A Study of Trends and Challenges Facing Hong Kong
CONTENTS

I. ABOUT THE HONG KONG MANAGEMENT ASSOCIATION ................................................................. 2

II. TRENDS AND KEY CHALLENGES FACING HONG KONG ............................................................ 4

1. ECONOMIC FACTORS .................................................................................................................. 4

A CHANGED WORLD UNDER THE COVID-19 PANDEMIC

REPOSITIONING HONG KONG AS A GLOBAL FINANCIAL CENTRE WITH REGIONAL FOCUS

STRENGTHENING AND TRANSFORMING HONG KONG’S RETAIL AND CATERING SECTOR TO
RECOVER FROM HARSH WINTER

REINVENTING AND REVITALIZING HONG KONG’S TOURISM, MICE AND HOSPITALITY SECTORS

LEVERAGING INNOVATION AND TECHNOLOGY TO CREATE A SMART FUTURE

2. SOCIAL FACTORS ....................................................................................................................... 17

SUSTAINABILITY AS THE NEW BUSINESS IMPERATIVE

A CHALLENGING FUTURE FOR BOTH EMPLOYERS AND EMPLOYEES UNDER THE NEW NORMAL

HEALTHCARE SECTORS PUT TO THE TEST AS GLOBAL EPIDEMIC LINGERS

PANDEMIC DISRUPTED EDUCATION INDUSTRY AND PUSHED TRANSFORMATION OF LEARNING
HABITS AND NEEDS

3. POLITICAL FACTOR .................................................................................................................... 26

A NEW TURNING POINT FOR POLITICAL AND SOCIAL STABILITY IN HONG KONG

4. REGIONAL AND GLOBAL FACTORS ........................................................................................... 27

LEVERAGING HONG KONG’S UNIQUE EDGE WHILE FURTHER INTEGRATING INTO THE GREATER
BAY AREA

HONG KONG CAUGHT IN THE CROSSFIRE OF THE SINO-US TRADE CONFLICT
I. ABOUT THE HONG KONG MANAGEMENT ASSOCIATION

Established in 1960, The Hong Kong Management Association (the Association) is an apolitical and non-profit-making organization with the vision to be the leading professional organization advancing management excellence in Hong Kong and the Region.

Vision

To be the leading professional organization advancing management excellence in Hong Kong and the Region

Mission

- To promote best practices in management
- To nurture human capital through management education and training at all levels
- To provide members with a platform for exchange of ideas, networking and personal development

Values

- Continuous improvement
We embrace best practices through continuous improvement.

- Innovation
We welcome new ideas, seek out new skills and capabilities, and explore new concepts.

- Integrity
We are open, honest and forthright in our dealings.

- Professionalism
We strive for excellence in all we do.

- Respect for Individuals
We built relationships based on trust and respect.

- Sustainability
We integrate sustainability into all aspects of our operations and business practices.

Services provided by the HKMA can be categorized into three major areas, namely education and training; management services and membership services.

With a commitment to nurturing human capital through management education and training at all levels, the HKMA offers around 2,000 training and education programmes covering a wide range of management disciplines for some 50,000 executives every year. From distance learning courses, seminars and workshops, certificates, diplomas, all the way to bachelor, master and doctorate degree programmes in conjunction with prestigious overseas universities, these programmes are suitable for executives at different stages of development. The HKMA also provides specially designed in-house training which geared to the particular needs of different organizations. In 2009, the Association introduced the Corporate University scheme, which helps companies retain quality staff and build a corporate culture of lifelong learning.

In 2015, the Association established the Institute of Advanced Management Development (AMD). Through collaborations with world-renowned universities and organizations such as Cornell University, University of Cambridge, Yale University, Fudan University, Peter Drucker Academy and UNESCO Hong Kong Association, AMD offers a series of high profile training and education activities as well as provides management consulting services.
In 2017 and 2018, the Association launched the Institute of Healthcare Management (HCM) and Academy for Retail Innovation and Management (ARIM) respectively. The HCM aims to offer world-class healthcare management programmes and to serve as a learning platform for healthcare professional development with a view to making significant contribution to advancing management excellence in the healthcare sector in Hong Kong and the Region. The ARIM aims to offer advanced retail management courses and to serve as a learning platform for retail practitioners with a view to making significant contributions to advancing management excellence in the retail sector in Hong Kong and Mainland China; to provide a network for experts to interact with retail professionals and practitioners; and to promote best practices and innovative ideas relevant to the retail sector.

The Association believes learning while networking works best for achieving continuous development. Diversified management services are offered to provide platforms for business executives to exchange ideas, to network and to gain professional development. Annually, the Association organizes diverse functions such as Annual Conference, Theme Year seminars and activities and dinners. Prominent business leaders are invited to share their invaluable insights and wisdom on the most updated trends and development of management.

Business award is another major area of HKMA’s management services. To promote best practices in management, each year, the Association organizes eight business awards in Hong Kong and the Mainland. These include the Best Annual Reports Awards, the HKMA Quality Award, the Award for Excellence in Training and Development, the HKMA Awards for Marketing Excellence, the Hong Kong Sustainability Award, the Hong Kong Management Game, the Distinguished Salesperson Award and the Award for China Marketing Excellence. These prestigious awards, which are now regarded as the highest accolades of the business community, provide an exemplary model for business professionals to follow and benchmark.

With a total of around 13,000 members including individuals and corporates, membership service has always been a priority for the Association. A comprehensive range of membership activities such as seminars, forums, luncheons, company visits, study tours and social gatherings are offered every year. Another distinctive feature of membership is the six autonomous specialist clubs which provide opportunities for members with similar interests to meet and develop further their specialist knowledge. The highlight event of membership is the Annual Fellowship Dinner which provides an excellent platform for members to extend their network.
II. TRENDS AND KEY CHALLENGES FACING HONG KONG

1. ECONOMIC FACTORS

A CHANGED WORLD UNDER THE COVID-19 PANDEMIC

The COVID-19 pandemic has spread with alarming speed. By early December 2020, 64.2 million total cases and 1.49 million deaths were recorded worldwide.\(^1\) Waves of outbreak brought economic activity to a near-standstill as countries imposed tight restrictions on movement to halt the spread of the virus. The World Bank made a forecast of 5.2% contraction in global GDP in 2020, the deepest global recession in decades.\(^2\) Many people have lost their jobs or seen their incomes cut due to the coronavirus crisis. Millions of workers have also been put on government-supported job retention schemes, especially those working in retail, tourism or hospitality.\(^3\)

Over the longer horizon, the deep recessions triggered by the pandemic are expected to leave lasting scars through lower investment, an erosion of human capital through lost work and schooling, and fragmentation of global trade and supply linkages.\(^4\) Despite the clear danger that the global economy is in, governments have learned from previous crises that the effects of a demand-driven recession can be countered with government spending. Consequently, many governments are increasing their provision of monetary welfare to citizens, and ensuring businesses have access to the funds needed to keep their staff employed throughout the pandemic. Despite the economic gloom, some sectors have thrived during the pandemic. Sectors such as healthcare, home entertainment, e-commerce and IT applications supporting online learning and remote working, provided at least some economic growth to offset the damage to the global economy.\(^5\)\(^6\)

European Economies

According to Reuters, Europe accounts for about 30% of the global COVID-19 fatalities and cases, and is the first region worldwide to cross 500,000 COVID-19 deaths. Prompted by the severity of the COVID-19 second wave, economists at the European Central Bank (ECB) have downgraded forecasts for the eurozone. The ECB expected GDP to grow by just 3.9% in 2021 compared with a forecast of 5% made in September 2020. The third quarter rebound has nonetheless helped reduce the contraction in 2020. The ECB expected the eurozone economy to contract by just 7.3% in 2020, compared with a prediction of 8% fall in GDP made in September 2020.\(^7\) As of October 2020, unemployment across the eurozone was 8.4%. About 16.2 million people in the EU, of whom 13.8 million in the euro area, were unemployed.\(^8\)

The extent of the economic turmoil across the European economies varied. The German economy had contracted by 9.8% in the second quarter of 2020. Third-quarter GDP expanded by 8.2% compared to the previous quarter, on the back of more consumption from households, a solid increase in exports and positive activity in manufacturing. Although these improvements were about to be washed away by the second wave of COVID-19 and a new round of national lockdowns,\(^9\) Germany was comparatively weathering fallout from COVID-19 better than other EU states where outbreaks have been more disruptive.\(^10\) The German government expects GDP to shrink by 5.5% in 2020. This means the recession triggered by the coronavirus pandemic will be slightly milder than the loss of output caused by the global financial crisis in 2009 when GDP fell by a record of 5.7%.\(^11\)

The forecasts for France presented a more gloomy picture. France’s GDP contracted by 13.7% during the second quarter, which included the first full month (April) of nationwide lockdown. Despite massive GDP growth of 18.2% in the third quarter of 2020, GDP remained well below the level it had before the crisis. French business activity contracted in October 2020, as evidenced in the decrease of PMI from 48.5 in September to a five-month low of 47.3 points in October. The results suggested that the recent rise in COVID-19 cases and subsequent tightening of restrictions has had a notable negative impact on business conditions.\(^12\)

UK suffered the worst among the European economies, according to the Organisation for Economic Co-operation and Development (OECD), who believed UK would experience a decline of 11.5% in its GDP due to lockdown. The latest variant of the virus is enormously damaging for near-term recovery prospects. In December 2020, a highly transmissible variant of the coronavirus
was discovered in UK. In an attempt to slow the spread of the new variant, British Prime Minister Boris Johnson announced tougher new restrictions for London and surrounding areas. The new restrictions limited travel severely, and shops closed. Other countries also imposed travel restriction on UK residents, including Bulgaria, France, Germany and the Netherlands. Economists expected that UK GDP could shrink by as much as 3% in the first three months of 2021 as a result of the third national lockdown.\(^\text{13}\)

On the other hand, Brexit has been bringing as much uncertainty as COVID-19 to the UK economy. UK and European Union (EU) finally reached Trade and Cooperation Agreement on Brexit on 24 December 2020, which marked the end of UK’s more than 40-year membership of the European Union. The Agreement entered into force provisionally on 1 January 2021 and defines UK’s future trading and security relationship with the EU containing provisions in areas such as fishing, trade, travel, education, security and data.\(^\text{14}\) According to the deal, 100% of tariffs and quotas on goods traded between the UK and the EU will be eliminated. The deal also ensures continued cooperation between the UK and the EU on the agricultural, automotive, chemical and pharmaceutical sectors. However, further negotiations on the provisions may be required, for instance, in financial services sector. The sector, which accounts for 7% of the UK economy and 10% of its tax receipts, were merely mentioned in the deal.\(^\text{15}\)

**US Economy**

The US economy recorded an economic contraction at annualized, seasonally adjusted rate of 31.4% in the second quarter of 2020, the deepest since the government started keeping records in 1947. There were signs of improvement in the third quarter, with GDP rebounded at a 33.4% annualized rate, driven by robust housing and consumer spending. Nonetheless, the US is struggling with a resurgence in new coronavirus cases, with more than 17.78 million people infected and over 317,800 dead as of end-December 2020. Economists worry that the economy is slowing down again in the last quarter of 2020, and the renewed lockdown restrictions could deepen the pandemic recession.\(^\text{16}\) Figures showed that consumer confidence dropped for a second straight month in December 2020, suggesting that the positive impact of the rolling out of a vaccine for COVID-19 has been offset by deterioration in the labour market amid renewed business restrictions.

The pandemic left staggering human cost to the US. The unemployment rate spiked to 14.7% in April 2020, after the coronavirus pandemic shut down the US, the highest point since the Great Depression.\(^\text{17}\) Hiring in November slowed for a fifth straight month, with employers adding the fewest jobs since April. Around 10 million of the 22 million people who lost jobs when the pandemic hit in the spring remained unemployed. Although the widespread use of vaccines could potentially unleash a robust economic rebound and pick up hiring activities, there are concerns whether households and small companies could endure the pain till then. Economists also suggest the likeliness of higher unemployment, unless there is additional fiscal rescue package.\(^\text{18}\)

Federal Governor Lael Brainard said that the Federal Reserve is committed to providing sustained accommodation but warned that further fiscal support will be needed alongside accommodative monetary policy to turn this K-shaped recovery into a broad-based and inclusive recovery. The Federal Reserve left the target range for its federal funds rate unchanged at 0-0.25% on 16 September 2020 and signalled it would hold them there through at least 2023.\(^\text{19}\)

**China Economy**

China’s economy suffered greatly over the early stages of the outbreak of COVID-19. However, China has successfully gotten the spread of COVID-19 mostly under control by draconian lockdown measures and tests to identify and isolate new cases that may emerge in the future. As such, China’s economy has mostly re-opened, at a time when the virus sweeps through the rest of the world. The IMF said China would be the only major economy to expand this year with prediction of 1.9% GDP growth.\(^\text{20}\)

In May 2020, President Xi Jinping put forth the “dual circulation strategy”, a two-pronged development strategy that sought to spur China’s domestic demand (“internal circulation”) as well as cater to export markets (“external circulation”). He later added that China would “gradually form a new development model in which domestic circulation plays a dominant role”. Greater focus on “internal circulation” driven by domestic demand from consumption as well as new and traditional
infrastructure investment was anticipated. To boost internal circulation, China has taken measures to promote internal tourism. As a result, more jobs have been created in the service sector, enabling more people to spend. With more people returning to work following redundancies due to COVID-19, they will spend more and drive growth faster.

The strategy is quickly delivering a recovery in Chinese GDP growth. China's GDP in the third quarter of 2020 registered a 4.9% growth from a year earlier. The growth beat the second quarter's 3.2%, which reversed the first contraction on record at 6.8% in the first quarter. The GDP growth in the third quarter was driven by infrastructure and real estate investment as well as a strong performance in export. The national economy continued the steady recovery and significant results have been delivered in coordinating epidemic prevention and development. In the first three quarters, the country's added value of major industrial enterprises grew 1.2% from a year earlier. Industrial output increased by 6.9% in September 2020 on an annual basis. Consumption remained a drag, as retail sales only returned to positive growth since August 2020, and its impact will be more prominent in the fourth quarter. Retail sales grew 3.3% year on year in September 2020 while retail sales in January-September declined 7.2% in annual terms.

China’s factory activity expanded for the sixth straight month in October 2020 as business confidence grew to its strongest in years. The PMI for Chinese manufacturing came in at 53.6 for October 2020. The latest reading was the highest since January 2011, showing that both demand and supply of Chinese manufacturing goods have continued to recover. China's diversified supply chain has helped the country regain trade growth in recent months, defying the coronavirus pandemic and economic tensions with the US. Chinese exports in September 2020 grew 9.9% on the year to US$239.7 billion while imports grew 13.2% to US$202.7 billion after contracting in July and August 2020. The rebound was aided by a lower base comparison and an increase in fixed-asset investment by manufacturers, which grew by 5% in August 2020.

Looking into 2021, World Bank estimated China's real GDP growth will be accelerating to 7.9% in 2021 as consumer spending and business investment continue to catch up. While recovery is in progress, the next focus would be on rebalancing the economy, in particular, from investment to more innovation and consumption-led growth.

Hong Kong Economy

Hong Kong recorded the first COVID-19 case on 23 January 2020. Although there was widespread concern and panic buying, infection numbers remained low. The city then experienced its “second wave” in March with a spike in infections. As a result, Government introduced strict border controls and imposed social distancing measures, which deeply plagued the Hong Kong economy. In the first quarter, GDP tumbled 8.9% year-on-year, which was even worse than the third quarter of 1998 when GDP shrank by 8.3% with the effects of the Asian financial crisis.

Sectors such as retail, catering, tourism and hospitality were especially affected by the frozen inbound tourism and social distancing measures. In response, Government had launched various wage subsidies and job creation schemes to support the hardest-hit sectors on near-term survival, with a hope that the pandemic would be gone and economic activities could pick up pace afterwards. Nevertheless, the city had a hard time bringing the pandemic under control, and was caught combating the third wave of outbreak in the third quarter, and even a fourth wave that continued into 2021.

