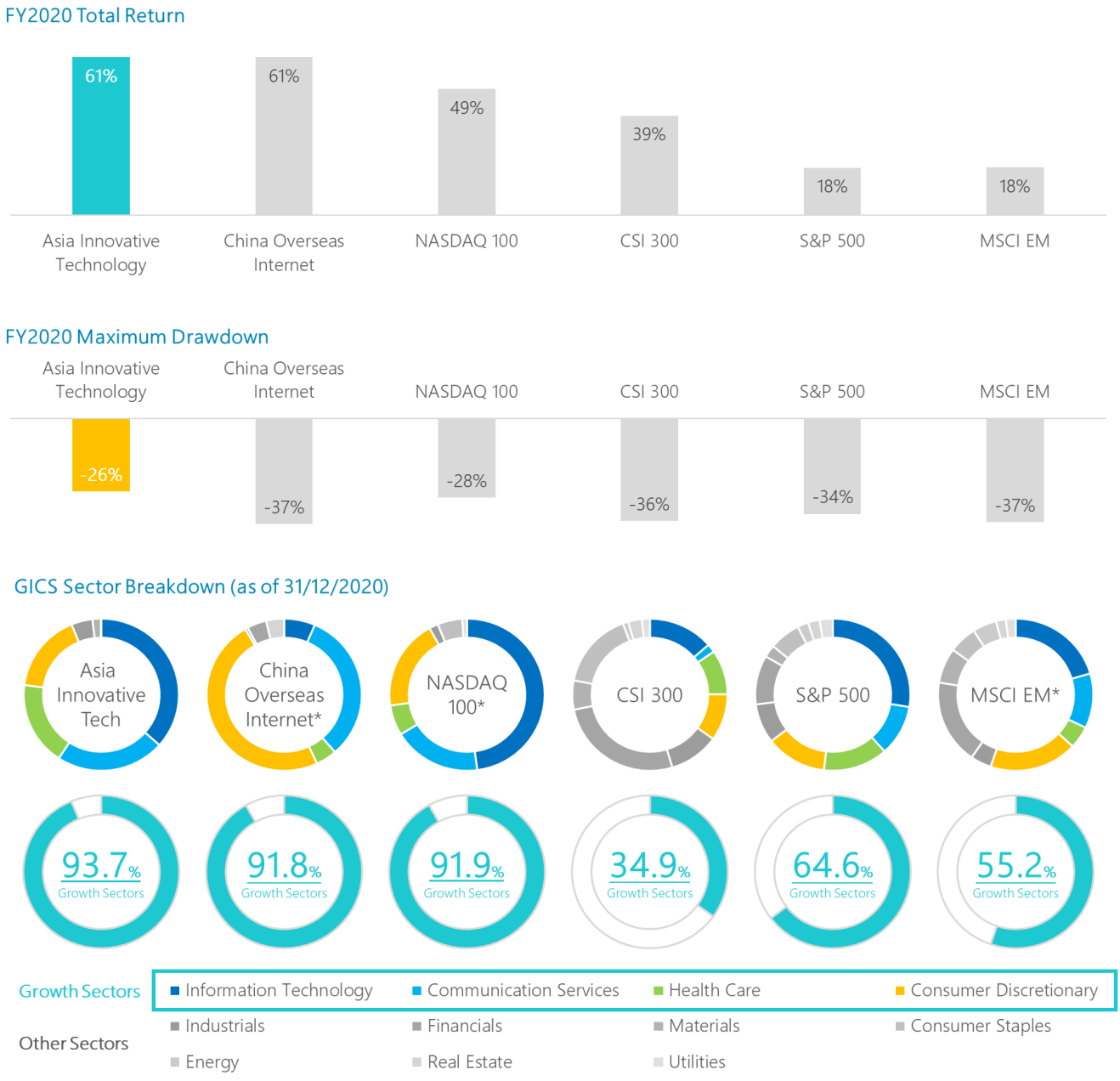
Figure 15: Asia Tech's recent upcycle is backed by robust earnings growth

Total returns based on price changes in USD. Source: Bloomberg, Premia Partners, data as of 31/12/2020

Why diversification is important?

Modern portfolio theory suggests that diversification helps to improve risk-adjusted returns. This holds true for a thematic strategy as well. The AIT strategy encompasses a geographically and sector-wise diversified basket of growth leaders.

