香 港 上 市 公 司 商 會
THE CHAMBER OF HONG KONG LISTED COMPANIES

# The "Nasdaq of China": Opportune Time for Hong Kong SAR to Create a Listing Hub of China's Tech Companies

## Strengthening Hong Kong SAR's Own Competitiveness and Serving the National Agenda

**Prepared and Submitted**
**by**
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**Introduction**

The Chamber of Hong Kong Listed Companies (CHKLC) prepares this paper to set out our recommendation for Hong Kong SAR to develop a predominant listing hub of technology companies from China (GBA and Hong Kong included), in other words – the "Nasdaq of China", at a time when China is in a quest to become a technology powerhouse.

The idea of the "Nasdaq of China" was first raised by CHKLC at the SFC Regulatory Forum organized by the Securities and Futures Commission (SFC) on 25 November 2021 as a way to safeguard Hong Kong SAR's position as a premier capital formation hub and, leveraging on its historical strength as an international financial centre, make contribution to the national agenda of China. The idea was later reiterated at the 2022-23 Budget Consultation Meeting held on 1 December 2021, chaired by the Financial Secretary of Hong Kong SAR.

In this paper, CHKLC is pleased to outline the rationale of this idea, the favourable conditions for it and some preliminary suggestions of the framework of the listing infrastructure that forms the basis of the "Nasdaq of China".

**"Nasdaq of China": A Win-Win solution for the Mainland and Hong Kong SAR**

Hong Kong SAR boasts a successful economy with world-class capital markets. HKEX claims the number one position in IPO fund raising among the world exchanges seven times in the past 12 years. Since 2018, scores of New Economy companies with Weighted-Voting-Rights (WVR) governance structure and pre-profit biotech companies have landed on the Stock Exchange of Hong Kong, as well as a host of secondary listings of the "Chinese concept stocks" from the US. This trend is likely to continue.

As of May 5, 2021, there were 248 Chinese companies listed on the U.S. exchanges with a total market capitalization of US$2.1 trillion[1]. Under the strained relationship between the US and Chinese governments, many of these companies are likely to exit the US market. Hong Kong SAR would be a big beneficiary as a top listing venue for them and help them maintain a high international profile. The Stock Exchange of Hong Kong's recent amendment of its listing rules to allow companies from non-innovative sectors to list with WVR governance structure should allow it to attract more such listings. According to media reports, up to 77 US-listed Chinese companies are eligible for a Hong Kong SAR listing and mid-cap companies like Missfresh and UP Fintech are targeting for a Hong Kong SAR listing this year.

But aside from these returning companies, there are still a large number of companies from the Mainland that are eyeing to venture out. These companies come from a diverse industry background and offers high growth potential to investors, notably those from the tech domain, engaging in disruptive and innovative technologies. In our view, Hong Kong SAR is in the best

[1] South China Morning Post, 14 May 2021

position to capture their listings. Doing so would not only strengthen Hong Kong SAR's position as a premier fund-raising center but also serve to fuel the growth of technology of our country.

The recommendation of the Chamber is to develop a listing infrastructure, for the purpose of discussion – a dedicated "Tech Board", designed to primarily attract tech, high-growth and innovative companies from the Mainland, and Hong Kong SAR for that matter, whose development stage may not be ready for a HKEX Main Board listing. Providing a listing platform that caters to the funding needs of these companies will enable them to grow, and fuel the technology advancement of the Mainland at the same time.