The ongoing waves of COVID-19 have worsened the Hong Kong economy, and the labour market deteriorated as a whole. Although the labour market showed signs of stabilization towards the end of the third quarter, the resurgence of COVID-19 cases has increased the pressure again, with unemployment rate of the fourth quarter hovering near the 16-year high of 6.4%. Unemployment rate in the most disastrous sectors remained high. In the September to November 2020 period, consumption- and tourism-related sectors recorded an unemployment rate of 10.1%, a decline of 1.1 percentage point from August to October 2020. Across the same period, unemployment rate for food and beverage service activities fell from 14.8% to 13.1%. As the second tranche of Employment Support Scheme came to an end in November 2020, concerns were increasing that a wave of layoffs and bankruptcies would begin. According to a survey conducted by The Institution of Dining Art with 136 catering businesses in mid-December 2020, about 70% of Hong Kong restaurants polled said they faced closures in the next three months amid tightened social-
distancing measures and a similar percentage of respondents planned to lay off employees in the first quarter of 2021. In December 2020, Government has unveiled another round of aid worth HK$6.4 billion for hard-hit businesses such as restaurants, gyms, beauty parlours and cinemas, though some industry professionals warned the amount was still not enough to survive the crisis.

Hong Kong’s Financial Secretary Paul Chan has predicted that the economy could recover in the second half of 2021, but will rely on the coronavirus pandemic easing, the availability of a vaccine, and improved Sino-US trade relations. While Government has closed the deal for 22.5 million doses of COVID-19 vaccines, there remain much uncertainty around the timetable of delivery and vaccination as well as the scepticism against the source and efficacy of the vaccines. Furthermore, as pandemic border restrictions crush Hong Kong’s economy, Hong Kong would wait until effective mass vaccination or "Health Code" is available so that quarantine measures could be loosened and both domestic and cross-border economic activities could be resumed.

**REPOSITIONING HONG KONG AS A GLOBAL FINANCIAL CENTRE WITH REGIONAL FOCUS**

As one of the leading international financial centres, Hong Kong is home to a critical mass of local and foreign financial institutions. Hong Kong’s financial markets operate under effective and transparent regulations that are in line with international standards. Located at the heart of Asia, Hong Kong also thrives on its close financial integration with Mainland China, extensive networks with the rest of the world, sound legal system, low and simple tax regime, free flow of capital, a diversified range of financial products, and a large pool of talents. The financial sector had a workforce of 7.1% of working population in Hong Kong in 2019, and contributed to some 20% of Hong Kong’s GDP in 2018.

Starting in late 2019, investor confidence in Hong Kong stated to wane due to social and political turmoil. A survey conducted in July 2020 by the American Chamber of Commerce Hong Kong found that nearly 40% of US companies were considering moving capital, assets or operations out of the city due to concerns about China’s imposition of the new National Security Law on Hong Kong. Other Asia Pacific centres are trying to burnish their credentials as financial centres. The Japanese government would consider lowering tax rates and promoting diversity in boardrooms to attract foreign talent in an effort to reinvent Tokyo as a global financial hub. Singapore emerges as a big winner of China’s move. According to the American Chamber of Commerce in Singapore, 23% of companies with offices in Hong Kong were thinking of leaving to escape the ongoing turmoil, with nine out of 10 looking to Singapore.

Nonetheless, the sheer ability to raise money outweighs many other factors. The flow of money that comes in and out of Hong Kong to Mainland China on a daily basis is very hard to replicate. Supporting this, Hong Kong’s stock exchange raised HK$83.7 billion from 59 new listings in the first half of 2020. The influx of funds defy doomsday predictions of capital flight from Hong Kong, even as the city finds itself between escalating tension between US and China. In August 2020, the Hong Kong Monetary Authority (HKMA) had to step into the market to weaken the local currency for the third time in a month as capital continued to flow into the city ahead of several blockbuster stock offerings by Nongfu Spring, Ant Group and other start-ups. The HKMA spent HK$114.41 billion of Hong Kong’s reserves through 35 market actions in four months to dampen the effects of surging capital inflows, as a gap in interest rates with the rest of the world and a white-hot market for initial public offerings (IPOs) continued to suck in money. The largest IPO in global financial history broke records in Shanghai and Hong Kong, soaking up more than US$3 trillion from retail investors. However, Ant Group’s IPO could be delayed by at least six months and its valuation sharply reduced after Beijing halted its trading debut.

Another key advantage that cannot easily be copied is Hong Kong’s position as the dominate gateway to China. With the support of the Central Government, Hong Kong became the first market in the world to start offshore RMB business in 2003. Over the years, Hong Kong has developed into an important RMB financing centre, hosting the largest offshore RMB bond market with issuers ranging from the Chinese Ministry of Finance to financial institutions and corporates from different parts of the world. To date, Hong Kong has the world’s deepest RMB liquidity pool outside Mainland China of over RMB600 billion.
As China accelerates its pace in the liberalization of its capital market, Hong Kong takes up a key role of “super connector” in bridging the Mainland and international investment communities, as evidenced in the roll out of the Stock and Bond Connect Schemes. Stock Connect, launched in 2014 with Shanghai Stock Exchange and Shenzhen Stock Exchange in 2016, has been promoting two-way opening-up and healthy development of the capital market on the Mainland and Hong Kong. In November 2020, Hong Kong Exchanges and Clearing Limited (HKEX) announced that it has reached agreement with the two stock exchanges on the expansion of Stock Connect Scheme to allow Mainland investors to trade shares of secondary listed companies and pre-revenue biotech firms in Hong Kong. It is expected that the inclusion of dual-listed companies will attract more new-economy companies and firms listed in foreign markets to Hong Kong and reinforce Hong Kong’s status as the “super connector” amid the increase in post-trading complexities and the growth of international investors’ participation in the Mainland’s equity market.

Unlike Stock Connect which facilitates two-way trading, Bond Connect currently permits Hong Kong and international investors to invest in the China Interbank Bond Market (“Northbound” trading) only. According to the HKMA, Bond Connect’s investor community has grown from scratch in 2017, when Northbound trading was launched, to 578 in 2020. The Scheme accounted for 52% of foreign investors’ total turnover in the Mainland interbank bond market in the first eight months of 2020, and 29% of the RMB1.96 trillion net inflow into Mainland bonds since its launch. With the success of “Northbound” trading, the Authority announced in September 2020 that it planned to launch the “Southbound” leg at a suitable juncture, whereby Mainland investors will also be able to invest in the Hong Kong bond market. This will further solidify Hong Kong’s role as an intermediary for capital flowing into and out of China.

Hong Kong also has formidable strengths in the Asian private equity (PE) market. As of the third quarter of 2019, some 560 private equity companies are based in Hong Kong and altogether managed US$153 billion. Nine out of the world’s top 10 PE fund managers have a presence in Hong Kong. With a view to attracting more PE funds to domicile and operate in Hong Kong, Government plan to provide tax concession for carried interest issued by PE funds operating in Hong Kong subject to the fulfillment of certain conditions. The Financial Services and Treasury Bureau has launched consultation with the industry seeking views on the tax concession proposal. The tax concession rate is considered as highly competitive and will take retrospective effect from the year of assessment commencing on 1 April 2020.

Amid the challenges to its position as a leading financial centre, the financial sector of Hong Kong has witnessed multiple encouraging developments, one of them being the local bond market. The Government Bond Programme was launched in 2009 with primary objective of developing the local bond market, so that the bond market may complement the equity market and the banking sector as an effective channel of financial intermediation. In addition to the issuance of institutional bonds and retail bonds, in 2019, Government offered an inaugural green bond of US$1 billion under its Green Bond Programme, and planned to issue green bonds totalling HK$66 billion over 2020-2021. Not only Government, the MTR Corporation has sold a 10-year green bond worth US$1.2 billion in August 2020, which is the largest issuance in Hong Kong with US$3.75 billion oversubscription. Hong Kong has quickly become one of the region’s most active and diverse green bond markets across both the issuer and investor communities. The significant oversubscription demonstrates the appetite both for strong corporate names and the green format more broadly. The Government will also continue to issue Silver Bonds to encourage the financial sector to develop the silver market. Moreover, Hong Kong’s seventh inflation-linked government debt, known as iBonds, was issued on 16 November 2020 with a total issuance of HK$15 billion. It received a total of 456,380 valid applications for more than HK$38.3 billion in principal amount of bonds.

On the other hand, the financial services market is undergoing a wave of innovation and digital transformation, led by new fintech companies and virtual banks. In 2019, the HKMA announced that eight virtual banks had been selected to receive licenses to operate in the region. The introduction of virtual banks has several strategic significance, namely (1) promoting financial inclusion as they normally target the retail segment, including the small and medium-sized enterprises (SMEs); (2) supporting Hong Kong’s entry into the smart banking era by promoting fintech and innovation and (3) building a flexible, cutting-edge technology stack to that can deliver brand new banking experience, thereby keeping Hong Kong as competitive as Singapore, Taiwan and Malaysia which have also committed to release their version of virtual banking framework.
A year after Hong Kong’s banking regulator issued licenses to eight virtual banks, four of them have opened for business, namely, ZA Bank Limited, Airstar Bank, WeLab Limited and Livi Bank. Virtual banks target traditionally under-served younger customers and SMEs. These banks are expected to offer lower fees and faster services, like quick and easy loans. Taking advantage of their technical agility, virtual banks can develop data-centric and hyper-personalised banking services. However, when it comes to the breadth and variety of financial products, traditional banks offer product categories like investment and mortgage which are not being offered by any virtual bank today. Consumers who require personalization or high-touch service may still resort to traditional banks so that they can engage directly with their account manager for direct communication.

As Environmental, Social and Governance (ESG) emerged to be one of the biggest trends in of the global financial industry, HKEX has increased the pace of ESG requirements in May 2019 with the publication of a consultation paper entitled ‘Review of the Environmental, Social and Governance (ESG) Reporting Guide and Related Listing Rules’. The new rules place more specific demands and more technical requirements on listed companies in terms reporting deadline, board responsibilities, data management, as well as increased disclosure of specific ESG policies and strategies. The amendments to the existing guide represent a shift away from mere ESG reporting to actual management of ESG activities by listed companies, with an emphasis on the board’s role in the governance structure for ESG matters. Moreover, companies are now required to disclose how climate change will impact their businesses, and must have policies on the identification and mitigation of significant climate-related issues that have impacted or may impact their business. A company must also provide a KPI description of such climate-related issues and actions taken to manage them.47

Apart from reviewing ESG reporting requirements, HKEX launched the Sustainable and Green Exchange (STAGE) in December 2020. STAGE is Hong Kong and Asia’s first multi-asset sustainable investment product platform which serves as an online product repository of ESG-focused products across multiple sectors. It provides information related to sustainable finance and database of voluntary reporting for ESG-linked financial products so to promote transparency and act as a benchmark for investors. The establishment of STAGE marks a valuable addition to Asia’s sustainable finance ecosystem, and supports Government’s ambition to make Hong Kong the Green Finance Hub of the GBA48.

Hong Kong, as a major international financial centre, has an integrated network of institutions and markets. In turbulent times of international and geopolitical tension, Hong Kong remains attractive when compared to alternative financial centers especially when it comes to accessing the Chinese market. Going forward, apart from capitalizing on opportunities presented by China especially the GBA, Hong Kong must continue to sharpen its strength in fundraising and investment, while keeping up with new areas of development such as virtual banking, fintech and ESG, in order to safeguard its unique status as an international financial centre.

**Strengthening and Transforming Hong Kong’s Retail and Catering Sector to Recover from Harsh Winter**

The social instability in Hong Kong since the second half of 2019, together with the outbreak of COVID-19 in 2020, has heavily hit the city’s retail and catering sectors. According to the latest figures by the Census and Statistics Department, the provisional estimate of the total retail sales for the first ten months of 2020 had decreased by 28.3% in volume and by 27% in value respectively compared with the same period in 2019. Due to travel restrictions and quarantine measures imposed worldwide, inbound tourism to Hong Kong came to a halt, resulting in a significant impact on Hong Kong’s retail market. On a year-on-year comparison, the provisional estimate of the value of sales in October 2020 continued to drop over the broad type of retail outlets, with medicines and cosmetics, jewellery, watches and clocks as well as electronic goods and consumer durables being the categories with the greatest decrease. Although the year-on-year decline narrowed in October 2020 due to improved consumption sentiment amid the more stabilized epidemic situations and a lower base of comparison, Government foresees that with the fourth wave of the local epidemic, the business environment of the retail trade may deteriorate again in the near term.49
The catering sector is also bracing a fatal blow amid COVID-19. Although the industry has strived to maintain businesses by offering takeaway and delivery services along with discount offers, these alone were insufficient to compensate for the massive revenue drop suffered from restrictions on dine-in hours, seating limit and group gatherings. The value of total receipts of the restaurants sector in the third quarter of 2020, provisionally estimated at HK$17 billion, has decreased by 35.5% compared to the same period in 2019. Among the restaurant categories, bars have seen the steepest decrease in total receipts by 62.7% in value and 63.6% in volume, followed by Chinese restaurants by 46.6% in value and 46.3% in volume, and non-Chinese restaurants by 30.9% in value and 28.3% in volume. According to Openrice, over 250 Hong Kong restaurants or eateries had gone out of business in June 2020 alone. Staff members had been put on unpaid leave in order to control costs under the pandemic. Industry players estimated that restaurants in Hong Kong could lose as much as HK$3 billion in revenue for July 2020 alone because of the ban on nighttime dining.

The pressure of prolonged weakening consumption from local residents and tourists had shown an alarming impact on the labour market in the first three quarters of 2020. Unemployment rate in retail, accommodation and food services sectors, which are among the ones most significantly affected, recorded a new high of 11.7% in July to September 2020, although there was a slight decrease by 0.5% to 11.2% in August to October 2020. In view of the uncertain economic outlook under the evolving pandemic situations, Government expects that the hiring sentiments among employers would remain cautious and the labour market will remain under pressure in the near term.

In July 2020, the Hong Kong Retail Management Association (HKRMA) had addressed an open letter to the landlords to plead for their understanding in reducing or exempting monthly rents for their tenants during such difficult times. Otherwise, more than 60,000 retail shops were expected to be closed and more than 260,000 persons in the retail industry would go out of their jobs. Moreover, in view of the resurgence of the fourth wave of local epidemic, HKRMA was pessimistic about the outlook for the traditional peak shopping season in year end due to the tightened social distancing measures and continued halt in in-bound tourists. At the same time, since Government’s Employment Support Scheme (ESS) has ended on 30 November 2020, it is expected that a new wave of layoffs and business closures will further dampen consumer confidence. According to the PwC’s estimate, given an almost complete halt in Mainland tourist visits and high operating costs in Hong Kong, a number of international brands and local chained retailers have plans to either exit or reduce their presence in the city since the second half of 2019. Coupled with the impact of COVID-19, by the end of 2020, international big names such as Gap, Topshop, Victoria Secret, Line Friends and Folli Follie have closed down all of their stores in Hong Kong and exited the market.

As immediate relief measures to help tide the retail and catering industry over the financial difficulties, Government has launched a number of subsidy schemes on top of the ESS. For retailers, the “Retail Sector Subsidy Scheme” was launched under the Anti-epidemic Fund (AEF) on 23 March 2020. A sum of HK$5.6 billion is earmarked and is expected to benefit some 70,000 retailers, covering shops that sell tangible goods. Each eligible retail store will receive a one-off subsidy of HK$80,000.

For caterers, the “Food License Holders Subsidy Scheme” under the AEF, managed by the Food and Environmental Hygiene Department (FEHD) was open to applications from March 2020 to May 2020 from eligible food license holders. A one-off subsidy of HK$200,000 would be provided to eligible license holders of the premises in operation including general restaurants, marine restaurants and factory canteens; and a subsidy of HK$80,000 would be provided to eligible license holders of the premises in operation including light refreshment restaurants, fresh provision shops, food factories, bakeries and siu mei and lo mei shops.