Figure 16: AIT – higher return, lower max drawdown with larger growth sector exposure



*Use the sector allocation of KWEB as a proxy to represent the sector breakdown of CSI China Overseas Internet Index; use the sector allocation of QQQ as a proxy to represent the sector breakdown of NASDAQ 100 Index; use the sector allocation of EEM as a proxy to represent the sector breakdown of MSCI EM Index.
Source: Bloomberg, Premia Partners, data as of 31/12/2020

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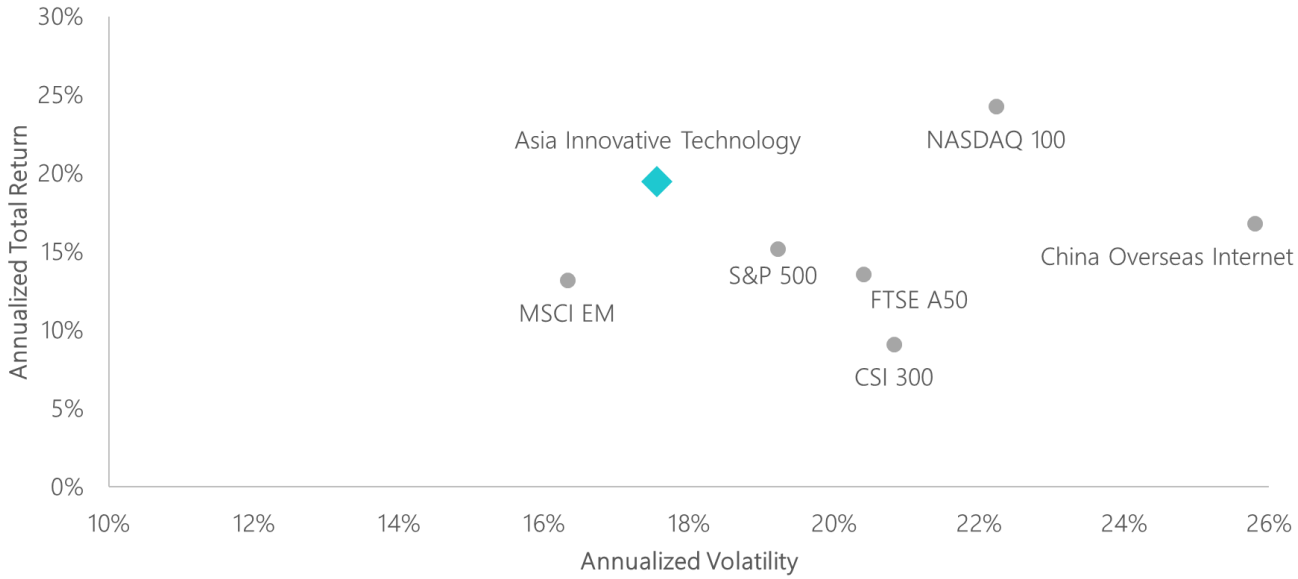
As a result, the strategy not only captured stronger upside growth compared to the broad-based regional benchmarks but was also able to be more resilient in market downturns compared to indexes that tracks only China or more specifically only overseas Chinese internet stocks as we witnessed over the last 12 months with COVID, trade disputes and other geopolitical risks in play. Thus, the robust performance and lower drawdown made the AIT strategy among the best performing Asia-focused growth strategy from a risk-adjusted perspective last year.

A versatile building block for portfolio completion and long-term allocation to innovative technology: Use cases and incorporating AIT into portfolios

By the same school of theory, diversification also adds value to portfolios especially when the asset under examination has demonstrated strong stand-alone risk-adjusted returns and moderate correlations.

Figure 17: 5-year annualized index risk-return profile



Period: 31/12/2015-31/12/2020. Source: Bloomberg, Premia Partners.

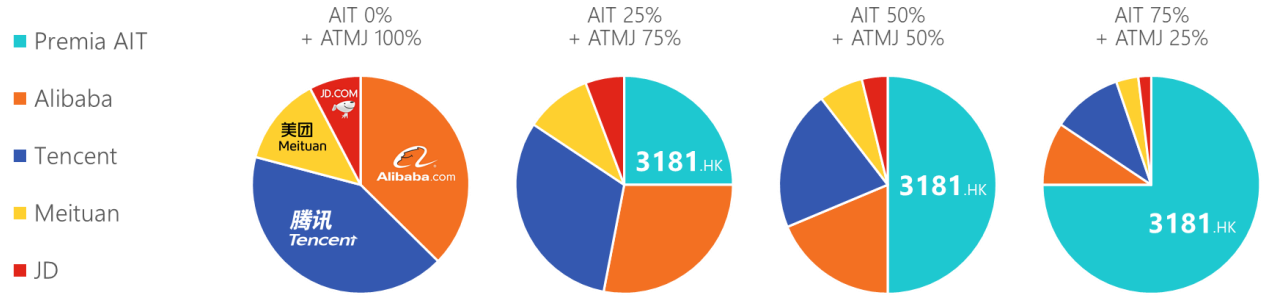
Global investors and asset allocators can consider the AIT strategy for the following portfolio scenarios:

1. A key building block for global growth or Asia growth strategies
2. A complement to active selection of Asia growth stocks
3. A complement to US exposures
4. A complement or replacement to broad Asia or EM equity exposure

As demonstrated in the previous section, the AIT strategy provides a diversified exposure across quality growth innovative sectors, allowing it to achieve both solid historical performance since its inception and strong resilience in the late COVID crisis. For investors actively selecting Asia growth stocks, the AIT strategy can be a good complement for diversification and risk-adjusted return enhancement. In Figure 18, we illustrate a simplified case of how ATMJ (Alibaba, Tencent, Meituan, JD.com) investors could potentially achieve complementary diversification and benefit from adding the AIT strategy into the existing portfolio mix.

Figure 18: Hypothetical Portfolios – Asia Innovative Technology + Cap-weighted ATMJ

Portfolio Composition (as of 31/12/2020)



Performance (31/12/2019-30/11/2020)

	AIT 0%	AIT 25%	AIT 50%	AIT 75%
YTD Return	44%	48%	52%	56%
YTD Volatility	34%	30%	26%	23%
YTD Sharpe Ratio	1.29	1.60	1.97	2.39

*ATMJ portfolio is assumed to be weighted by market capitalization and constructed on 31/12/2019.
Source: Bloomberg, Premia Partners, as of 31/12/2020.

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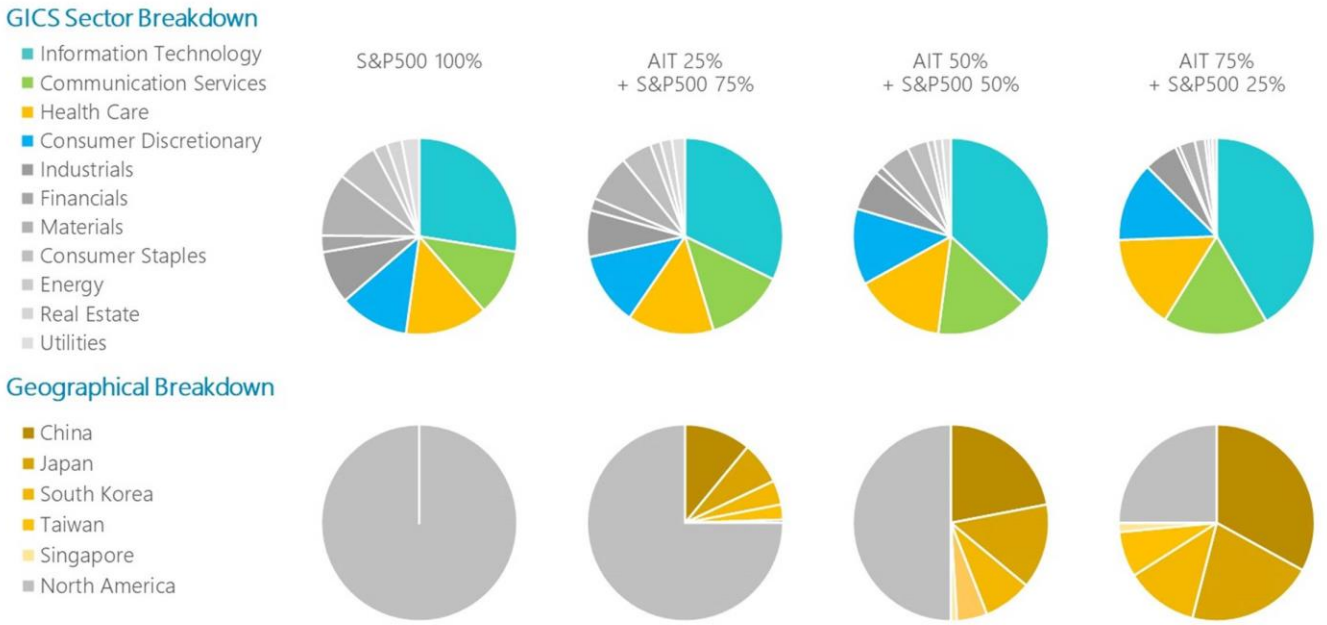
On the other hand, the AIT index provides a quality growth exposure of Asia innovative leaders and can serve as a good source of diversification to investors holding US-centric portfolios. Taking the S&P 500 index as the proxy for one's US exposure, one could achieve a more global growth-oriented sectoral exposure, more diversified geographical exposure and ultimately potentially better total portfolio return and lower risks by adding the AIT building block into the mix (Figure 19).