Our recommendation is based on the following observations:

1. China's technology sector will continue to boom, creating a huge demand for funding from the earlier-stages companies to continue their R&D and commercialization. In addition, the Tech Board provides Chinese companies with access to foreign currency for business development and overseas acquisitions.
2. Hong Kong SAR is part of the Greater Bay Area. Its close proximity to Shenzhen, the "Silicon Valley" of China, plus our own homegrown tech companies, will provide a strong pipeline of companies to the Tech Board.
3. Under the endeavours of Hong Kong SAR Government and local universities to nurture and encourage local tech start-ups, Hong Kong SAR has a vibrant tech sector and these young tech companies will benefit from a listing platform that caters to their funding needs.
4. Asset managers are seeking new investment targets to improve their investment returns and they are prepared to "go-earlier" -- invest in earlier-stages companies, expanding from their traditional targets of relatively mature enterprises. Under this general trend, and current market volatility notwithstanding; if done right, companies listed on the proposed Tech Board are likely to be met with institutional investors' interest, supporting post-listing turnover and liquidity.
5. Venture Capital (VC) and Private Equity (PE) investors are looking for higher liquidity for their investment capital. A listing infrastructure in Hong Kong SAR for earlier-stages companies will shorten the VC and PE investment life cycle, allowing a quicker exit path. The funds redeemed can be recapitalized and invested in other companies, leading to increased vibrancy of the capital markets.

In the following sections, we will further spell out the national and local endeavours in nurturing technology developments that give favourable conditions for the establishment of the Tech Board.

**China's Quest for Tech Leadership**

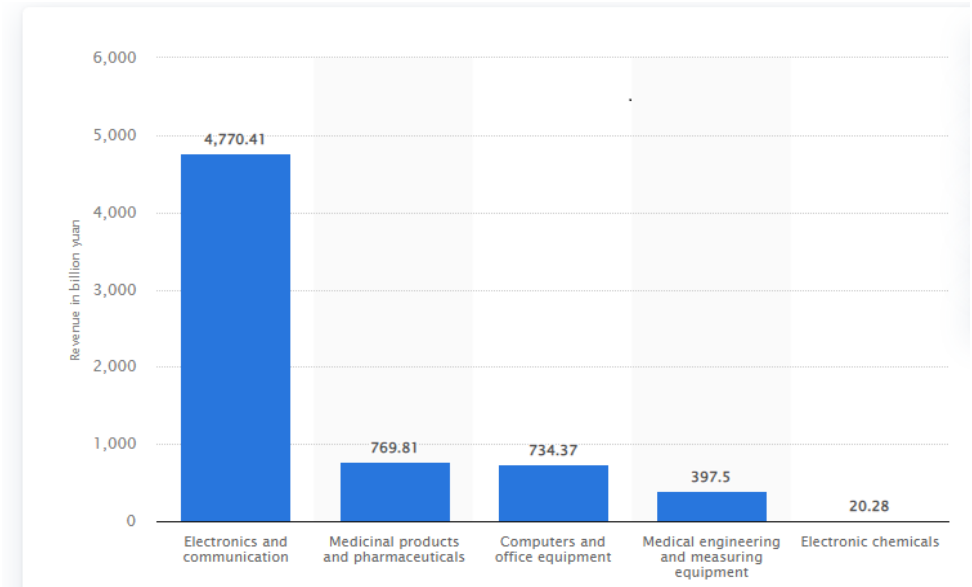
The recent Sino-US tensions have pushed to the forefront the need of China to become self-reliant on critical technologies. It is a common consensus around the world that the grasp of technology defines national power, and China is quick to realise that.

In a paper published by the Belfer Center for Science and International Affairs of Harvard Kennedy School in December 2021, entitled "The Great Tech Rivalry: China vs the U.S.", President Xi was quoted as saying, "*Technological innovation has become the main battleground of the global playing field, and competition for tech dominance will grow unprecedentedly fierce."* There is a strong emphasis on the need to *"develop indigenous capabilities, decrease dependence on foreign technology, and advance emerging technologies."*

Indeed, the technology race is on. To gain tech leadership is a recognized national agenda. For over a decade, China and the US are locked in a big tech rivalry in key areas such as artificial intelligence (AI), 5G, Quantum Information Science (QIS), Semiconductors, Biotechnology and Green Energy. The Harvard Kennedy School paper pointed out that while the US has led, China is catching up fast and has even established clear world dominance in AI and 5G and has become the standard-setter.