Moreover, the Catering Business (Social Distancing) Subsidy Scheme (CSS), also under the AEF, was set up to support catering businesses hard hit by the epidemic and social distancing measures. A one-off subsidy ranging from HK$125,000 to HK$2.2 million would be provided to eligible license holders of the premises in operation including general restaurants, light refreshment restaurants, marine restaurants and factory canteens according to the approved floor area of the licensed premises. As of 5 November 2020, around 13,000 applications had been received by the FEHD and over HK$300 million in subsidies had been disbursed to eligible applicants.
Despite the challenging market situations, some sectors are booming or even facing staff shortage, such as e-commerce. Homegrown e-tailer HKTVmall, for example, has seen its unique device visits double from the pre-crisis level to more than 400,000 a day, with daily orders rising to about 30,000 from about 20,000 in 2019. As consumers are increasingly shifting from in-store to online spending to avoid exposure to disease vectors such as cash and point of sale (POS) terminals, e-commerce payments are also set to record a steep increase in 2020 and benefit popular online payment tools such as AlipayHK, WeChat Pay and PayPal. Moreover, brands are increasingly streaming live video over multiple social channels simultaneously, such as Facebook and YouTube, and consumers are allowed to purchase products with a click while watching a video streaming event. In the era of social distancing, brick-and-mortar retailers must rethink their business model and place greater emphasis on driving online presence and sales.

COVID-19 has also transformed the catering industry and dining habits of consumers. For instance, work-from-home arrangements had given rise to the demand for online delivery services. According to Food Panda, one of the leading delivery providers in the city, customer demand on its online platform had grown 100% year-on-year during January and March 2020 alone. Cloud kitchens, which refers to delivery-only restaurants that have no front-of-house and exist solely on food delivery apps, are expected to have a bright role in a post-COVID environment. Riders will now be able to churn out a lot more orders because they are going to one centralized kitchen instead of going to multiple locations. It also takes away from restaurants the need to invest in a costly physical outlet. Meanwhile, with the restaurant dining bans, consumers are becoming more selective in the places they go and having a higher expectation on the quality in order to maximize the cost-effectiveness of their visits. A recent poll also found that a quarter of the city’s young shoppers are now going to reduce their meat intake as a direct result of the pandemic. Healthy and organic food is on the rise, and eateries are providing creative menus with an array of vegan, raw and gluten-free fare.

To cope with the COVID-19 crisis and harness new business opportunities, retailers and caterers are encouraged to accelerate their pace in digital transformation as well as staff upskilling and cross-skilling. A digital evolution would help the Hong Kong retail sector to become less reliant on physical stores and tourism-related sales. Apart from the push factors caused by the pandemic, retailers may also find the incentives to go from offline to online in the long run due to the much higher operating cost of maintaining and expanding brick-and-mortar stores physically. This new trend is further evolved and proliferated against the backdrop of the epidemic and enabled by the flexibility of remote working patterns. In this regard, the Innovation and Technology Commission (ITC) has continued to review and introduced enhancement measures of its Technology Voucher Programme (TVP), which was launched in November 2016, in order to better support local enterprises and organizations in adopting technological services and solutions to improve productivity, upgrade or transform their business processes and enhance their competitiveness. In addition to the existing TVP, the ITC also has launched the “Distance Business Programme” under the AEF to support enterprises to adopt IT solutions to enhance their business and services. A total of HK$1.05 billion has been allocated under the programme, where the fund ceiling for each IT solution and relevant training expenses for the employees is HK$100,000. Each enterprise may receive total funding of up to HK$300,000 to undertake a IT solution project to be implemented within six months. As of 2 November 2020, the “Distance Business Programme” has received 38,572 applications from 32,143 enterprises, among which around 95% of the applications came from small- and medium-sized enterprises.

It is equally important for the retail and catering industry to get more staff training to keep up with their edge and appeal. Current employees can be retrained in the skills needed by other available job positions within the same company or across industries. Chef specialized in Chinese cuisine could be retrained to work for factories that make mooncakes. Sales representatives could be upskilled to fit for job roles not limiting to the retail sector, such as relationship manager roles in banking. Training providers offering career enhancement in Hong Kong could come up with solutions to tackle the mismatched manpower resources in terms of reskilling employees.

It is hoped that the above measures could facilitate the long-term development of more diversified mix of the retail landscape and sustainable growth in Hong Kong’s retail industry through digitization of business processes as well as upskilling and re-skilling as traditional business models are being challenged and transformed under the pandemic.
REINVENTING AND REVITALIZING HONG KONG’S TOURISM, MICE AND HOSPITALITY SECTORS

Being one of the pillar industries in Hong Kong, tourism and hospitality sector has been subject to multiple blows of economic downturn since the second half of 2019. Due to travel restrictions and quarantine measures imposed worldwide under the COVID-19 epidemic, the tourism industry has been hard hit with cross-border people flow almost coming to a standstill. Hong Kong only received a total of 7,817 visitors in October 2020, representing a daily average of about 252 and a 99.8% drop year-on-year. On the whole during the first ten months in 2020, the total number of visitors to Hong Kong has slumped by 92.9% from 50 million to 3.5 million compared to the same period in 2019. The overall occupancy rate for hotels and guesthouses has dropped to 29% in February 2020, with the greatest impact on the high tariff A hotels at 14% to 19% during February to June 2020. The hotel industry resolved to promotional “Staycation” offers targeting local residents. The occupancy rate has slowly climbed to 52% for hotels and 56% for guesthouses respectively in September 2020.

The business receipts indices for the “tourism, convention and exhibition services” sector has plummeted from 97.4 in the second quarter of 2019 to single-digit 5.1 in that of 2020. The unemployment rate of the consumption- and tourism-related sectors combined has continued to rise to 11.2% in August to October 2020, and marked a record high since the onslaught of SARS outbreak in 2003. Theme park operators were among the ones most severely affected. Due to the pandemic, Ocean Park and Hong Kong Disneyland had been closed since January 2020. Shortly after reopening in June, the parks closed in July and December again respectively in view of resurgence of local COVID-19 cases. In the reopening months, the parks operated at reduced capacity with health and social distancing measures in place. These inevitably reduced the revenues and further added onto the parks’ financial burdens. In May 2020, a HK$5.4 billion bailout fund for the struggling Ocean Park was approved amid much controversy. The long-term prospect for Hong Kong Disneyland was also challenged by Government’s decision not to extend the park’s Phase Two land expansion at the neighbouring site.

The continued impact of the pandemic also surfaced in the aviation market. The Cathay Pacific Group announced a large-scale corporate restructuring on 21 October 2020 and eliminated approximately 8,500 positions, around 24% of the Group’s established headcount. The Group also held a grim business forecast, expecting to operate at 10% of its pre-pandemic capacity for the rest of 2020 and under half capacity for 2021, which was largely in line with International Air Transport Association’s anticipation that passenger travel will return to pre-COVID-19 levels only until 2024. To compensate for the loss of passengers, airlines pivot to cargo by using the cabins of passenger aircraft to provide more cargo capacity, a great number of which was used to carry supplies for the fight against COVID-19. Meanwhile, the nature of business travel has changed irrevocably. Event organizers are now familiar with hybrid event, a fusion of both a live in-person event and virtual online components and expect it to be a staple mode in the post-pandemic world. Unless such business trips can provide the chance to build relationships, network and hash out the finer details of a sensitive deal, otherwise organizations will likely seek communications solution to substitute business travel.

The use of hybrid mode is also gaining popularity in mega events. The “Hong Kong Wine & Dine Festival”, one of the most anticipated annual events of the city, was successfully held over five weeks in end-2020 with a hybrid format for the first time. The Festival featured a dedicated one-stop online hub that offered a series of exciting online experiences, such as an Online Wine Cellar, Gourmet at Home Menus from more than 530 dining outlets, and 34 live-streamed cookery and wine-tasting masterclasses. As for the offline experiences, special deals were offered by over 500 restaurants across the city for consumers to enjoy. This new format was well-received by visitors and participating merchants. Subsequently, the HKTB launched a virtual version of the Christmas Town for the Hong Kong WinterFest, and decided that the 2021 “Chinese New Year Celebration” will not hold a float parade, but as an “online + offline” event.

To support the tourism industry under the economic turmoil, Government has introduced three rounds of Anti-epidemic Fund (AEF) to provide financial support to the industry. In addition to the existing “Travel Agents Incentive Scheme” and the “Green Lifestyle Local Tour Incentive Scheme”, Government has further rolled out relief measures which will benefit travel agents and
According to the 2020 Policy Address, Government will also tap into more cultural and green tourism resources to revive the industry once the epidemic has eased, with a view to offering leisure and travel experience with rich historical and cultural elements to both locals and overseas visitors. One of the initiatives will be “Invigorating Island South”. With the commissioning of the MTR South Island Line (East) in 2016, the connectivity of Wong Chuk Hang, Aberdeen and Ap Lei Chau with other districts has been greatly enhanced. Together with the attractive natural landscape and well-known tourist spots, the Southern District possesses great potential in terms of its cultural and touristic appeal. A series of key projects were proposed, including the (i) rebirth of Ocean Park and opening of its Water World leveraging its strengths in blending education and conservation with entertainment; (ii) revitalizing the Jumbo Floating Restaurant, which is a historic landmark and destination to boost visitors’ confidence in travelling to the city.

Noting that the global tourism landscape will be reshaped and transformed post-COVID, in addition to injecting an additional funding of over HK$700 million for the HKTB to step up external promotion after the epidemic, Government has planned a number of long-term initiatives to scale up Hong Kong’s appeal to both leisure and business tourists. Short-haul itineraries and wellness-themed trips will become the prevailing new trend; while the public health conditions of travel destinations will become the new priorities among travelers. In this regard, a standardized hygiene protocol will be launched jointly by the HKTB and the Hong Kong Quality Assurance Agency (HKQAA) to provide unified guidelines on hygiene and anti-epidemic measures for tourism-related industries. More than 1,800 businesses and outlets have expressed interest in the protocol, which would help strengthen the promotion of Hong Kong as a healthy and safe tourist destination to boost visitors’ confidence in travelling to the city.

Besides efforts in reviving local tourism, Government has been actively examining the feasibility of resuming cross-border travels, with the initial plans to launch a health code system that will allow people to resume travels in the GBA without being quarantined. With effect from 23 November 2020, the “Return2hk – Travel Scheme for Hong Kong Residents Returning from Guangdong Province or Macao without being subject to quarantine under the Compulsory Quarantine of Certain Persons Arriving at Hong Kong Regulation (Cap. 599C)” (“Return2hk Scheme”) has been launched. The Scheme aims to facilitate eligible Hong Kong residents to be exempted from the 14-day compulsory quarantine requirements when returning to Hong Kong from Guangdong Province or Macao as the first step to revive cross-border traffic and people flow. On the first day of the implementation, a total of about 2,140 people returned to Hong Kong under the Scheme. A bilateral Air Travel Bubble (ATB) between Hong Kong and Singapore with designated flights was initially scheduled for launch on 22 November 2020. However, in view of the fourth wave of COVID-19, the ATB was deferred to commence beyond 2020. For the time being, the HKTB has launched “360 Hong Kong Moments” globally to remind the world of Hong Kong as a travel destination with a series of virtual-reality experiences to keep the city’s destination brand alive.

In order to revive the tourism industry at both local and regional level, Government and the HKTB have launched a number of initiatives. In June 2020, the HKTB introduced the “Holiday at Home” campaign to encourage local tourism and consumption through three elements, namely “Insiders’ Guide”, “One-stop Dining, Shopping and Entertainment Offer Platform”, and “Spend-to-redeem Local Tours”. In October 2020, the HKTB enhanced the “Green Lifestyle Local Tour Incentive Scheme” and allowed conditional exemption for licensed travel agents to organize local group tours of not more than 30 persons. Under the enhanced scheme, each travel agent is eligible for doubled cash incentives of HK$200 per head based on the number of green lifestyle local tour participants served. The quota of tour participants for each travel agent to apply for cash incentives will also be increased from the original 500 to 1,000. Although the conditional exemption subsequently had to be removed in late November under the fourth wave of local COVID-19 epidemic, Government would consider relaunching local tourism activities when the epidemic improves locally. In the same month, the HKTB introduced the “Free Tour” programme, under which local residents are eligible to join a free local tour by spending HK$800 or above at brick-and-mortar retail and dining outlets in Hong Kong. The programme lines up with local travel agencies and features about 50 immersive tours. In the first stage of the programme, a total of 10,000 seats were available for reservation on a first-come-first-served basis.

In order to revive the tourism industry at both local and regional level, Government and the HKTB have launched a number of initiatives. In June 2020, the HKTB introduced the “Holiday at Home” campaign to encourage local tourism and consumption through three elements, namely “Insiders’ Guide”, “One-stop Dining, Shopping and Entertainment Offer Platform”, and “Spend-to-redeem Local Tours”. In October 2020, the HKTB enhanced the “Green Lifestyle Local Tour Incentive Scheme” and allowed conditional exemption for licensed travel agents to organize local group tours of not more than 30 persons. Under the enhanced scheme, each travel agent is eligible for doubled cash incentives of HK$200 per head based on the number of green lifestyle local tour participants served. The quota of tour participants for each travel agent to apply for cash incentives will also be increased from the original 500 to 1,000. Although the conditional exemption subsequently had to be removed in late November under the fourth wave of local COVID-19 epidemic, Government would consider relaunching local tourism activities when the epidemic improves locally. In the same month, the HKTB introduced the “Free Tour” programme, under which local residents are eligible to join a free local tour by spending HK$800 or above at brick-and-mortar retail and dining outlets in Hong Kong. The programme lines up with local travel agencies and features about 50 immersive tours. In the first stage of the programme, a total of 10,000 seats were available for reservation on a first-come-first-served basis.

In order to revive the tourism industry at both local and regional level, Government and the HKTB have launched a number of initiatives. In June 2020, the HKTB introduced the “Holiday at Home” campaign to encourage local tourism and consumption through three elements, namely “Insiders’ Guide”, “One-stop Dining, Shopping and Entertainment Offer Platform”, and “Spend-to-redeem Local Tours”. In October 2020, the HKTB enhanced the “Green Lifestyle Local Tour Incentive Scheme” and allowed conditional exemption for licensed travel agents to organize local group tours of not more than 30 persons. Under the enhanced scheme, each travel agent is eligible for doubled cash incentives of HK$200 per head based on the number of green lifestyle local tour participants served. The quota of tour participants for each travel agent to apply for cash incentives will also be increased from the original 500 to 1,000. Although the conditional exemption subsequently had to be removed in late November under the fourth wave of local COVID-19 epidemic, Government would consider relaunching local tourism activities when the epidemic improves locally. In the same month, the HKTB introduced the “Free Tour” programme, under which local residents are eligible to join a free local tour by spending HK$800 or above at brick-and-mortar retail and dining outlets in Hong Kong. The programme lines up with local travel agencies and features about 50 immersive tours. In the first stage of the programme, a total of 10,000 seats were available for reservation on a first-come-first-served basis.

In order to revive the tourism industry at both local and regional level, Government and the HKTB have launched a number of initiatives. In June 2020, the HKTB introduced the “Holiday at Home” campaign to encourage local tourism and consumption through three elements, namely “Insiders’ Guide”, “One-stop Dining, Shopping and Entertainment Offer Platform”, and “Spend-to-redeem Local Tours”. In October 2020, the HKTB enhanced the “Green Lifestyle Local Tour Incentive Scheme” and allowed conditional exemption for licensed travel agents to organize local group tours of not more than 30 persons. Under the enhanced scheme, each travel agent is eligible for doubled cash incentives of HK$200 per head based on the number of green lifestyle local tour participants served. The quota of tour participants for each travel agent to apply for cash incentives will also be increased from the original 500 to 1,000. Although the conditional exemption subsequently had to be removed in late November under the fourth wave of local COVID-19 epidemic, Government would consider relaunching local tourism activities when the epidemic improves locally. In the same month, the HKTB introduced the “Free Tour” programme, under which local residents are eligible to join a free local tour by spending HK$800 or above at brick-and-mortar retail and dining outlets in Hong Kong. The programme lines up with local travel agencies and features about 50 immersive tours. In the first stage of the programme, a total of 10,000 seats were available for reservation on a first-come-first-served basis.
distinctive cultural heritage; (iii) enhancing the cultural and leisure facilities in the vicinity of Aberdeen and Wong Chuk Hang to support eco-tourism in the area; (iv) exploring new marine tourism routes; and (v) exploring the development of a water sports centre at the rehabilitated Shek O Quarry site, etc.