Figure 19: Hypothetical Portfolios – Asia Innovative Technology + S&P 500



Performance (31/12/2015-31/12/2020)

	AIT 25%	AIT 50%	AIT 75%
5Y Annualized Return	15.3%	15.3%	15.6%
5Y Annualized Volatility	19.1%	18.9%	18.3%
Sharpe Ratio	0.74	0.75	0.79

Source: Bloomberg, Premia Partners, as of 31/12/2020.

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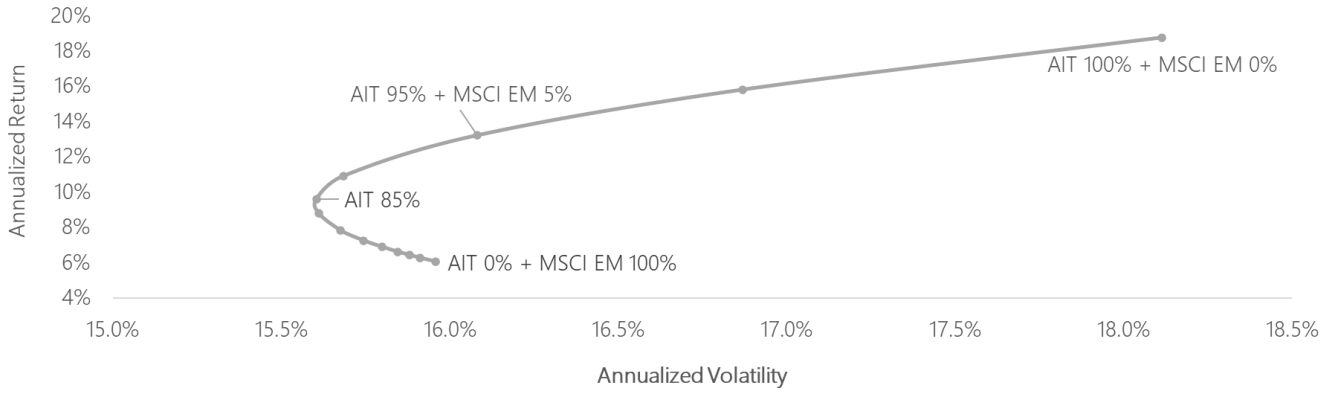
Lastly, investors or asset allocators currently using broad emerging market strategies to capture the growth markets in Asia could also consider the AIT strategy as a complementary tool. While the AIT historically had higher volatility compared to broad MSCI EM, the robust return of AIT and moderate correlations between the two strategies would have generated superior risk-adjusted return along the efficient frontier had one added AIT to his or her broad EM portfolio (Figure 20).

Figure 20: Hypothetical Portfolios – Asia Innovative Technology + MSCI EM

Return and volatility since inception: 13/6/2014-31/12/2020



	AIT 0%	AIT 25%	AIT 50%	AIT 75%	AIT 100%
Annualized Return	6.1%	6.4%	6.9%	8.2%	18.8%
Annualized Volatility	16.0%	15.9%	15.8%	15.6%	18.1%
Sharpe Ratio	0.33	0.35	0.38	0.47	0.99

Source: Bloomberg, Premia Partners, data as of 31/12/2020.

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Chapter 5: Changing guards – Political headwinds, tailwinds, and implications for Asia innovative technology leaders

Under the new US administration, it is generally expected that while the US-China tension would persist, it would also resume to diplomacy with practicality and respect for mutual interests as former US Treasury Secretary Larry Summers described[2] in his recent opinion article with the CGTN, with "co-opetition" as the main tune of the New Normal for US-China relationship especially as it comes to strategic sectors and core innovative technologies. As a result, it is reasonable to expect less tension-driven extreme market volatility in sectors such as electronics, semiconductors, and smart phone supply chains; but competition would remain especially for areas that involve strategically important technologies. The AIT strategy encompasses a diverse exposure to innovative leaders across sectors and regions in Asia, embedding excellent diversification effect. Taiwan's TSMC and Korea's Samsung, for

[2] https://news.cgtn.com/news/2020-11-26/-History-and-practicality-must-steer-China-U-S-cooperation-VGwWPrWVtm/index.html

instance, rather than being adversely affected by US-China competition, have emerged as beneficiaries instead.