As a backdrop, in 2020, the sales revenue of electronics and communication high-tech companies in China amounted to over 4.77 trillion yuan (Fig.1), not far behind the US whose tech industry is estimated to reach $1.6 trillion (10.112 trillion yuan) by the end of 2021. At the same year, over 184 thousand new products had been developed in the high-tech industry in China.

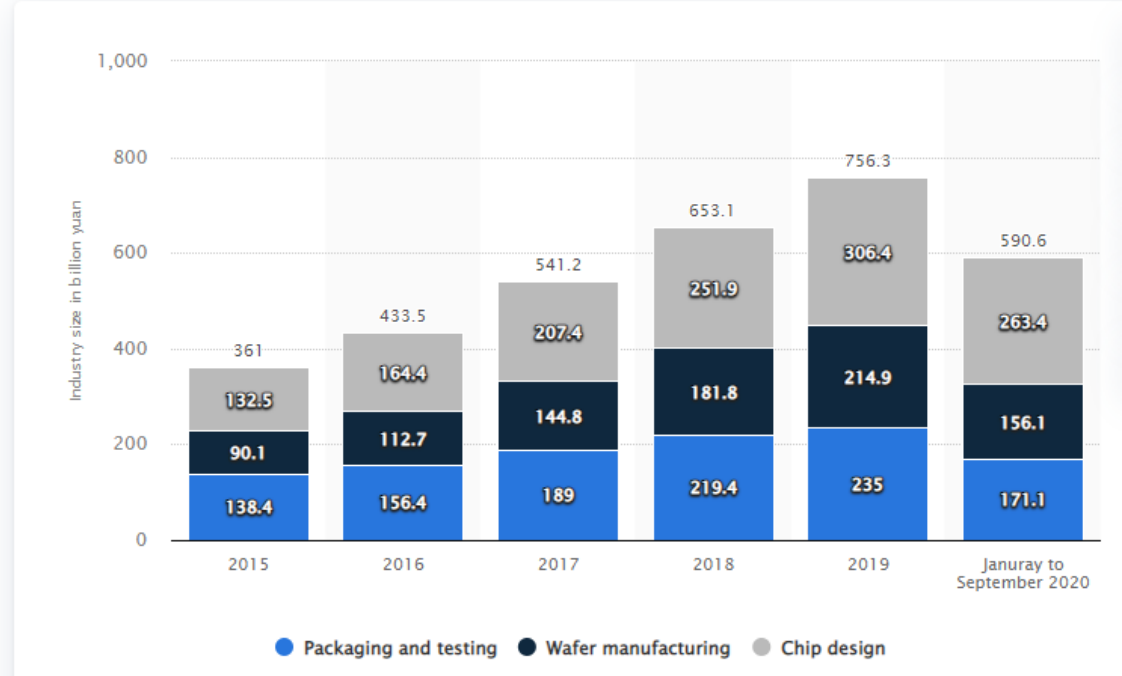
Figure1: High Tech Industry Revenue in China in 2020, by sector (in billion yuan)




*Source: Statista.com*

The backbone of electronics and communication is semiconductors, which have also seen drastic growth in output capacity in China in recent years, especially in the high value-add area of chip design (Fig.2)

Figure 2: Market size of semiconductor industry in China from 2015 to September 2020, by segment (in billion yuan)




*Source: Statista.com*

The above illustrates the progress China has made in the tech sector in recent years. The race to leadership will continue and only getting keener. China will continue to devote resources to critical technologies named above to reinforce the national and business competitiveness. For example, in QIS, which has potential applications in high-powered computations, long distance encrypted data transmission, and precision measurement, China's annual funding is estimated at US$244 million in recent years. Yet, private investment participation is also important to propel its development.

At the same time, we are looking at a whole technology value chain with horizontal technologies coupling with vertical applications. The latter are mostly developed by the private sector where government support is relatively less, and many of them reside in the Greater Bay Area (GBA).