To support the MICE sector, apart from launching the “Convention and Exhibition Industry Subsidy Scheme” with over HK$1 billion committed to subsidize exhibitors of exhibitions organized by the Hong Kong Trade Development Council and participants of its major conventions, Government also plan to upgrade the city’s convention and exhibition (C&E) space and facilities to drive long-term growth. The plan to redevelop the sites of three government towers in Wan Chai North and the Kong Wan Fire Station into C&E facilities, hotel and Grade A office will be taken forward; while the Airport Authority Hong Kong will also invest in the construction of Phase Two of the AsiaWorld-Expo. These two projects are expected to increase C&E space in Hong Kong by more than 40%, thereby enhancing the city’s capacity and competitiveness as an international C&E centre to accommodate and attract mega-scale events.

Although measures are in place to help the industry emerge from the COVID-19 crisis, competition from other regions cannot be overlooked. Korea and Singapore, for example, has been largely successful in driving tourism and MICE businesses. Industry professionals in Hong Kong have voiced out the need for a dedicated high-level government official or bureau to formulate a more comprehensive and timely master plan to take the industry forward. In addition, instead of placing emphasis on driving the number of tourists through low hanging fruits, such master plan should take broader strategic considerations and evaluate which types of tourists the city aims to attract.

For the way forward, although every walk of life are inevitably disrupted by the pandemic, it is hoped that the city can strive with resilience and use disruption as a launchpad for creativity in the challenging and unpredictable times. Tapping on digital marketing strategies and the influential power of the social media, it is an opportunity for Hong Kong to realign its international tourism branding and image that the city will remain as a safe and preferred travel destination across the world.

**LEVERAGING INNOVATION AND TECHNOLOGY TO CREATE A SMART FUTURE**

The implementation of 5G technology is one of the biggest steps in Innovation & Technology (I&T) sector in Hong Kong. 5G, the fifth generation of mobile telecommunications, promises a much faster download as well as upload speed, at the same time a lower response time but a more stable networking compared to the previous generations. On 1 April 2020, mobile network operators in Hong Kong including HKT, China Mobile Hong Kong and Hutchinson launched their 5G services. According to the Groupe Speciale Mobile Association ("GSMA"), an industry body representing mobile network operators worldwide, 5G technology is anticipated to contribute over US$2.2 trillion globally by the time of 2034.

According to the 2020 Policy Address, more 5G spectrum in different frequency bands is planned to be released in 2021 in order to provide services in faster speed and higher capacity. Moreover, 5G technology and application will also be adopted in government departments and public organizations. In order to promote the development of the 5G application, Government introduced the Subsidy Scheme for Encouraging Early Deployment of 5G under the Anti-epidemic Fund in June 2020, and later extended the application deadline from November 2020 to May 2021. Under the Scheme, half of the project costs directly related to the deployment of 5G technology would be subsidized, subject to a cap of HK$500,000. After completing the projects, subsidized organizations are required to share and disclose their data and experiences with the industries to benefit their related sectors. As of 6 November 2020, 20 applications have been approved. The approved cases covered various sectors, ranging from remote mechanical maintenance, 3D building information modelling (BIM) in construction sites, e-sports car racing to 4K/8K live video broadcast.

The applications of 5G technology has enabled many possibilities in other countries and cities not limiting to personal use of mobile network. With a faster and more reliable network, virtual reality (“VR”) technology, cloud computing, higher television resolutions and video gaming would be supported. 5G also functions as the base of infrastructure management, autonomous vehicles,
remote machinery and even remote medical surgery\textsuperscript{107}. 5G technology is applied to change the urban landscape in four ways: (1) powering the sensors and devices which support the mobility networks of the city, as a result reducing the number of vehicles on the road; (2) transmitting real-time data including weather, traffic and pollution from numbers of sensors to run city operations; (3) avoiding potential issues on infrastructure networks maintenance from happening; and (4) allowing citizens to access healthcare with sensors to monitor their vital signs\textsuperscript{108}. In the upcoming Winter Olympics in Beijing in 2022, audience will even be allowed to enter the stadium using facial recognition technology as well as ensuring their safety. The collection and big data analysis will also be useful as valuable reference for sports events in the future after the Olympic.\textsuperscript{109}

Although it may be a big misunderstanding among most of the Hong Kong citizens that the only purpose of 5G is to have a faster mobile phone speed, including downloading and uploading videos, and a steadier mobile network connection, it is in fact just a tip of an iceberg of the main functions of 5G technology. According to Hong Kong Applied Science and Technology Research Institute Company Limited, 90% of the usage of 5G technology is in business and industrial sectors.\textsuperscript{110} For instance, ASTRI has been working on enabling 5G applications to enhance the autonomous vehicle experience.\textsuperscript{111} With the commercial roll-out of 5G services in Hong Kong, Hong Kong has sharpened the focus on adapting 5G in cellular vehicle-to-everything communications. This smart technology acts as a bridge between vehicles, pedestrians and roadside communications infrastructure, and thus making the road traffic run more smoothly as well as improving the road safety by means of increasing communications in between.

The adoption of 5G technology can also benefit the manufacturing sector by accelerating its transformation. In order to help SMEs transform their offline machines online and enables Industry 4.0 visualization of machine data, Hong Kong Productivity Council (HKPC) has developed a “Smart Connect” system.\textsuperscript{112} With the implementation of 5G technology, a two-way transmission has been enabled to further advance the system. It enables the administrators and technicians to monitor and control the connected machinery remotely as well as to give swift and accurate response whenever errors are detected. On the other hand, a “HKPC 5G Demo Centre” is planned to be established in Shenzhen in collaboration with China Unicom, with the mission of building industry cases. In the long term, this project will serve as a technology exchange hub for Hong Kong business in the Greater Bay Area and encourage 5G-related research and development.

The launch of 5G services also plays a strategic role in facilitating the smart city development in Hong Kong. The definition of a Smart City can refer to a people-centric and technology-focused city to achieve the goals of increasing the efficiency of city operation and management, improving quality of life, as well as strengthening economic competitiveness\textsuperscript{113}. In order to build Hong Kong into a Smart City, the HKSAR Government has first published the Smart City Blueprint for Hong Kong in 2017, setting out 76 initiatives under six categories, which included Smart Mobility, Smart Living, Smart Environment, Smart People, Smart Government and Smart Economy.\textsuperscript{114} Three key projects that the Government claimed they would take forward include: (1) "iAM Smart", a platform for Hong Kong citizens to use a digital identity and authentication to conduct transactions for government and commercial uses online; (2) installation of smart lampposts for transmitting real-time road data; and (3) "GovCloud", the Next Generation Government Cloud Infrastructure.\textsuperscript{115}

In December 2020, the HKSAR Government released the Smart City Blueprint for Hong Kong 2.0 ("Blueprint 2.0") with more than 130 initiatives to further promote the smart city development.\textsuperscript{116} The proposal includes initiatives that are under implementation or of an ongoing nature, as well as over 60 initiatives under the six main areas with the objective of improving the efficiency and liveability of Hong Kong citizens.\textsuperscript{117}

For Smart Mobility, a number of initiatives are planned to develop an Intelligent Transport System and Traffic Management to address urban challenges and improve quality of living. These include taking forward the Electronic Road Pricing (ERP) pilot scheme in Central, a traffic management tool to address congestion; completing the installation of 1,200 traffic detectors for collection and dissemination of real-time traffic information; and implementing a Free-flow Tolling System at government tolled tunnels and Tsing Sha Control Area by 2024. To promote research and application of vehicle-related I&T, Government also earmarked HK$1 billion for the implementation of the Smart Traffic Fund to provide funding to enterprises or organizations.
For Smart Living and Smart Government, implemented initiatives included the launch of the Faster Payment System, the expansion of free public Wi-Fi hotspot coverage across the city and the setting up of a Big Data Analytics Platform called the Hospital Authority Data Collaboration Laboratory to facilitate healthcare-related research. IAM Smart, formerly known as electronic identity (eID), was launched on 29 December 2020 enabling the access of over 20 frequently used government services, including but not limited to vehicle license renewal online application, tax returns electronic submission and other public utilities. By the end of 2021, the reach of IAM Smart will be extended to 110 types of public services. Government will also explore the use of telehealth, video-conferencing and remote consultation in the city.

For Smart Environment, initiatives and requirements around green building design, smart water meter system, electric vehicle changing stations as well as real-time information for parking lot vacancy will continue to be implemented. Remote sensing devices are also introduced to monitor air pollution index. The use of Internet of Things technology will be explored to improve pest control.

For Smart People, secondary school students will be provided better IT training outside normal curriculum through the implementation of the IT Innovation Lab in Secondary Schools programme. Through enhanced internship programme, Government has been encouraging more science, technology, engineering and mathematics (STEM) graduates to be hired for the R&D industry. On the other hand, young entrepreneurs and start-ups can benefit from the financial and non-financial support provided by Government, as well as the expanded incubation programmes at the Hong Kong Science and Technology Parks (HKSTP) and Cyberport Smart-Space. For instance, HKSTP has launched three incubation programmes for start-ups, namely Incu-App, Incu-Tech and Incu-Bio. Incu-App is a two-year programme helping start-ups develop new solutions from existing technology. Incu-Tech is a three-year programme for start-ups to specialize in deep tech research in order to develop innovative solutions, whereas Incu-Bio is a four-year programme supporting the development of biomedical tech start-ups.

For Smart Economy, FinTech initiatives have been promoted to explore distributed ledger technology applications, for instance, cross-boundary transactions. A Data Technology Hub and an Advanced Manufacturing Centre will be built by 2020 and 2022 respectively. Supported by the Central Government, the Hong Kong-Shenzhen Innovation and Technology (I&T) Park at Lok Ma Chau Loop will be developed for the uses of IT companies, tertiary educational institutes and research institutions of Hong Kong and Mainland China. Besides the I&T Park, the two Governments are also exploring the feasibility of allowing the lease of HKSTP, together of managing some areas of the I&T Zone in Futian, Shenzhen. It is believed that this could attract institutes and enterprises interested in starting their business in the GBA to establish their presence.

Control and prevention works against COVID-19 have transformed conventional business models. To address the new normal and incorporate the need for wider use of technologies into Government’s operation, Blueprint 2.0 also provided a chapter on “Use of I&T in combating COVID-19”. The new chapter covers work implemented or being planned, including the deployment of the “StayHomeSafe” home quarantine system and “LeaveHomeSafe” exposure notification and mobile app. Government also allocated an extra HK$60 million for setting up the first Geospatial Lab in Hong Kong to encourage the public to make good use of the spatial data in developing mobile applications. A high-quality city-wide 3D digital map will be rolled out. Expected by the end of 2022, the Common Spatial Data Infrastructure Portal will be in full operation.

Apart from the six smart areas under the Blueprint 2.0, Government announced several initiatives which aim to establish Hong Kong as the regional and global I&T hub. A five-year Global STEM Professorship Scheme will be launched, which is estimated to cost HK$2 billion as announced in the Policy Address. The Scheme aims at attracting more overseas I&T talents to work in Asia. Apart from that, to encourage more technology talents to relocate and work in the GBA, wage subsidies will be provided by Government for Hong Kong companies to hire employees in the GBA.

Hong Kong Science Park Expansion Programme Phase Two is also an important milestone for the I&T sector in Hong Kong. The 22-hectare Park located in Pak Shek Kok is an important IT
infrastructure which makes suitable buildings for lease to technology-related enterprises.\textsuperscript{121} According to Financial Secretary's 2020-21 Budget, HK$3 billion has been earmarked for the Phase Two of the Expansion Programme.\textsuperscript{122} In the programme, InnoCell is to be developed to provide around 500 residential units for leasing to employees and visiting researchers from the Mainland China and overseas. Apart from the InnoCell residential units, two InnoHK research clusters will also be developed which focus on healthcare technologies (Health@InnoHK) and artificial intelligence (AI) and robotics technologies (AIR@InnoHK) respectively.\textsuperscript{123}

While Hong Kong is on its way to developing as a smart city, there remains much work to be done. To support the ongoing I&T development in Hong Kong, the city needs to have a workforce that fit for the future\textsuperscript{124}. In a survey conducted by Michael Page, 64\% of corporates experienced difficulty in finding such talent locally, who are crucial to powering the digital ecosystems of a smart city. To address the lack of talent, it is necessary to intensify STEM training programmes for curriculum leaders, source talent from abroad to upskill the I&T workforce, and ramp up support to young entrepreneurs to foster a strong I&T culture. Moreover, cooperation between the public and private sector is essential to successful smart city development. Corporates can work together with government departments to co-create smart city initiatives, and with universities, start-ups and other companies to seek out new I&T opportunities. Last but not least, citizen engagement must be encouraged in order for initiatives to reach their objectives. More pilot schemes can be rolled out and on a bigger scale so that citizens become familiar with new initiatives and the associated benefits.

### 2. SOCIAL FACTORS

**Sustainability as the New Business Imperative**

Over the years, corporate social responsibility (CSR), a practice of businesses holding themselves accountable to serve a social purpose and make a positive impact, has been perceived in various ways mostly for philanthropy or reputation building. Yet in recent years, there are increasing demands for corporations to prioritize purpose as much as profit. In his annual letter to CEOs in 2018 entitled “A Sense of Purpose”, Mr Larry Fink, the Founder, Chairman and CEO of the world’s largest investment firm BlackRock, urged that “companies must benefit all of their stakeholders, including shareholders, employees, customers, and the communities in which they operate”. The letter marked a watershed moment in defining the role of the private sector in addressing social and environmental issues, and has sparked conversations and inspired actions in this regard.

At a global level, purpose business and sustainability has drawn attention from across the present and future generations. In 2015, 193 member states of the United Nations (UN) adopted a set of 17 Goals as part of a “Transforming our world: the 2030 Agenda for Sustainable Development”. The Goals will stimulate action over the next 15 years to end poverty, achieve equality, and protect our planet from climate change.\textsuperscript{125} Separately in 2018, 181 CEOs of the US’s largest corporations came together and signed a new “Statement on the Purpose of a Corporation”, and committed to lead their companies for the benefit of all stakeholders including customers, employees, suppliers, communities and shareholders. Although such targets and pacts are building momentum behind the sustainability and purpose movement, some criticized them for lacking details on how this new philosophy can be operationalized or practiced.

The Sustainable Development Goals (SDGs) set by the UN are relevant to Hong Kong in various aspects, such as issues related to health and education, combating climate change, and making cities more sustainable.\textsuperscript{126} Large corporates in Hong Kong have become aware of the opportunities that SDGs can bring for the company, and begin to derive strategic concepts and corporate measures. For instance, banks are incentivising borrowers who can meet certain sustainability targets with lower borrowing costs. DBS Hong Kong provided a hedge against interest rate risk related to the New World Development Company (NWD)’s HK$1 billion five-year sustainability-linked loan.\textsuperscript{127}

More recently, the notion of Creating Shared Value (CSV) is emerging as the guiding principle for businesses. CSV is a concept first introduced in an influential article by Prof Michael Porter and Michael Kramer titled “Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility”. It is a strategic business development practice of creating
economic value in a way that also creates societal value by addressing society’s needs and challenges, such as social and environmental conditions.\textsuperscript{128} Shared value could be created in three ways, namely (1) reconceiving products and markets to provide appropriate services and meet unmet needs, (2) redefining productivity in the value chain to mitigate risks and boost productivity, and (3) enabling local cluster development by improving the external framework that supports the company’s operations.\textsuperscript{129} One successful example of CSV in Hong Kong was done by the Airport Authority (AA). Under the vision for community investment and having identified the needs of the neighbouring communities, the EXTRA MILE project was rolled out in early 2018 - a collective platform for AAHK and participating business partners to attract and retain talent for the airport community by investing in, and unleashing the potential of, three specific target groups, namely working youth, non-Chinese speakers and airport staff with children. Under EXTRA MILE, three projects were launched, namely “Working Holiday@Lantau”, a one-year work placement programme encompassing accommodation and exploratory elements to motivate working youth and facilitate their people skill development; “Pioneer”, a one-year work placement programme for non-Chinese speakers (NCS) with leadership potential to nurture team leaders who may act as a bridge between local supervisors and NCS employees; and “EduCare”, a one-academc-year after-school care programme for Tung Chung primary school children whose parents are working at HKIA, covering tutorial services, exposure programmes and family support. Through EXTRA MILE, not only did the HKAA established a stronger talent pipeline and strengthened employee supports, people in the local Lantau community were also provided with precise work experience and training that would benefit their career development in the long run.\textsuperscript{130}

While COVID-19 poses challenges to corporates with regard to CSV since survival is of paramount importance to any other purposes, it also offers opportunities for businesses to utilize their unique edge to help strengthen the most vulnerable groups in the community when facing a crisis. Recognizing that the community has been facing an unprecedented health crisis and economic hardship, 7-Eleven saw its extensive store network as an edge it could leverage on to support the society and its business partners along with the public’s generosity. The convenience store chain launched the “Give a Voucher, Donate a Meal” campaign which encouraged convenient store goers to buy meal vouchers at HK$15 each for the underprivileged who needed food assistance, allowing the later to present the voucher at any 7-Eleven to redeem a hot meal in a more convenient and dignified manner. The marketing campaign was at the same time a life-changing charitable programme that sent a positive message to the public and a call to action to produce wider social impact, bringing not only remarkable marketing benefit, but also the much-needed support for those most prone to the economic impacts of the pandemic.\textsuperscript{131} In the post COVID-19 world, it is hoped that businesses will move on from one-off “feel good” corporate social responsibility initiatives to alignment of strategies of CSV and integrating them into their daily operations.