Apart from the US-China relationship, the near 40% exposure to China in AIT also makes domestic China policies important factors to be mindful about. The late anti-monopoly law and the regulators' increasing scrutiny on FinTech platforms had led to a market sell off in the leading technology names such as Tencent and Alibaba. Yet this is not a Chinese effort alone, anti-monopoly and antitrust initiatives have in fact been underway globally for some time as governments become increasingly concerned about the tech giants' influence and control over the exponentially grown big data and digital footprint across human lives. In the immediate term, we expect more market volatility for the internet giants as the modus operandi is being recalibrated with the new rules on the edge. Nevertheless, given most of the tech giants grow not only organically but also increasingly from inorganic acquisitions and investments, we expect the ultimate outcome of anti-monopoly law would be positive in terms of providing more clarity and order for the ecosystem, as well as a healthier, innovative and competitive environment in China. Compared to alternate China internet strategies, AIT has a more diversified exposure within its China exposure across A-shares, H-shares and US ADRs, about 60% geographic exposure in other Asian countries apart from China, plus a more diversified sector exposure beyond internet or information technology and communications sectors. As a result, the AIT strategy is well-positioned to provide better peace of mind compared to concentrated single names or single sector bets.

On the other hand, we also see China's latest five-year plan (FYP) underscores on quality growth with specific emphasis on themes of digitalization, new infrastructure, high-end manufacturing, new energy, and healthcare. The investable themes in the AIT strategy are well aligned to the FYP's policy supports. With detailed policies to be released over the first year of the five-years in 2021, we expect strong tailwinds for the leading players in these policy-supported themes. Last but not least, as global governments proceed with the climate change agenda with definitive plans for zero carbon emission – including China with its 2060 pledge – a lot of exciting investment opportunities in green economy would continue to emerge, and this is also a key area that our AIT strategy intends to cover.

Conclusions
Carpe diem: position for tomorrow today

In today's world where technology break down walls and boundaries, the conventional geography, GICS sector-oriented asset allocation approach is leaving a big void in game changers that are transforming the world through technology. For more relevant and representative asset allocation that takes into account megatrends and technology-enabled transformations, it is important to identify the key drivers of future economic returns and sustainable productivity rather than looking to time the market or focusing on certain economies. The Asia Innovative Technology strategy not only offers an attractive alternative to investors who do not wish to be restricted to single region or sector funds, but also a valuable building block to global portfolios. Such thematic index investing focusing on the most relevant mega trends could therefore be one efficient solution that helps long-term investors to better capture quality growth opportunities in Asia.

Appendix

A1: Top 15 AIT holdings vs their US comparable peer

Asia Innovative Tech Companies							US Innovative Tech Companies		
Top AIT Holdings		Region	Primary Business	AIT Weight	3Y Market Cap Growth	3Y Average Sales Growth	Comparable US Business	3Y Market Cap Growth	3Y Average Sales Growth
BeiGene	BeiGene	China	Biotechnology	2.0%	IPO in 2018	7932.3%	Amgen	6%	0.6%
Pinduoduo	拼多多	China	E-Commerce	2.0%	IPO in 2018	342.5%	Groupon	-62%	-9.6%
Bilibili	bilibili	China	Video Streaming	2.0%	IPO in 2018	167.7%	Netflix	188%	31.7%
360 Security	360	China	Cybersecurity	2.0%	480%	137.1%	Gigamon	-	31.1%
Meituan	美团 meituan.com	China	Online Delivery	2.0%	IPO in 2018	101.0%	GrubHub	11%	38.7%
Sea	sea	Singapore	E-Commerce	2.0%	2185%	94.2%	eBay	-12%	5.2%
Alibaba	Alibaba.com	China	E-Commerce	2.0%	IPO in 2019	48.0%	Amazon	190%	27.4%
Xiaomi	xiaomi	China	Smartphones	2.0%	IPO in 2018	45.9%	Apple	162%	6.4%
CATL	CATL	China	EV Batteries	2.0%	IPO in 2018	45.7%	Johnson Controls	-4%	-9.0%
Longi Green	LONGi	China	Solar Power	2.0%	377%	42.0%	SunPower	271%	-8.6%
Tencent	Tencent	China	Social Media	2.0%	41%	36.2%	Facebook	52%	37.0%
Kakao	kakao	South Korea	Social Media	2.0%	264%	28.1%	Twitter	141%	11.6%
TSMC	tsmc	Taiwan	Semiconductor	2.0%	144%	4.1%	AMD	1012%	16.3%
XPENG	XPENG	China	Smart EV	2.0%	IPO in 2020	-	Tesla	1178%	55.0%
Nintendo	Nintendo	Japan	E-Gaming	2.0%	62%	46.2%	Activision Blizzard	50%	-0.1%
		Average			508%	648%		227%	16%