Hong Kong SAR, as a long-standing premier capital formation centre with access to foreign exchange for operations, business development and acquisitions, is presented with unprecedented opportunities, and almost a national duty, to support the fund-raising needs of the tech sector of China, thereby assisting our country's quest for tech leadership.

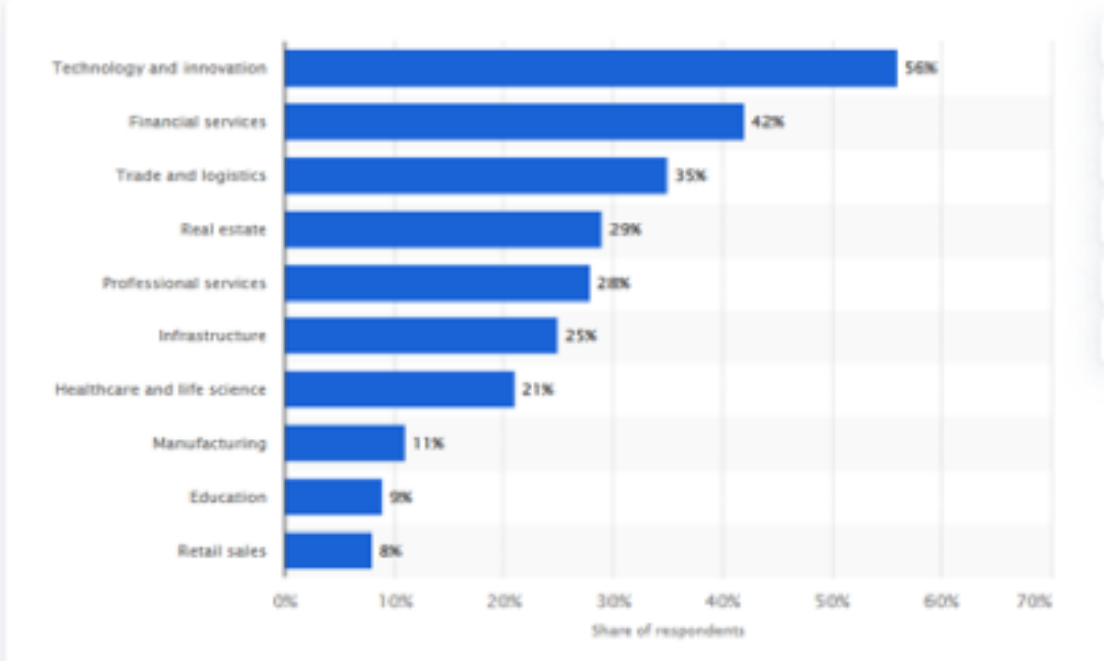
**GBA – the Big Hinterland of Tech**

As the international financial centre of GBA, Hong Kong is in an uncontested position to capture the tech companies pipeline from the region, and plays a significant role to support their growth, especially the critical tech companies of strategic national interests.

Guangdong Province has been investing heavily in technology development. Back in 2017, 234 billion yuan was spent in R&D, the top of all provinces in China, representing 13% of the national GDP. Specifically, the four cities in the GBA – Shenzhen, Guangzhou, Foshan and Dongguan accounted for 82% of Guangdong's R&D expenditures.

In 2018, the 330,000 private high-tech companies in Guangdong Province contributed to more than half of the province's GDP. Shenzhen alone is home to 14,400 national-level high-tech companies, with an industrial output valued at 2.6 trillion yuan ($378 billion) as of 2020. The three "innovative" businesses: internet, biotechnology and telecom, accounted for over 40% of Shenzhen's economic output. Further, the Shenzhen Government has earmarked 700 billion yuan for investment in hi-tech research and development from 2021 to 2025 as it seeks to reinforce the city's position as China's innovation powerhouse. Figure 3 below shows how Technology and Innovation have become the leading industries in the GBA in 2019.