The global public health crisis also made it probable that production and consumption will be disrupted for the long-term. Businesses that can adapt to the post-crisis marketplace by repurposing assets and business models to serve people better will come out on top. One of such new trends is the switch to greener diets. According to a survey conducted by US market research firm OnePoll in September 2020, nearly 60% of Americans are now transitioning to a flexitarian or plant-based diet. It further said that since the pandemic began, over half of Americans have reduced their consumption of animal products, with the top cited reason being sustainability.\textsuperscript{132} In Hong Kong, plant-based group Green Monday launched in October 2020 a milestone partnership with McDonald’s to roll out an all-new plant-based menu across the city using next-gen pork analogues developed by Green Monday’s food tech arm OmniFoods. In a city where over 70% eat luncheon meat at least once a week, partnership means millions can eat a cholesterol-free, plant-based version of what is traditionally considered a fairly unhealthy food.\textsuperscript{133}

To summarize, sustainability in Hong Kong is now at a tipping point. Although there is general awareness among the public and private sectors towards the topic, steps taken by far are small in scale and yet well-integrated with business and operation. As more and more consumers are placing higher value on social goods, businesses should place sustainability and CSV higher on the agenda, which can also help retain talents or attract customers. While businesses come out of the COVID-19 whirlwind, some will take the opportunity to recap on the learnings from the crisis: where did their expertise matter, what were they able to contribute to their community, how can they build resilience going forward and adapt to the new normal. For those, CSV will be a good framework to define new strategies and invent new business models.
A CHALLENGING FUTURE FOR BOTH EMPLOYERS AND EMPLOYEES UNDER THE NEW NORMAL

The coronavirus epidemic has brought a tremendous amount of pressure on employment activities, with employers as well as employees forced to deal with unprecedented major changes to workplace dynamics.

Although overall wages continued to increase in nominal terms in June 2020 over a year earlier, the rate of increase had decelerated to the slowest in more than a decade as the COVID-19 pandemic continued to weigh on a wide range of economic activities. The nominal growth in payroll per person engaged, which also covers discretionary bonuses and other irregular payments, saw a deceleration in the second quarter of 2020 to the slowest in close to a decade. Payroll per person engaged in transportation, storage, postal and courier services, and accommodation and food service activities saw enlarged declines. Payroll per person engaged in other major sectors, including manufacturing, import/export and wholesale trades, retail trades, information and communications, financial and insurance activities, real estate activities, professional and business services and social and personal services, either switched to decline or saw decelerated growth.134

Government's data showed that the unemployment rate has drastically increased when compared to the same period in 2019. The latest unemployment rate up to October 2020 had been a whopping 6.4%, more than doubled the overall figure of 2.9% in 2019.135 According to the figures released in September 2020 by the Census and Statistics Department, total employment in the private sector surveyed decreased by 5.1% in June 2020 compared with 2019. Decreases in employment were mainly recorded in the industries of food and beverage services (-15.4%), accommodation services (covering hotels, guesthouses, boarding houses and other establishments providing short term accommodation) (-14.4%), import and export trade (-12.3%), wholesale (-10.0%), and retail trade (-8.1%). On the other hand, employment increased mainly in the industry of human health services (4.6%).136

When Hong Kong was hit by the SARS epidemic 17 years ago, the overall unemployment rate climbed to 8.5%. By comparison, the unemployment rate of 6.4% in October 2020 under the COVID-19 pandemic was relatively moderate. However, under both health emergencies, the youth group aged 15-24 was seriously affected. The unemployment rate for 15-19-year-olds reached 33% in 2003. Though the unemployment rate in October 2020 for the same age group was not that shocking, the rates for the 15-19 and 20-24 groups were still two and three times higher than the overall rate, reaching 18.8% and 14.3% respectively, the highest among all age groups.137 Data from the Joint Institution Job Information System also showed about 25,200 jobs were available for fresh graduates from July to November this year, down 24% from 33,400 during the same period in 2019. A survey done by JobsDB on 1,200 recent graduates between August and October found their average starting monthly salary was HK$16,077, down 3.7% from HK$16,692 in 2019 – the biggest recorded drop since the study was first conducted five years ago.138

To combat the youth unemployment issue, Government is encouraging young people to pursue a career in the Greater Bay Area (GBA) through launching the Greater Bay Area Youth Employment Scheme. This will encourage employers that operate in Hong Kong and the GBA to recruit university graduates to work in the region. The scheme will provide 2,000 places.139 Also, to create more sector-specific job opportunities, the Chief Executive has announced in the 2020 Policy Address that Government will invest in a series of environmental projects in the next few years, creating an estimated 4,000 job opportunities. These new roles will cover sectors such as scientific research, architecture and engineering, recycling and transport, and are particularly suitable for young people graduating in recent years. Government will also collaborate with large property management companies and subsidize them to employ more young people, and consider providing wage subsidies to attract more newcomers to pursue a career in the creative industries.140

As for broad-based relief measures, Government launched the Employment Support Scheme (ESS) under the Anti-epidemic Fund (AEF) to provide time-limited financial support to employers to retain employees who may otherwise be made redundant.141 Two tranches of the ESS were open for application to subsidize the payments for staff wages between June 2020 and November 2020. In the first tranche, Government had received a total of 168,799 applications, which accounted for about two-third of the eligible employers. As of 22 June 2020142, a total of HK$11.4 billion had
been dispersed to 59,500 employers, involving 490,000 committed headcount of employees. It was notable that 98% of the employers were from micro-, small- or medium-sized enterprises with fewer than 50 employees. As for the second tranche, the ESS has approved wage subsidies to a total of about 135,000 employers, with subsidies totalling almost HK$37 billion and a total committed headcount of paid employees of about 1.56 million as of 21 October 2020.\footnote{143}

In addition to ESS, Government also earmarked funding provision under the AEF for the "Job Creation Scheme", which aims to relieve the worsening unemployment situation brought by the epidemic through the creation of 30,000 time-limited jobs in the public and private sectors in the coming two years. As of end October 2020, around 29,000 jobs had been created, among which around 7,500 jobs were suitable for low-skilled employees.\footnote{144}

To provide more vocational training and employment choices to the unemployed who is willing to work, the Employees Retraining Board (ERB) has launched the third tranche of the “Love Upgrading Special Scheme for Retraining” in January 2021, immediately after the completion of its second tranche. In the new tranche of the Scheme, the number of training places was doubled to enable 20,000 trainees to receive training and an allowance during the training period. While the Scheme does not impose academic qualification requirements on trainees, it aims at enhancing their competitiveness in the job market by encouraging them to participate in cross-industry training and helping them re-join the employment market as early as possible. On the other hand, it is noticed that some sectors are facing staff shortage despite the high overall unemployment rate. To tackle the issue of mismatched manpower resources, the Labour Department (LD) will step up its efforts to enhance matching between employers and job seekers, strengthen its liaison with employers with recruitment needs, and organize more thematic job fairs to help job seekers secure employment.

For sectors that face persistent manpower shortages, such as the care sector, employers are also encouraged to participate in the ERB’s “First-Hire-Then-Train Scheme” and the LD’s “Employment Programme for the Elderly and Middle-aged”\footnote{145} so that they can apply for the on-the-job training allowance to facilitate a more balanced match of manpower resources in the labour market.

Apart from shaking up the job market, COVID-19 also had a profound impact on the method of interaction between people, which prompted employers to rethink the future of workplace. For instance, some employers have switched to virtual internships as coronavirus pandemic upends office life. The Hong Kong Federation of Youth Groups conducted an online survey during September and October 2020, interviewing over 870 university students and graduates. Of the 457 who participated in internships, 54% of them had been introduced to a virtual internship, another 10% got their internship or training provided by their school instead and 17% got their internship shortened. The shift to virtual internships comes with some limitations and disappointment. Among those respondents who were on virtual internships, most of them said although they offered greater flexibility in work, they lacked social interaction with colleagues and limited their learning through work. Over 80% of them considered it impossible for virtual internships to replace normal internships.\footnote{146}

Another major change in workplace is that employers were called to adopt measures such as work-from-home and flexible hour arrangements to prevent a community-wide COVID outbreak. According to a study conducted by FastLane and Wantedly, before the pandemic, only 11% of SME employees in Hong Kong were offered WFH arrangements. The number had increased to 60% due to the pandemic. However, employers had been found to be unfamiliar with such arrangements. Most employers stated that they have benefited from the arrangements, with over a quarter responding that they enjoyed the flexibility, and another quarter saying that they had saved time from commuting. Due to the sudden shift to WFH, over 75% of employees stated that there was a lack of company internal structure to allow access to documents or communication tools needed, so they were not able to fulfill their responsibilities fully.\footnote{147} In fact, a study by Randstad showed that three out of 10 employees do not have the support needed to work remotely. Challenges include information and communication technology requirements, access to data and information security, as well as the lack of space at home to allow a make-shift home office.\footnote{148}

For work-from-home to become a successful work arrangement in Hong Kong, investing in technology to adapt to the new working environment is inevitable. KPMG conducted a 2020 HR Pulse Survey in July and August 2020 covering 59 countries and territories and 31 key industry sectors. According to the survey results, "adopting digital technologies to support
remote working and collaboration” was identified as among, or for some markets like Hong Kong, the most important initiatives for the HR function in managing the implications of the pandemic and moving to a new working reality over the next two years.\textsuperscript{159} The same study also found that, with 39% of employees set to continue to work remotely over the next two years, a hybrid model of attendance could become increasingly mainstream. As a result, there had been an unprecedented investment in digital technology to support remote employees and work and to ensure talent pipelines adapt to these new demands. Unsurprisingly, collaboration tools and solutions became one of the biggest technology investments made due to their fundamental enabling roles to increasing team visibility, maintaining productivity, and achieving business outcomes.\textsuperscript{150}

The new ways of work also inflicted a wave of new mental-health challenges. A survey by the Economist Intelligence Unit (EIU) on workers in Canada, France, UK, UAE and Singapore linked digital working practices to increased isolation and stress. 44% of people in the EIU survey cited distractions or caring responsibilities in the home as their greatest challenge while working remotely. This figure rose to almost half when considering only working mothers. Also concerning was that one in eight people in the survey noted dealing with isolation as their biggest strain – a known risk factor for mental illnesses including depression. The study also found that six out of ten people had not had an honest conversation about their mental wellbeing with their employer since the imposition of COVID-19 restrictions and over a third did not feel sufficiently supported on their mental health. If such challenges continue in the long term, they could cancel out any benefits for employees in the “new normal” of more working from home.\textsuperscript{151}

Whether employers are using WFH as a temporary measure or determining to adopt it even after the COVID-19 pandemic, they should be aware of the pitfalls and fully comprehend the risks involved when an employee’s “home” is turned into a “workplace”, such as cybersecurity, health and safety as well as remote engagement and communication issues.

**HEALTHCARE SECTORS PUT TO THE TEST AS GLOBAL EPIDEMIC Lingers**

The outbreak of COVID-19 has spread across the world since December 2019. This global epidemic has led to a dramatic loss of human lives worldwide, created prolonged severe impacts on public health and livelihoods, and caused devastating economic and social disruptions. Over 79 million cases and over 1.7 million deaths had been reported globally since the start of the pandemic.\textsuperscript{152} After a year-long fight against the epidemic, the situation in Hong Kong has remained unstable and shown no sign of abating, with Hong Kong tackling the fourth wave of outbreak which put the city’s number of confirmed cases above 9,000 while leaving more than 150 dead as of 5 January 2021.\textsuperscript{153} The growing number of confirmed infections and untraceable coronavirus cases warned the public that the multiple waves of coronavirus outbreak have been getting worse. It also exerted tremendous pressure on healthcare systems and traumatic stress in healthcare workers, with news of coronavirus patients having reportedly waited for days and still not been admitted to hospital since July 2020.\textsuperscript{154}

To fight against the virus, Government has implemented various social distancing measures to strengthen epidemic control by guarding against the importation of cases and the resurgence of domestic infections, and to further enhance the precision of the control measures to be taken. Government launched the Universal Community Testing Programme in mid-September with the support of the Central Government, which provided voluntary virus testing services for more than 1.7 million people\textsuperscript{155} to identify asymptomatic patients, cut the community transmission chain and achieve the target of “zero infection”. To deal with multiple waves of epidemic, Government has also set up community testing centres in different districts since 15 November 2020, for an initial period of three months, which may be extended depending on the situation. These centres provide self-paid testing services to citizens to serve general community or private purposes such as certification for travelling or work, excluding medical diagnosis and treatment.\textsuperscript{156} In situations when there was a higher risk of community transmission, Government has also conducted testing for different target groups at the testing centres for public health reasons on a need-basis to identify infections and prevent further virus transmission. Since December 2020, vending machines had been set up at the unpaid area of 10 MTR stations, distributing 14,000 specimen collection packs on a daily basis.\textsuperscript{157}

With the concerted efforts of Government and the local private sector providing virus testing
service, the testing capacity has increased from several thousand per day initially to over 100 000, and the cost of testing has also dropped substantially\textsuperscript{158}. Government has also set up more quarantine centres, subsidized the production of masks and other personal protective equipment locally.

In addition, the Hospital Authority established the community treatment facility at AsiaWorld-Expo, which began to admit COVID-19 confirmed patients who showed mild symptoms and were able to perform basic self-care in August 2020. The expansion of the facility was also completed in October to further triage patients and shorten the waiting time before admission for newly confirmed patients. Together with the community isolation facility established earlier in Lei Yue Mun Park and Holiday Village, and the anticipated completion of a temporary hospital in January 2021, it is expected that more isolation wards in public hospitals can be availed for the care of more severe patients\textsuperscript{159}.

The recurrent expenditure of Government on healthcare has been increasing over the years from $62.6 billion in 2017-18 to $87.1 billion in 2020-21. According to its 2020-21 Budget, Government has provided financial support for the Hospital Authority and the Department of Health for anti-epidemic efforts, including a recurrent funding of HK$75 billion to the authority in 2020-21, an increase of 35% from 2017-18\textsuperscript{160}. It has also provided an additional funding of HK$300 billion for the development of public healthcare facilities and healthcare teaching facilities\textsuperscript{161}.

On the other hand, Government continued to attach great importance to primary healthcare development. After starting to operate the first District Health Centre (DHC) in Kwai Tsing District in September 2019, it awarded operation service contracts for DHCs of another two districts, and confirmed the sites for nine other DHCs. The Food and Health Bureau would also look into the implementation of a Pilot Public-Private Partnership Programme for DHCs to enhance the measures to manage the chronic disease and alleviate the pressure on the public healthcare system\textsuperscript{162}.