The fund's holdings are subject to change; the weighting data is based on the rebalancing on December 2020.
Source: Bloomberg, Premia Partners, data extracted at 31/12/2020.

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A2: Full list of AIT holdings as of 31st December, 2020

Ticker	Company Name	GICS Sector
700 HK	Tencent Holdings Ltd.	Communication Services
9999 HK	NetEase, Inc.	Communication Services
035420 KS	NAVER Corp.	Communication Services
035720 KS	Kakao Corp.	Communication Services
BIDU US	Baidu, Inc.	Communication Services
SE US	Sea Ltd. (Singapore)	Communication Services
4689 JP	Z Holdings Corp.	Communication Services
036570 KS	NCsoft Corp.	Communication Services
BILI US	Bilibili, Inc.	Communication Services
7974 JP	Nintendo Co., Ltd.	Communication Services
3659 JP	NEXON Co., Ltd.	Communication Services

9988 HK	Alibaba Group Holding Ltd.	Consumer Discretionary
3690 HK	Meituan	Consumer Discretionary
9618 HK	JD.com, Inc.	Consumer Discretionary
PDD US	Pinduoduo, Inc.	Consumer Discretionary
VIPS US	Vipshop Holdings Ltd.	Consumer Discretionary
4755 JP	Rakuten, Inc.	Consumer Discretionary
6758 JP	Sony Corp.	Consumer Discretionary
NIO US	NIO, Inc. (China)	Consumer Discretionary
XPEV US	XPeng, Inc.	Consumer Discretionary
6160 HK	BeiGene Ltd.	Health Care
1177 HK	Sino Biopharmaceutical Ltd.	Health Care
068270 KS	Celltrion, Inc.	Health Care
600276 CH	Jiangsu Hengrui Medicine Co., Ltd.	Health Care
4502 JP	Takeda Pharmaceutical Co., Ltd.	Health Care
4519 JP	Chugai Pharmaceutical Co., Ltd.	Health Care
4503 JP	Astellas Pharma, Inc.	Health Care
4523 JP	Eisai Co., Ltd.	Health Care
4528 JP	Ono Pharmaceutical Co., Ltd.	Health Care
6954 JP	FANUC Corp.	Industrials
300750 CH	Contemporary Amperex Technology Co., Ltd.	Industrials
1810 HK	Xiaomi Corp.	Information Technology
2382 HK	Sunny Optical Technology (Group) Co., Ltd.	Information Technology
005930 KS	Samsung Electronics Co., Ltd.	Information Technology
2308 TT	Delta Electronics, Inc.	Information Technology
3008 TT	LARGAN Precision Co., Ltd.	Information Technology
6762 JP	TDK Corp.	Information Technology
002415 CH	Hangzhou Hikvision Digital Technology Co., Ltd.	Information Technology
002230 CH	Iflytek Co., Ltd.	Information Technology
6645 JP	OMRON Corp.	Information Technology
601360 CH	360 Security Technology, Inc.	Information Technology
006400 KS	Samsung SDI Co., Ltd.	Information Technology
601012 CH	LONGi Green Energy Technology Co., Ltd.	Information Technology
000660 KS	SK hynix, Inc.	Information Technology
2330 TT	Taiwan Semiconductor Manufacturing Co., Ltd.	Information Technology
2454 TT	MediaTek, Inc.	Information Technology
2303 TT	United Microelectronics Corp.	Information Technology
8035 JP	Tokyo Electron Ltd.	Information Technology
6981 JP	Murata Manufacturing Co. Ltd.	Information Technology
051910 KS	LG Chem Ltd.	Materials

Premia Partners is a leading exchange-traded-fund (ETF) issuer based in Hong Kong. The company was founded by a group of ETF enthusiasts who believe in enabling investors with cost efficient investment tools and see enormous scope for growth and innovation in the Asian ETF industry.

For more about the Premia FactSet Asia Innovative Index and the related strategy, please visit: www.premia-partners.com

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