Figure 3: Industries profiting the most from the development of China's Greater Bay Area as of September 2019




*Source: Statista.com*

Many of the GBA tech companies are in their growing stages and their need for funding is huge, making them ready listing candidates. The listing opportunities from these companies are for Hong Kong SAR to grab.

But Hong Kong SAR is not without competition. Eyeing on the same potential listing, the mainland exchanges are providing for their needs. The ChiNext of Shenzhen Stock Exchange and the Science and Technology Innovation (STAR) Board of Shanghai Stock Exchange are actively targeting young tech companies. The newest Beijing Stock Exchange also has a clear objective to support and nurture the growth of SMEs and to advance the national objective of driving development through innovation. Yet, Hong Kong SAR's advantages in free access to international capital market and sophisticated market structure should be a main draw to mainland companies with a higher international outlook.

**Hong Kong SAR's Thriving Tech Start-up Scene**

Our Chief Executive reiterated in her 2020 Policy Address her vision for Hong Kong SAR to develop into an international innovation and technology hub. The Hong Kong SAR Government has made considerable efforts in this regard with an investment of more than HK$130 billion in the past four years. Our Financial Secretary also devoted considerable resources to the development of Innovation and Technology in his latest Budget Speech. Thanks to such Government commitment and the participation of private investment, Hong Kong SAR has made good progress and is now home to a host of promising test companies with international competitive strengths.

Hong Kong Science and Technology Parks runs its HKSTP Venture Fund of HK$600 million. The fund co-invested in a range of companies in the fields of artificial intelligence, life and health, and environmental technology, all of them essential building blocks of the tech and digital economy that Hong Kong strives for. Among the unicorns that HKSTP has incubated are household names including SenseTime and Lalamove.

Cyberport, another institution for Hong Kong SAR start-ups, has nurtured a great many innovative companies through its co-investment activity via its HK$400 million Macro Fund. It now has a community of 2,000 tech start-ups, many of them in esports, Fintech, and digital economy. The popular travel and leisure apps Klook is one of its Unicorns incubated.

Hong Kong SAR's tech development will receive another boost by the Northern Metropolis under the visionary plan of "Hong Kong 2030+". It will provide 150 hectares of land dedicated to innovation and technology (I&T) enterprises' use, expecting to create 150,000 jobs. The provision of additional land and infrastructure will accelerate and deepen the development of local I&T.

At the same time, we have seen Hong Kong SAR's higher education institutions dedicating to the development of tech talents and start-ups, particularly in fostering industry collaboration and talent building. For example:

- Hong Kong University of Science and Technology R and D Corporation Limited (RDC), a wholly-owned subsidiary of The Hong Kong University of Science and Technology assists in the commercialization and exploitation of the research conducted at HKUST, and engages in technology transfer, collaborative research and consulting activities with the industry to promote technological innovation and economic development. RDC has brought close to 50 start-up projects to fruition. They are engaged in medical sciences, pharmaceutical, biochem technology, electronics engineering, innovative materials, Fintech and digital services.

- The University of Hong Kong runs the Technology Transfer Office which has been funding research projects and fostering technology transfer to the industry. It has been involved in around 60 start-ups and spinoff companies with a distinct focus on biotechnology and IT/Engineering, and in recent years, around 1,500 patent applications related to discoveries have been filed.

- Over at the Chinese University of Hong Kong, the Deep Tech Venture Launch Program, a collaboration between The Polsky Center for Entrepreneurship and Innovation of The University of Chicago and The Asia Pacific Institute of Business of the Chinese University of Hong Kong, is designed for scientists and researchers in Hong Kong SAR, mainland China, and overseas who are interested in transitioning technologies, such as AI, Robotics, BioTech, and Fintech from the research lab to the marketplace.

Programmes like these, and the incubation schemes of HKSTP and Cyberport, and provision of land and infrastructure in the Northern Metropolis, will be the game changer of Hong Kong SAR's tech innovation and commercialisation. The capital needs of the stream of start-ups coming to the market will be served by the proposed Tech Board.