Nevertheless, in view of the disastrous development of the global epidemic, mass vaccination is the only solution to stop it. To safeguard public health, Government is adopting a dual-track strategy in procuring COVID-19 vaccines. It joined the international arrangement - COVAX (COVID-19 vaccine Global Access) Facility, and has been negotiating and signing advance purchase agreements with research companies and drug production companies\textsuperscript{163} to support Hong Kong in ensuring the supply of vaccines. It plans to offer the entire public free vaccination next year on a voluntary basis, with priority for frontline workers and the elderly, but it could take until the end of 2021 to get everyone vaccinated. Hong Kong has so far struck deals to purchase 22.5 million doses of vaccines, with 7.5 million doses each coming from three suppliers: Beijing-based Sinovac Biotech; Fosun Pharma which offered the vaccine co-developed by Germany’s BioNTech and US-based Pfizer; and British-Swedish firm AstraZeneca. Scientists from the University of Hong Kong, together with researchers in Mainland China, are also developing a nasal spray vaccine against COVID-19, the first such medication approved for testing on humans\textsuperscript{164}.

Although COVID-19 has put much pressure on the entire healthcare system, it has promoted new areas of development such as telemedicine. Telemedicine has been regarded as one of the strategic solutions for tackling the ageing population and reducing medical burden, but the development of telemedicine was slow in a densely populated city like Hong Kong where clinics offering traditional face-to-face medical consultation are within easy reach. However, the global epidemic has led to a much greater demand for online consultation. The number of online consultations has multiplied as patients hesitated to visit doctors, which ended up speeding the implementation of telemedicine and development of smart medical services in Hong Kong.

In December 2019, the Medical Council of Hong Kong formally announced the guidelines for telemedicine, which required doctors in the city to exercise the same level of care during an online consultation as an in-person consultation\textsuperscript{165}. Contravention may render a doctor liable to disciplinary proceedings\textsuperscript{166}. In response to the COVID-19 outbreak, different doctor associations, hospitals and smart health companies have begun to develop online medical services platform to meet the public needs. For example, HKT developed the DrGo app and partnered with Gleneagles Hospital Hong Kong, Precious Blood Hospital (Caritas) and Union Medical Healthcare to provide telemedicine video consultation. The app connects people with Hong Kong-registered doctors and enables them to book an appointment and consult doctors via video calls\textsuperscript{167}.
Another example is the “Doctor Know” portal, a platform launched by Chinese medicine pharmacists association, local universities and Chinese medicine practitioners to build a reliable information and clinical service platform based on scientific and/or expert advice, targeting influenza in general, and COVID-19 in particular. The portal serves the community in providing telemedicine consultation when there is a need for social distancing and “quarantine”. It helps the needy and high-risk population by providing free consultation and free medication for needy patients; and facilitates tripartite collaboration of academics, charity organization and commercial sector to serve our community, conduct research, and enhance the position of Chinese medicine locally and globally. Artificial intelligence telemedicine diagnosis systems were also developed to analyze the data conveyed via the patient's mobile phone, and responded with recommendations for the patient accordingly, facilitating the remote monitoring medical team’s follow-up work.

While COVID-19 has ignited discussion on the use of telemedicine, critics opined that the key to the doctor-patient relationship should be human touch. Some industry professionals recommend its use for check-ups and in which a prior in-person relationship exists between a doctor and a patient, as physical examination of a patient is one of the most important aspects in reaching a diagnosis. Another uncertainty surrounding the provision of telemedicine services is the lack of a specific legislation on telemedicine in Hong Kong. Although there is a guideline from the Medical Council of Hong Kong, it is not legally binding and not exhaustive.

Apart from COVID-19-related trends and developments, another issue worth noticing is the city’s ageing population. According to a report titled Hong Kong Population Projections 2020-2069, the Census and Statistics Department forecasted that the city’s population would increase from 7.51 million in mid-2019 to a peak of 8.11 million by mid-2041, and then drop to 7.35 million by mid-2069, by when the elderly would account for 38.4% of the population. By just 2039, 33.3% of the Hong Kong population would be 65 years or above, almost doubling the 2019 number of 18.4%. Hong Kong is not alone when it comes to the issue of ageing population. According to the World Population Ageing 2020 Highlights, prepared by the Population Division of the United Nations Department of Economic and Social Affairs, in 2020, there were an estimated 727 million persons aged 65 years or over worldwide. This number was projected to more than double by 2050, reaching over 1.5 billion persons. The share of older persons in the global population is expected to increase from 9.3% in 2020 to 16% in 2050, meaning that by mid-century, one in six people globally will be aged 65 years or older.

Care needs of elderly persons generally increase with age and so does their need for long-term care services. With the rapid increase of elderly in the population and the decrease of family carers in the coming decades, the upward pressure on service demand will be very severe. The existing service pattern also poses a great challenge to our meeting of the service demand. In view of the overall shortage of land supply, manpower and the lead time from planning to ready for service, it is highly unlikely that such demand could be met. The situation calls for a re-examination of the existing service pattern. The socio-demographic characteristics of the elderly population are changing: future generations of elderly persons are expected to live longer, more health-conscious, have higher education attainment, more able to catch up with the information and technology development, and financially more capable. They will have higher expectations on the diversity and quality of elderly services and will ask for more flexibility and control in the choice of service. While they are expected to be of better health in general, incidences of age-related illnesses such as dementia are expected to increase in view of the increase in life expectancy.

In the face of worldwide population ageing at a rapid rate, there is a growing consensus among welfare organizations and healthcare providers on using novel technology to meet the needs of elderly and their caregivers. The demand for innovative yet accessible technology addressing the challenge of “silver tsunami” is growing.

Gerontechnology is a combination of elderly care services and technological advancement in response to the issues presented by an ageing population. In recent years, various sectors have been researching and developing technological solutions to improve care for the elderly and enhance their quality of life. Apart from surveillance and emergency assistance systems, the advent of virtual reality (VR) makes possible unprecedented immersion and user experience in elderly cognitive training that help reinforce memory and prevent falls. The other application that VR and other smart interactive technologies may come into play is to help elderly counteract social isolation and achieve psychological well-being. For instance, by means of VR “virtual travel”, elderly may feel like...
they are out of the home, thereby easing their anxiety and loneliness. The adoption of gerontech products will modernize the elderly care field, professionalize the sector and attract the tech-savvy younger generation to join the eldercare industry.

One of the biggest challenges of adoption of gerontotechnology in Hong Kong is that collaboration between different stakeholders is insufficient. On the user end, elderly care service operators and family carers are unaware or unfamiliar with the latest gerontech development; while on the R&D end, developers do not have opportunities to engage users and can only develop prototypes in a lab environment. Developers need to understand the real needs and living environment of users so as to create pragmatic and user-friendly designs. Testing of products in real service environments will improve user engagement, allow developers to gain a better understanding of user experiences and usability of their products before entering the market, and encourage the modification of products to effectively address the needs of older adults.174

With vaccines against COVID-19 being rapidly developed, tested and, hopefully, put into use in the foreseeable future, which should eventually bring the pandemic to an end, it is hoped that Government will then be able to re-focus and allocate resources on the increasingly pressing issue of population ageing, so as to ensure the long-term sustainability of the city’s healthcare system.

**PANDEMIC DISRUPTED EDUCATION INDUSTRY AND PUSHED TRANSFORMATION OF LEARNING HABITS AND NEEDS**

The outbreak of multiple waves of COVID-19 throughout 2020 has highly affected the mode of delivery in local institutions and disrupted the education sector. To prevent the spread of the pandemic in schools, Government has adopted stringent measures to suspend face-to-face classes and school activities on a number of occasions. Students have been asked to stay home and pursue their study online to achieve “no suspension of learning despite suspension of classes” under the pandemic, causing a substantial increase in online learning. Universities and institutions responded by rushing to develop and launch mandatory online classes to fill a void that may endure for the rest of the academic year.175

A blend of online and in-person lessons is set to be the education world’s “new normal” in the wake of COVID-19. Students are still able to continue their studies during class suspension and maintain a certain extent of learning at home through flexibly deploying various innovative methods. Universities and institutions have adopted diversified strategies to support students in their home learning through electronic means such as producing teaching videos, conducting real-time online teaching, and using online platforms and learning management systems. They have also devised and implemented learning plans for different subjects so that students could continue to learn systematically.176

Since much of the training that was originally planned for the classroom has now been delivered online, there has been a surge in the demand for electronic teaching materials. To provide more support to both students and lecturers to implement blended mode of teaching and learning, EDB has collaborated with the Hong Kong Education City to launch a dedicated webpage "Online Learning 360°” to consolidate existing e-learning resources and propose learning schedules for the reference of schools and lecturers. The EDB will also set aside HK$2 billion in the Quality Education Fund to launch a three-year programme to support the provision of ancillary facilities for e-learning, such as setting up a platform for sharing learning and teaching resources and encouraging the sharing of quality teaching materials by lecturers. Schools will also be subsidized to purchase mobile computer devices for loan to needy students and to provide Wi-Fi routers and mobile data cards for students who do not have access to appropriate internet services because of their living environment.

Although online learning seems to be the effective solution to continue education, there has been controversy over online learning. Some students and school operators expressed their pressure in online learning and concerns about effectiveness of online teaching. In the research of 1,227 university students conducted by School of Graduate Studies of Lingnan University, only 27% of the respondents were satisfied with their online learning during the pandemic, and 60% found online learning less beneficial than classroom teaching. Factors affecting the effectiveness of online learning included the “stability of internet connection” (60%), no “in-class interaction” (50%) and
lack of “after-class communication and engagement with instructors” (46%). The three main challenges of online learning were lack of self-discipline (60%), a poor learning atmosphere (56%), and eye fatigue due to long screen time (55%)177. In another survey on learning experience with Zoom conducted with 1,996 university students by The Chinese University of Hong Kong, the respondents have commented on some good aspects of Zoom including “more comfortable to raise questions”, “active participation in chat box”, “clear view of presentation slides” and “saving travel time”178. These feedbacks showed that traditional classroom learning cannot be fully replaced at present. Delivery of courses solely based on online learning on its own is not totally satisfactory especially in terms of interaction and engagement. A blended learning mode that retains some form of face-to-face teaching and makes good use of advantages of online learning at the same time may be a better option. There is also a need for higher education institutions to improve course structure and students' online learning skills to enhance learning satisfaction. Through the proper course design, better integration of assessment, learning activities and use of technology for facilitating interactions via online community, meaningful blended learning experience can be provided.

As online learning become a more permanent feature of adult learning systems, many countries and cities have taken measures to address its shortfall and broaden its reach. One of the issues observed was that teachers used to face-to-face delivery may be ill-equipped to provide training online. In the context of the COVID-19 crisis, untrained teachers have been forced to deliver their courses online and faced difficulties such as limited digital literacy and limited training in online teaching methods. To support teachers, many training providers in the United Kingdom are building modules to increase teachers’ confidence, retention and motivation into their online learning strategies. In Korea, the Ministry of Employment and Labour is planning to develop and operate a curriculum to equip teachers and managers at training institutions with the skills needed to shift the training offer to online delivery.

Besides online learning, the education industry is also disrupted by cutting-edge technologies. The implementation of 5G technology, which is 100 times faster than 4G, may further facilitate blended learning and advance educational technology on campus. Increased speed will get students and lecturers closer to a seamless experience when using videoconferencing with remote peers and experts and downloading of instructional videos and other educational materials. This is essential as lecturers tend to increase the amount of video-based content as part of blended learning approaches. 5G will also help power Education technology (Edtech) such as artificial intelligence (AI), augmented reality (AR) and virtual reality (VR), which make learning more engaging and effective, and pick up the pace of VR adoption in higher education. A recent study published in the journal Nature Biotechnology found a 76% increase in learning outcomes when students used a VR simulation and a 101% increase when they used it in combination with traditional teaching179. The use of VR and AR brings hands-on science experiments and interactive simulations to life, and creates dynamic visual experiences that make learning about intangible things more intuitive and interesting. Edtech tools using AI and data analytics can create a powerful personalized learning experience, including the use of adaptive assessment methods to track each student’s progress individually and allow real-time adjustments to help improve and optimize learning180. Since VR and AR experiences are bandwidth-intensive, having better connectivity will make it easier for lecturers to take advantage of these powerful learning tools.

As COVID-19 reshaped the global economy and labour market, the skills profile of jobs is undergoing dramatic change, accelerating the need to upskill and reskill. According to KPMG’s 2020 HR Pulse Survey, “Building talent through upskilling and reskilling” was cited by 40% or more surveyed executives in Mainland China, Hong Kong, and Asia overall as the most important factor for shaping their organization’s future workforce composition. Most respondents in Mainland China estimated that around 11-20% of their organization’s total workforce will need to be upskilled or reskilled in the next two years, with the figure being higher in Hong Kong as executives anticipated such need for up to 30% of their workforce. The World Economic Forum also highlighted that as jobs are transformed by the technologies of the Fourth Industrial Revolution, more than one billion people would need to be re-skilled by 2030. By 2022, 42% of core skills required to perform existing jobs are expected to change.181 A considerable amount of traditional jobs like accountancy, finance, manufacturing and even medical diagnosis could be taken on by self-learning AI. People would still be very much part of the process, but their responsibilities and focus would switch from hands-on to the development, training and oversight of the machines.182
The in-demand skill sets of the future go far beyond digital capabilities. As automation and AI become increasingly prevalent, it has also become more apparent that there are innate human skills that cannot be replaced by machines. Capabilities like intuition, empathy and creativity are becoming ever more valuable differentiators. Analysis carried out by McKinsey anticipated that deployment of social and emotional skills will expand by more than 25% by 2030 as a result.\textsuperscript{183} Automation will not only alter the types of jobs available but also their number and perceived value. By replacing workers doing routine, methodical tasks, machines can amplify the comparative advantage of those workers with problem-solving, leadership, emotional intelligence, empathy and creativity skills.

On the education and training front, Hong Kong is comparatively advantageous because it is the only city in the world with four QS Top 50 universities and five world top 100 universities\textsuperscript{184}, on top of having extensive regional connections with the Greater Bay Area (GBA). To capture the world of opportunities presented by the GBA as well as to seed up Hong Kong’s integration into China, Hong Kong-based education institutions could cooperate with cities in the region on the development of first-class higher education and vocational training institutions, where Hong Kong youths can join Mainland youths in preparing themselves for a career path in the Mainland. It is also necessary to create disciplines that are different from those traditionally offered in Hong Kong universities, with a focus on emerging industries such as biomedicine, digital economy and marine economy. A diversified academic environment should go a long way in preparing students and in-service executives for competition in the Mainland job market.

All in all, online learning could help reach a much bigger number of learners with a smaller investment in education infrastructure, making it a cost-effective solution in the context of rising unemployment due to the COVID-19 crisis. However, for online learning to represent a valuable alternative to face-to-face instruction, it would need to provide high-quality reskilling and upskilling opportunities that can translate into sustainable employment opportunities for job seekers and productivity gains for firms and the economy more broadly. Issues of inclusiveness would also need to be tackled to ensure that all learners can benefit from online learning, including those with lower digital skills and limited access to computer and internet facilities, less self-motivation and those requiring blue-collar training.\textsuperscript{185}

3. POLITICAL FACTOR

A NEW TURNING POINT FOR POLITICAL AND SOCIAL STABILITY IN HONG KONG

Political unrest and social tension ignited by the extradition bill in 2019 continued to influence Hong Kong at the beginning of 2020,\textsuperscript{186} though the protests eased as social-distancing rules were imposed in the city due to the outbreak of COVID-19. Demonstrations took place on a much smaller scale of lunchtime or shopping mall rallies.\textsuperscript{187} Social unrest re-emerged with protests resumed in early May 2020 over the Chinese Government’s plan to impose the National Anthem Ordinance and new National Security Law in Hong Kong.