**Mainland Tech Companies Shunning the US Capital Markets**

While a full decoupling between China and US markets is unlikely, a continual bifurcation between the two can be expected. Hong Kong SAR being caught in the middle is inevitably affected but not without new opportunities.

Further intensification of animosity between the two countries will inhibit Chinese companies from sensitive tech industries from going to list in the US. These companies would find Hong Kong SAR a probable choice to facilitate their capital needs, and internationalisation and globalisation. Hong Kong SAR therefore plays a strategic role of providing them a listing platform, filling the gap left by the US.

We see potential listings from a number of sectors, including mobility, semiconductor design-related software, robotics, machines automation, and green-related technology and services.

Mobility in particular will be seeing exponential growth in the Mainland and their demand for capital is high. With its wide-ranging applications including ride-hailing, autonomous vehicles, electrification such as EV batteries, vehicles fleet management and connectivity, their investment value is high and it is an area garnering investors' interest.

**Earlier-stages Companies Satisfy Investors' Search for Higher Returns**

In a paper entitled "Financing the Deep Tech Revolution: How investors assess risks in Key Enabling Technologies (KETs)" published by the European Investment Bank in March 2018, it was pointed out "equity financing is critical in ensuring that there is a full chain of financing for growing KETs companies. Equity instruments are indeed a more adequate financial instrument to finance high-growth, high-risk companies such as early stage KETs companies, as they better capture the value from their risk-return profile. Moreover, increasing the use of equity will improve the level of leverage of these companies and therefore enhance their ability to borrow when they need to, thus having a multiplicative effect." It is therefore imperative that Hong Kong SAR should make use of its sophisticated capital markets to help tech companies access a variety of equity financing.

According to the "Asia-Pacific Private Equity 2021" report from Bain & Co., Private Equity investors shows great interests in Growth deals (includes expansion, growth capital, mezzanine and pre-IPO, excluding real estate and infrastructure). In Greater China alone, growth investments accounted for 60% of the total US$97b in deal value in 2020. The year saw a few high-profile megadeals valued at more than US$1 billion, including the $8.7 billion acquisition of 58.com, an online classifieds platform in China.

Such interest in growth investments is not confined to Private Equity investors. Asset managers are also seeking higher returns and that has driven them to invest in pre-IPO companies, and participate in earlier-stages financing. High net worth individuals are also actively participating in private offering of existing interests in private companies. They will certainly invest in listed growth stocks for the added liquidity provided. This assures our proposed Tech Board will enjoy ongoing participation of institutional investors.

From the perspective of venture capital or private equity investors -- the traditional backers of earlier-stages companies, a tech board that lists these companies will give them more funding discretion. A shorter time to listing means their invested capital does not need to be locked up for a prolonged period of time till a Main Board listing, giving them better capital allocation choices. A shorter exit path would also allow them to re-invest the free up capital in other start-ups, fuelling the growth of more young companies.

If there is any concern about investor's receptiveness to earlier-stages or even pre-profit companies, look no further than the success of HKEX's pre-profit biotech companies listed under Listing Rules Chapter 18A. Hong Kong is now the second-biggest biotech fundraising hub in the world, and as of May 2021, there were 32 pre-revenue biotech companies listed, raising a total of HK$84billion and the sector has seen a compound annual growth rate of 61 per cent in its total market capitalisation since Chapter 18A commenced[2]. There's no reason this success cannot be replicated to the proposed Tech Board. Furthermore, the increasing popularity of offerings of existing interests in private companies from earlier-round investors also indicates high level of investors' interests in earlier-stages companies.

Just as the listings of biotech companies has invigorated the biotech sector of Hong Kong SAR, the oncoming of tech stock listings will accelerate the growth of the whole technology ecosystem through their business presence and participation in the economy. This will encourage more government-subsidised/university-led R&D, and the building up of the talent pool through university programmes and career development. Banks and brokerages will step up their research capability in covering those stocks, leading to a proliferation of tech knowledge in the investment market. This will only be beneficial for Hong Kong SAR to develop its tech resources and infrastructure, allowing our economy to diversify into high value-add industries away from an over-reliance on property and finance.