The National Anthem Ordinance was published in the Gazette and came into effect on 12 June 2020 with its core principle set to promote respect for the national anthem as a symbol and sign of the country. Penalties up to three years in jail or a maximum fine of HK$50,000 will be imposed for any abuse or insult of China’s national anthem.\textsuperscript{188} The Ordinance sparked protests in the city as it was seen as an encroachment by the Chinese Government on Hong Kong’s unique freedoms of speech and expression.\textsuperscript{189}

Swiftly after the enactment of the National Anthem Ordinance, China’s new National Security Law came into effect in Hong Kong on 30 June 2020. The purposes of the Law are to prevent, curb and punish crimes, namely acts of secession, subversion of state power, terrorist activities, and collusion with foreign or external forces to endanger national security.\textsuperscript{190} In view of the emerging threats of Hong Kong’s social and political stability, it is noted that the Law is crucial in ensuring the continuous successful implementation of the “one country, two systems” principle and help maintain an environment that is conducive to business and investment, thereby safeguarding the prosperity and stability of Hong Kong. It is believed that the Law could plug national security loopholes in Hong Kong. The city will be able to focus on developing the economy, improving people’s livelihood and further integrating into national development, thus providing global
investors a safer, more stable and predictable business environment.\textsuperscript{191} The National Security Law is noted by the HKSAR Government as remarkably effective in restoring stability in Hong Kong, as advocacies of “Hong Kong independence” and collusions with external forces have progressively subsided. Street violence is on the decline as well.\textsuperscript{192}

Despite the HKSAR Government officials’ efforts in allaying fear by assuring Hong Kong will be able to continue to enjoy all its rights and freedoms and the new enacted National Security Law would only affect a very small minority of people, the Law aroused discontent and ignited the first large protests in the city for months.\textsuperscript{193} Some fear that the Law may curtail the political freedoms of Hong Kong citizens and the Law could be used as an excuse to investigate, prosecute and punish dissenters of the Chinese Government.\textsuperscript{194} This also raised concern that the Law may undermine the city’s judicial independence and endanger its reputation as a global financial centre.\textsuperscript{195}

On 1 July 2020, the Hong Kong Police Force (HKPF) established the National Security Department.\textsuperscript{196} On 3 July 2020, Luo Huining was appointed as the National Security Adviser to the Committee for Safeguarding National Security.\textsuperscript{197} The HKPF’s National Security Department is responsible for collecting and analysing intelligence and information concerning national security; planning, coordinating and enforcing measures and operations for safeguarding national security; investigating offences endangering national security; conducting counter-interference investigation and national security review; as well as carrying out tasks of safeguarding national security assigned by the Committee for Safeguarding National Security.\textsuperscript{198}

In July 2020, at least 12 members of the Pro-democracy camp, including incumbent Pro-democracy lawmakers, district councillors and activists were disqualified from running in the Legislative Council elections which was originally held in September 2020, then postponed to 2021.\textsuperscript{199} The key reason for the disqualifications was the inability of nominees to uphold, support, promote, and embrace, the Basic Law and pledge allegiance to the HKSAR of the People's Republic of China.\textsuperscript{200}

In response to the new National Security Law, many Western countries suspended their extradition agreements with Hong Kong with the concern of judicial independence in the city after the enactment of the Law, including Australia, Canada, France, Germany, the UK, the US, etc.\textsuperscript{201} The US also decided to rescind Hong Kong’s special trading privileges and imposed sanctions on individuals, including ten Hong Kong and Mainland officials for undermining Hong Kong’s autonomy with the adoption of the new Law. The US further imposed travel bans and other sanctions on 14 high-level Chinese officials over their role in authorizing the HKSAR Government to disqualify four pro-democracy lawmakers from the Legislative Council.\textsuperscript{202}

Correspondingly, Hong Kong suspended extradition and other criminal justice cooperation agreements with Australia, Canada and the UK for their action took against Hong Kong over the imposition of the National Security Law.\textsuperscript{203} Meanwhile, a prominent Scottish judge was appointed to the Hong Kong Court of Final Appeal to work on national security-related legislation to assure public and the world the city’s judicial independence.\textsuperscript{204}

Although Government is committed to continuously strengthening publicity and education to enhance Hong Kong people’s understanding of national security and law-abiding awareness\textsuperscript{205}, it is reckoned that continued effort has to be made to rebuild trust and stability in the city so as to retain talents and sustain a stable business environment in the city.

4. REGIONAL AND GLOBAL FACTORS

LEVERAGING HONG KONG’S UNIQUE EDGE WHILE FURTHER INTEGRATING INTO THE GREATER BAY AREA

The Greater Bay Area (GBA) is a national initiative highlighted in the Chinese Government’s 13th Five Year Plan, aiming to link Hong Kong, Macau, Guangzhou, Shenzhen, Zhuhai, Foshan, Zhongshan, Dongguan, Huizhou, Jiangmen and Zhaoqing into an integrated economic and business hub, and by 2035, build a productivity cluster, serving as a key facilitator of the Belt and Road Initiative.\textsuperscript{206}
The combined GDP of the GBA cities amounted to RMB11.6 trillion in 2019, making up 11% of the country’s GDP. Its annual growth rate between 2014 and 2019 stood at 8.2%, outstripping the 7.7% growth rate of the country as a whole. Guangdong has always ranked top among Chinese provinces in terms of economic output, in 2019, its economic output totalled RMB10.8 trillion. The combined GDP of Guangdong, Hong Kong and Macao topped RMB13.7 trillion, and accounted for 13% of the total economic output of the country (including Hong Kong and Macao). According to projections made by the China Center for International Economic Exchanges, by 2030, the GBA’s economic output is expected to climb to US$4.6 trillion (around RMB32.6 trillion), surpassing that of the Tokyo Bay Area (US$3.2 trillion) and the New York Bay Area (US$2.2 trillion), to make the GBA with the highest economic output in the world.

As the most internationalized city in the GBA, Hong Kong has strived to develop and promote its advantages in international finance, insurance and professional services. With a view to enhancing connectivity with the Mainland’s capital markets, a joint announcement was made on 29 June 2020 by the People’s Bank of China, the Hong Kong Monetary Authority and the Monetary Authority of Macao on the decision to implement the “Wealth Management Connect” in the GBA, under which residents in Hong Kong, Macao and nine cities in Guangdong Province could carry out cross-boundary investment in wealth management products distributed by banks in the area. This will create more business opportunities for the financial industries, and provide more choices for residents therein. It also facilitates the cross-boundary flow and use of RMB, and in turn reinforces Hong Kong’s position as the hub for offshore RMB business as well as the intermediary for capital flowing into and out of the Mainland.

As the next major step in the financial integration of the GBA, authorities in Hong Kong and the Mainland were also hammering out details for the introduction of the second “Insurance Connect” in 2020. The first stage of the scheme would allow Hong Kong insurance companies to provide post-sales services such as handling claims, changing policyholders’ information and processing payment of premiums. Cross-border sales could be realized in early 2021. This scheme is a demonstration of continuity with the Wealth Management Connect to further extend the range of services accessible to an ever-growing middle class willing to protect the fortune accumulated after decades of hard work and high level of savings.

Concerning the integration of the legal sector within the GBA, the amendment to the Shenzhen Special Economic Zone Qianhai Shenzhen-Hong Kong Modern Services Cooperation Zone Regulations, which is a liberalization measure, was passed in August 2020. The amendment allows Hong Kong, Macau, Taiwan and foreign-funded enterprises registered in the Qianhai cooperation zone to choose, by agreement, applicable laws, including Hong Kong laws, when entering into civil and commercial contracts. Another major breakthrough was that Hong Kong solicitors and barristers with accumulated practice experience of five years or above are now eligible to apply for the GBA Legal Professional Examination. Upon passing the examination and obtaining a lawyer’s practice certificate (Greater Bay Area), legal professionals may provide legal services in the nine Mainland municipalities of the bay area on specified civil and commercial matters, including litigation and non-litigation matters, to which the Mainland laws apply, enjoying the same privileges and subject to the same obligations as Mainland lawyers. The first examination would be held on January 30, 2021.

Although Hong Kong has a competitive edge in financial and professional services, there are fears around Hong Kong’s potential marginalization. On 11 October 2020, the Central Government released a new five-year plan for Shenzhen, which identified the city as an “important core engine” powering growth and innovation in the GBA. The plan charting development from 2020 to 2025 grants Shenzhen more autonomy to make decisions on a wide range of local policies, from land use, technology and innovation, the big data economy to hiring foreign professionals. This blueprint also calls for Shenzhen to play a leading role in the GBA and become a global leader in technology and finance. The plan fuelled concern that Hong Kong would be overtaken by its neighbouring city, and that it is no longer viewed as an equal partner, but a city with surplus value in helping Shenzhen’s development.

The Chief Executive dismissed fears over Hong Kong’s marginalization and assured that Government aimed to make Hong Kong develop in sync with Shenzhen and together become the “dual growth engines” for the GBA, connecting China and the world. In particular, Hong Kong
has an indispensable role to play in the GBA, alongside Shenzhen, to attract foreign investment. In the first three quarters of 2019, funding from Hong Kong accounted for about 80% of the total FDIs in Shenzhen.221

Government's ambition in the GBA is shown in the establishment of the Guangdong-Hong Kong-Macao Greater Bay Area Development Office in November 2020. The major duties of the Office include strengthening internal co-ordination within the Hong Kong Government; promoting exchange and co-operation with local stakeholders to gauge their views on the opportunities in the GBA and the associated policy measures; strengthening liaison between the Hong Kong Government, Mainland authorities at the central, provincial and municipal levels and the Macao Government; as well as increasing the understanding of the development of the GBA amongst various sectors of the society and promoting the key opportunities for Hong Kong residents and enterprises brought about by the initiative through strategic publicity efforts.

Initiatives supporting Hong Kong’s participation in the GBA began to take shape in 2020. Concerning the integration of medical services within the GBA, for example, the Chief Executive announced in her 2020 Policy Address that Government will implement the arrangement of using Hong Kong-registered drugs and medical devices used in Hong Kong public hospitals at The University of Hong Kong – Shenzhen Hospital on a trial basis subject to the approval of the Guangdong Province and extend the policy to cover more designated healthcare institutions, drugs and medical devices in a timely manner.222 Government will also allow traditional proprietary Chinese medicine products for external use registered in Hong Kong to be registered and sold in the GBA through a streamlined approval process.223

To support the productivity cluster in GBA, attracting and nurturing human capital is particularly important. On 25 November 2020, the Chief Executive announced several policies to facilitate further business integration between Hong Kong and the Mainland in her 2020 Policy Address, including the new Greater Bay Area Youth Employment Scheme.224 Under the Scheme, businesses with operations in both Hong Kong and the Mainland can apply to Government for salary subsidies to recruit 2,000 Hongkongers who have graduated between 2019 and 2021. Those who have completed bachelors' or post-graduate programmes in Hong Kong will be eligible.225 Of the subsidized job quota, 400 posts are reserved for the innovation and technology sector, with 1600 posts for other sectors.226 Government will subsidize HK$18,000 per month for each job in the innovation and technology sector which pays a minimum monthly salary of HK$26,000, other jobs are required to have a salary of at least HK$18,000, with HK$10,000 being the maximum subsidy.227 The subsidies will be provided for 18 months and HK$430 million for the salary scheme will be taken from the Anti-epidemic Fund.228

Government will also continue to enhance and expand various youth internship and exchange programmes in the Mainland with a view to providing Hong Kong young people deeper, wider and more diversified opportunities to explore GBA as well as other provinces and cities in the Mainland.229 By experiencing local culture and conducting in-depth exchange with local young people, the younger generation of Hong Kong could better understand and seize opportunities for development in GBA, facilitating their integration into the overall advancement of the country.

Policies were also introduced to encourage Hong Kong residents explore job opportunities with public institutions in the GBA. In November 2020, the Guangdong provincial government announced that 26 out of 3,115 new civil service vacancies had been set aside for applicants from Hong Kong and Macau, making it the first time residents from Hong Kong and Macau were allowed to join the civil service in Mainland China as Beijing steps up efforts to further integrate the two special administrative regions into the Greater Bay Area.230

All in all, it is imperative for Hong Kong to make an accurate assessment of the global picture, identify its strengths and weaknesses as well as the challenges and opportunities that will arise in the future. The city must try to integrate with the Mainland to open up new frontiers, create opportunities in all sectors and advance the region’s economic development. On the premise of “one country, two systems” and the principle of reciprocity and mutual benefits, Hong Kong should continue to consolidate and enhance its role in order to contribute to the long-term development of Hong Kong, the bay area as well as the whole country.
**HONG KONG CAUGHT IN THE CROSSFIRE OF THE SINO-US TRADE CONFLICT**

The US-China trade war started on 6 July 2018, when the US imposed a 25% tariff on US$34 billion of Chinese imports. It continued to escalate, with the US and China imposing a series of import tariffs on each other’s products. The tariffs slapped on hundreds of billions of dollars’ worth of trade — rupturing supply chains, shaking markets, increasing consumer costs and contributing to a global growth slowdown.

After 18 months of trade tensions, the US and China moved a step forward to sign the Phase One trade deal on 15 January 2020. The deal put into immediate effect the tariff rollbacks, expansion of trade purchases, and renewed commitments on intellectual property rights, technology transfer, and currency practices. China had committed to purchase US$200 billion worth of US goods and services over a period of two years. Corresponding to the US’s commitment to slash tariffs on Chinese goods, China’s Finance Ministry announced that additional tariffs levied on US$75 billion of goods would be cut to 5% from 10% and others lowered to 2.5% from 5% starting from 14 February 2020. China also granted exemptions on retaliatory duties imposed against 696 types of US goods, which were the most substantial tariff relief offered so far.

Economic tension between the two countries was escalated again when US President Donald Trump published Executive Orders targeting the Chinese-owned apps TikTok and WeChat on 6 August 2020, prohibiting these apps from processing transactions for US citizens and from being downloaded in US app stores from 20 September onwards due to security concerns. Trump released another Executive Order stating that TikTok would face a complete ban if it did not sell to a US company by 14 November. Lawyers for the Trump Administration said it was in the interest of national security to ban TikTok due to links between ByteDance, the app’s parent company, and the Chinese government. Trump cited similar concerns for a WeChat ban, saying that the app allows the Chinese Communist party access to Americans’ personal and proprietary information.

Although the ban was later halted by legal setbacks, it evidenced the growing momentum toward the decoupling of the technology industries. Such decoupling will ultimately lead to slower global growth in the long run, according to Shaun Roache, Asia-Pacific chief economist at S&P Global Ratings.

To counter the US’ moves against Chinese tech firms, China announced the launch of its own initiative to set global standards on data security. This came as a response to the US’s Clean Network programme, a government effort launched in April 2020 and expanded in August 2020 to keep Chinese companies out of critical segments of the global internet. The programme drew on earlier joint statements of 5G network security principles such as the Prague Proposals and the EU 5G security “toolbox”, in which several countries and more than 30 large telecoms signaled support for the pledge to keep networks free from ties to untrusted vendors.

The tension between the two economies was not only felt by the tech sector, but also the manufacturing sector. The Trump Administration has imposed sanctions and import restrictions on cotton and cotton products from China’s Xinjiang Production and Construction Corps (XPCC), as a way to increase pressure over the mass detention of Uyghurs. In December 2020, US Customs and Border Protection issued a Withhold Release Order on “all cotton and cotton products produced by the XPCC and its subordinate and affiliated entities as well as any products that are made in whole or in part with or derived from that cotton, such as apparel, garments, and textiles.” China is the world’s second largest cotton producer, with 85% of the output originating from the autonomous region alone in 2019, according to US Department of Agriculture and Rural Affairs. These actions could have a sweeping effect on companies globally involved in selling textiles and apparel to the US, forcing apparel firms and other companies shipping cotton products to the US to eliminate XPCC-produced cotton fiber from many stages of their supply chains.

Meanwhile, Hong Kong has also become the new battleground of the trade war. On 14 July 2020, Trump took swift actions after Beijing’s imposition of the new National Security Law on Hong Kong, namely signing the Hong Kong Autonomy Act (HKAA) to impose sanctions on foreign individuals and entities for contributing to the erosion of Hong Kong’s autonomy and signing an Executive Order to end the special status given to the former British colony under US law. According to the HKAA, the US government will impose sanctions on any foreign person who engaged in actions or policies that threatens Hong Kong’s autonomy, such as limitations on freedom of expression and independent media, human rights abuse and undermining democratic
processes or institutions. This could be damaging to Chinese banks and the Hong Kong financial sector if strictly enforced. Although the Hong Kong Monetary Authority stated that unilateral sanctions imposed by foreign governments are not part of the international targeted financial sanctions regime and have no legal status in Hong Kong, they urged banks to carefully assess all risks involved and endeavor to treat customers fairly. For Chinese financial institutes, large Chinese banks are expected to sacrifice individual customers if they are sanctioned under the HKAA, while small local banks with limited exposure to the US financial system or the US dollar may not strictly follow HKAA sanctions. The most significant threat to Chinese financial institutes will be their loss of access to loans, Dollar transactions, and banking transfer and payment services by US banks.

Another action taken by Trump is the signing of an Executive Order to end the special status given to Hong Kong under US law, which could expose Hong Kong-origin exports to higher US tariffs as applied to Mainland China. In 2019, the US and Hong Kong had US$61 billion worth of trade in goods and services. While Hong Kong itself has a small manufacturing base, many Chinese-origin goods are exported to the US and other markets via Hong Kong. If tariffs were to be imposed, Hong Kong’s trade with the US would suffer a significant impact. Also, license exceptions with sensitive exports to Hong Kong will be revoked. This may hinder US exports of defense equipment, dual-use technologies, and high-technology products to Hong Kong.

In August 2020, the US Customs and Border Protection issued a notice stating that goods produced in Hong Kong, which were entered or withdrawn from warehouse for consumption into the US after September 25, 2020, must be marked to indicate that their origin is China. In response, Hong Kong formally launched legal procedures at the World Trade Organization’s dispute-settlement against the US requirement for city-produced exports to be labelled “Made in China”. While Hong Kong's manufacturing industry may not be as vibrant as it was a few decades ago, switching to the “Made in China” label could hit certain sectors, such as the medical supplies and food industries where Hong Kong has established a reputation in product quality and safety.

As a re-export hub, Hong Kong has been massively impacted since the start of the US-China trade war. Recent questions over Hong Kong's autonomy raised by the US has fueled more tension between the world's two largest economies, with Hong Kong being caught in the crossfire. The Census and Statistics Department revealed in September 2020 that Hong Kong exports to the US had dropped 1.4% in unit price and 18% in volume over the first seven months of 2020, compared to the same period a year ago. The decline in volume was the heaviest among all the city’s export markets. Although part of the decline in volume could be attributed to COVID-19, the tension is certainly one of the biggest concerns among Hong Kong traders. As Beijing has vowed to retaliate, it is expected that Hong Kong would be dragged deeper into the escalating tensions between Washington and the Central Government.

Further to Joe Biden’s winning of the US presidential election, Chinese-American trade lawyer Katherine Tai, the incoming President-Elect's choice for US Trade Representative, encapsulates the ways in which the US’s trade strategies, and its approach to China in particular, will differ from those of the Trump administration. Biden has said the Trump tariffs on China's exports will remain, at least initially, but Tai is expected to try to create a partnership of western economies and to use the World Trade Organisation (WTO) to try to change the way China does business with the rest of the world. Tai, who reportedly described the Trump Administration’s trade policy with China as “too defensive”, has a record of successful prosecutions of Chinese trade practices at the WTO, most noticeably on China’s exports of rare earths in 2012, and a history of being able to organize the US's allies in support of those actions.

Meanwhile, the Regional Comprehensive Economic Partnership (RCEP), the world’s largest free-trade agreement (FTA), was signed on 15 November 2020. RCEP brings together Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam, Australia, China, Japan, New Zealand and South Korea, which comprise some 2.2 billion people and 30% of the world’s economic output. This might represent an alternative way-out for Hong Kong and China’s export sector to further leverage and focus on trading with neighbouring economies in the region, as it will likely accelerate economic integration across the Asia-Pacific region while making it more difficult for the US to re-engage in the region. The Trump Administration had, as commented by the US Chamber of Commerce in a statement concerning the RCEP, “departed the Trans-Pacific Partnership agreement in early 2017 and has not concluded any
comprehensive new trade deals in Asia since that time”, after highlighting that “The Asia-Pacific is forecast by the IMF to regain an average growth rate over five percent in 2021. According to the Organisation for Economic Co-operation and Development, Asia will represent 66% of the global middle-class population by 2030, doubling its share in 20 years. US exporters, workers, and farmers need access to these lucrative markets if they are to share in this dramatic growth.”

In December 2020, the European Union (EU) and China finally concluded in principle the negotiations for a Comprehensive Agreement on Investment (CAI) after seven years and 35 rounds of negotiations. Once signed and ratified by both parties, the CAI will replace 26 existing investment treaties between China and 27 EU member states, providing a more unified and standardized framework for bilateral investments between the two sides. In addition, China and the EU set themselves a two-year deadline for the conclusion of negotiations on an additional investment protection agreement.

As uncertainties over Sino-US trade tension remains, Hong Kong’s business community should seize opportunities in the neighbouring Asia-Pacific region to mitigate their risks and capture the anticipated growth potential. The business community should also watch out for potential increase in their costs, and also explore alternative new manufacturing bases and innovative supply chain management solutions in order to safeguard their operations from changes in US policy.

---

1 “Industries Thriving During The Pandemic”, Forbes, Web, 18 Dec 2020
3 “Coronavirus: A visual guide to the economic impact”, BBC, Web, 29 Jun 2020
6 “9 Industries Likely to Thrive as A Result of Covid-19”, Business Australia, Web, 8 Jan 2021
7 “ECB: Eurozone economy set for slower COVID recovery”, Yahoo UK, Web, 10 Dec 2020
8 “Euro area unemployment at 8.4%”, European Commission, Web, 2 Dec 2020
10 “German economy sinks, but skirts worst of virus fallout”, Reuters, Web, 15 May 2020
11 “German government raises 2020 GDP forecast to -5.5% - source”, Reuters, Web, 26 Oct 2020.
13 “How a third lockdown will impact the UK economy”, Yahoo Finance UK, Web, 5 Jan 2021
14 “Brexit: What are the key points of the deal?”, BBC, Web, 30 December 2020
15 “The Brexit deal leaves the future uncertain for financial services — here's what is at stake”, CNBC, Web, 5 Jan 2021
16 “US economy grew a record 33.1% annual rate last quarter but the pandemic remains an enormous threat”, CNN, Web, 29 Oct 2020
17 “US unemployment rate falls to 7.9% in last look at jobs market before elections”, Guardian, Web, 2 Nov 2020
18 “US layoffs remain elevated as 803,000 seek jobless aid”, The Associated Press, Web, 24 Dec 2020
20 “China's Q3 GDP grows 4.9%, economic recovery picks up pace”, CCTV, Web, 19 Oct 2020
21 “China’s manufacturing sector expands for sixth straight month as pandemic fallout fades, private survey shows”, CNBC, Web, 1 Nov 2020
22 “China’s manufacturing sector expands for sixth straight month as pandemic fallout fades, private survey shows”, Nikkei Asia, Web, 13 Oct 2020
23 “World Bank: China's economy recovered faster than expected but risks remain”, CGTN, Web, 23 Dec 2020
24 “Covid-19: Why Hong Kong's ‘third wave’ is a warning”, BBC, Web, 30 Jul 2020
25 “Hong Kong jobless rate edges down to 6.3 per cent, but pressure on labour market likely to increase amid fourth wave, official warns”, SCMP, Web, 17 Dec 2020
27 “Mass layoff fears as firms shun employment subsidy”, The Standard, Web, 9 Nov 2020
28 “Hong Kong Covid-19 fourth wave: about 70 per cent of restaurants face closure amid tough social-distancing measures, poll reveals”, South China Morning Post, Web, 29 Dec 2020
29 “Hong Kong fourth wave: government reverses course and unveils another round of aid worth HK$6.4 billion for hard-hit businesses”, South China Morning Post, Web, 29 Dec 2020
30 “Hong Kong’s finance chief forecasts economic recovery next year, but admits it all depends on Covid-19 vaccine and US-China relations”, South China Morning Post, Web, 7 Dec 2020.
31 Census and Statistics Department, “The Four Key Industries and Other Selected Industries”, Census and Statistics Department, Web, 5 January 2021
Ant Group IPO may be delayed by six months", The National, Web, 6 Nov 2020
36 “Bond Connect – a Brief Review and the Journey Ahead”, Hong Kong Monetary Authority, Web, 28 Sep 2020
39 “Hong Kong: Proposed Tax Concession For Carried Interest Issued By Private Equity Fund In Hong Kong”, ONC Lawyers, Web, 30 Oct 2020.
45 “Eight virtual banks transforming Hong Kong’s fintech sectors”, Fintech Magazine, Web, 31 Mar 2020
46 “Financial Inclusion”, Hong Kong Monetary Authority, Web, 13 Feb 2020
48 “HKEX Launches STAGE, its Sustainable and Green Exchange”, Hong Kong Exchanges and Clearing Limited, Web, 1 Dec 2020
51 “Provisional statistics of restaurant receipts and purchases for third quarter of 2020”, Census and Statistics Department, Web, 4 Nov 2020
52 “Provisional statistics of restaurant receipts and purchases for third quarter of 2020”, Census and Statistics Department, Web, 4 Nov 2020
54 “Hong Kong Monthly Digest of Statistics November 2020”, Census and Statistics Department, Web, 8 Dec 2020
57 “香港零售管理協會致全港商舖業主的公開信”(Chinese version only), Hong Kong Retail Management Association, Web, 28 Jul 2020
58 “E-News Letter November 2020: Gloomy Forecast for Christmas Sales despite Drop in Retail Sales Narrowed to 12.9% in September”, Hong Kong Retail Management Association, Web, 8 Dec 2020
60 “2020年10間連鎖店全線結業 , 香港將成快消品消費中心”, U Lifestyle, Web, 25 Dec 2020
63 “Subsidy Schemes under Anti-Epidemic Fund”, Food and Environmental Hygiene Department, Web, 2 Nov 2020
64 “Application for Anti-epidemic Fund - Catering Business (Social Distancing) Subsidy Scheme”, Food and Environmental Hygiene Department, Web, 20 Oct 2020
65 “Application period for Catering Business Subsidy Scheme to end next Thursday”, The Government of HK SAR, Web, 6 Nov 2020
67 “Provisional statistics of restaurant receipts and purchases for third quarter of 2020”, Census and Statistics Department, Web, 4 Nov 2020
69 “Pandemic Meat Crisis Pushes Consumers Towards Plant-Based Alternatives From HK To US”, Green Queen, Web, 12 Jul 2020
71 “Online-to-offline model gains ground in Hong Kong”, Hong Kong Business, Web, 5 Jul 2020
72 “Government launches enhancement measures for Technology Voucher Programme”, The Government of HK SAR, Web, 1 Apr 2020
73 “Distance Business Programme”, Hong Kong Productivity Council, Web, 8 Jan 2021
74 “38k funding applications received”, The Government of HK SAR, Web, 2 Nov 2020
77 “Hong Kong Monthly Digest of Statistics”, Census and Statistics Department, Web, Nov 2020
78 “Hong Kong Monthly Digest of Statistics”, Census and Statistics Department, Web, Nov 2020
80 “Hong Kong Disneyland reopens amid uncertainty over expansion plans”, Nikkei Asia Review, Web, 26 Sep 2020
82 "HKTB jointly launches a standardised hygiene protocol with HKQAA for tourism-related sectors”, 1,800+ businesses interested in following it to establish a safe, healthy tourism image for Hong Kong”, Hong Kong Tourism Board, Web, 24 Apr 2020
83 “HKTB launches “360 Hong Kong Moments” globally. Getting Hong Kong Ready for Tourism Recovery”, Hong Kong Tourism Board, Web, 19 Oct 2020
84 “HKTB to Implement a Standardised Hygiene Protocol in Tourism Industry”, The Government of HKSAR, Web, 3 Dec 2020
85 "LCQ7: Measures for supporting tourism industry”, The Government of HKSAR, Web, 2 Dec 2020
86 "HK Tourism Board’s “Holiday at Home” Campaign Has Landed Hongkongers Encouraged to Be a Tourist and Rediscover Hong Kong’s Beauty” Hong Kong Tourism Board, Web, 15 Jun 2020
87 “Travel Industry Council, Web, 2 Nov 2020
88 "LCQ7: Measures for supporting tourism industry”, The Government of HKSAR, Web, 2 Dec 2020
89 "HKTB welcomes Government’s exemption arrangement for local tours and launches “Free Tour” programme”, Hong Kong Tourism Board, Web, 20 Oct 2020
90 "HKTB announces new tourism arrangement for local tours and launches “Free Tour” programme”, Hong Kong Tourism Board, Web, 23 Oct 2020
91 "HKTB launches “360 Hong Kong Moments” globally. Getting Hong Kong Ready for Tourism Recovery”, Hong Kong Tourism Board, Web, 24 Apr 2020
92 "Designated flights under HK-Singapore Air Travel Bubble to launch November 22”, The Government of HKSAR, Web, 2 Nov 2020
93 “The HKTB launches “360 Hong Kong Moments” globally. Getting Hong Kong Ready for Tourism Recovery”, Hong Kong Tourism Board, Web, 19 Oct 2020
94 “HKTB announces new tourism arrangement for local tours and launches “Free Tour” programme”, Hong Kong Tourism Board, Web, 23 Oct 2020
95 "HKTB jointly launches a standardised hygiene protocol with HKQAA for tourism-related sectors”, 1,800+ businesses interested in following it to establish a safe, healthy tourism image for Hong Kong”, Hong Kong Tourism Board, Web, 8 Oct 2020
100 "5 lessons from Hong Kong’s tourism and hospitality recovery plan”, Study International, Web, 12 Oct 2020
101 "5G technology”, The Legislative Council Commission, Web, 14 Apr 2020
102 "Three Hong Kong operators kick off 5G services”, RCR Wireless News, Web, 2 Apr 2020
103 "About”, GSM Association, Web, 8 Jan 2021
106 "81 applications for 5G subsidy”, The Government of HKSAR, Web, 14 Jun 2020
107 "5G Applications”, Communication Authority, Web, 8 Jan 2021
108 "4G networks led to a boom for smartphones; 5G is set to do the same for smart cities”, Ernest & Young, Web, 4 Apr 2018
109 "5G: Reshaping the Industries”, Deloitte Touche Tohmatsu, Web, Sep 2018
110 “How ASTRI and Hong Kong are changing the world with open 5G technology”, Hong Kong Applied Science and Technology Research Institute, Web, 8 Jan 2021
111 “How Hong Kong’s smart mobility ambitions will be boosted by 5G roll-out”, South China Morning Post, Web, 8 Jun 2020
112 “HKPC Takes Lead to Facilitate 5G Application in Manufacturing”, Hong Kong Productivity Council, Web, 8 Jun 2020
113 “What is Smart City?”, Development Bureau, Web, 8 Jan 2021
114 “Updated background brief on smart city development”, Legislative Council, Web, 8 Jun 2020
117 “Vision & Mission”, Innovation and Technology Bureau, Web, Dec 2020
118 “Hong Kong’s new iAM Smart app set to launch, allowing residents access to 20 public services including coronavirus jabs and test results”, South China Morning Post, Web, 29 Dec 2020
119 “Incubation”, Hong Kong Science & Technology Parks, Web, 8 Jan 2021
120 “Government releases Smart City Blueprint for Hong Kong 2.0”, The Government of HKSAR, Web, 10 Dec 2020
121 “Hong Kong: The Facts – Innovation and Technology”, Innovation and Technology Bureau, Web, Jun 2020
122 “HKCSS’s Feedback to the 2020 Budget”, Hong Kong Computer Society, Web, 26 Feb 2020
123 “Hong Kong: The Facts – Innovation and Technology”, Innovation and Technology Bureau, Web, Jun 2020
124 “Technology infrastructure, access to qualified talent and R&D spend are key to Hong Kong’s development as a smart city, finds KPMG survey”, KPMG, Web, 29 Apr 2020
14/F Fairmont House, 8 Cotton Tree Drive, Central, Hong Kong
Telephone: 2526 6516
Fax: 2868 4387
Web Site: www.hkma.org.hk