[2] "How can Hong Kong cement its position as a biotech listing hub?" *Bonnie Chan, Head of Listing 27 May 2021*

**Flexible Listing Requirements Coupled with High Disclosure and Governance for Tech Board**

The above outlined the market situation that calls for Hong Kong SAR to develop a Tech Board to serve a clear market and national need and also to strengthen its own competitiveness as a capital formation centre.

As regards the listing and regulatory regime, below are some of our initial thoughts:

1. Listing requirements should be away from profits, modelled after the regime for pre-profit biotech companies. Focus should be given to business milestones, stage of R&D or product development, and patents held or applied, etc. The size and quality of investors at earlier-stages financing, and credential of core management and technical teams would be a good indicator. Many of the governance features for Chapter 18A, such as enhanced disclosure of business or product milestones, can be adopted for the Tech Board. We realise that unlike biotech companies that have clear milestone achievements such as stages of clinical trials certified by international authoritative bodies, the degree of tech development may be harder to gauge. How to measure tech development can be something the whole market can discuss.
2. Disclosure-based IPO Vetting may be considered. Tech, especially deep tech is very specialised and technical. Its product characteristics and commercial implications and viability are not easy to understand by people outside the industry. While an Expert Advisory Board would be helpful in helping to assess listing suitability, we would like to suggest minimal subjective vetting but relying on adequate disclosure, aiming for a fast and low-cost IPO process, allowing quick access to funding.
3. Listing Advisors, such as the NOMAD system of AIM of London Stock Exchange, may be introduced to give guidance to companies during IPO and to assure their post-listing compliance to give better investor protection.
4. Since we are dealing with earlier-stages companies whose business success depends on many market factors, we believe there may be a case of restricting the Tech Board to professional investors in the beginning.
5. We recommend that the Tech Board be a stand-alone board with no “migration” channel. Companies who choose to list on the Tech Board should remain on it. Tech Board should be a dedicated board but not be seen as inferior or secondary.

With careful planning and design of the right listing parameters, the Chamber is confident that the Tech Board will be well received by companies and investors.

We would like to stress there is no better time to pursue the Tech Board than now:

- China is at a critical stage of technology development and the zest of advancement is unstoppable. This will produce hundreds if not thousands of investable companies with high growth potentials, supplying a strong pipeline to the Tech Board that could generate capital returns to investors. Hong Kong SAR is on a similar path of tech development and our home-grown tech players have equally high capital needs. The industry background of potential listed companies will be diverse, ranging from AI, QIS, robotics to mobility and software. They will be quality companies with real business growth potentials and able to satisfy a broad spectrum of investors' profile and risk appetites.

- At the same time, we see strong Institutional Investors' interest and demand. Asset managers are "going-earlier" and expanding their investment horizon to seek higher returns. They are more willing and ready to invest in growth companies both before and after IPO than ever before as aforesaid.

The Tech Board will be a focused and niche marketplace bringing together quality tech companies and investors. Once the critical mass is formed, market momentum will gather and propel further growth. If the Hang Seng Hong Kong-Listed Biotech Index, which registered a gain of 49.5 per cent in 2020 versus the 3.7 per cent decline in the Hang Seng Index, is of any reference, the tech stocks will provide good investment opportunities and strong potential returns to investors, sustaining their continuing interest and participation.

The above outlines the Chamber's views about the need of a Tech Board in Hong Kong SAR. We hope this meets with the due consideration of the Government and the market regulators and we look forward to exploring this idea further and working out some of the details of the listing and governance features.

Lastly, we would like to emphasise that time is of the essence: we must seize the opportunity against favourable backdrop and national technology priority to create the Tech Board. Doing so will take Hong Kong SAR to the next level, benefiting the tech eco-system and the community at large.

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