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Discussion Paper

LEGISLATIVE COUNCIL
PANEL ON FINANCIAL AFFAIRS

Development of Financial Technologies

INTRODUCTION

This paper provides an update on the latest development of financial technologies (“Fintech”) in Hong Kong and the measures to facilitate Fintech development.

LATEST DEVELOPMENT OF FINTECH IN HONG KONG

2. Hong Kong’s Fintech sector continues to be vibrant. According to InvestHK’s study, there are over 550 Fintech companies in Hong Kong, covering mobile payment, artificial intelligence (“AI”), robo-advisor, wealth management, blockchain, etc. World-renowned innovation laboratories and accelerator programmes, including Accenture Fintech Innovation Lab, Deloitte Asia Pacific Blockchain Lab, The Floor from Israel and Nordic Innovation House from the Nordics, have acknowledged Hong Kong’s advantages in developing Fintech and decided to establish their presence here. According to analysis by Accenture, accumulated investment in Hong Kong-based Fintech companies over the past five years (2014-2018) reached US\$1.1 billion, higher than US\$0.69 billion raised by Singapore-based Fintech companies.

3. Financial services sectors are actively making use of Fintech, thereby enhancing the competitiveness of the financial services industry in Hong Kong as a whole, and providing more and better financial services to the public. Since our last update on Fintech development for the Panel last April, a number of major Fintech initiatives have been rolled out in the past year, including -

- **Banking industry** : virtual bank licenses being processed; Open Application Programming Interface (“API”) framework published; “eTradeConnect” launched;

- **Insurance industry** : first virtual insurer authorised; Insurance Fraud Prevention Claims Database (“IFPCD”) and Motor Insurance DLT-based Authentication System (“MIDAS”) developed;
- **E-payment** : Faster Payment System (“FPS”) and the Common QR Code Standard for Retail Payments rolled out; e-wallet operators extended the use of their Hong Kong e-wallets for retail payments in the Mainland;
- **Securities industry** : new regulatory approach for virtual assets announced; and
- **Other measures** : Talent List of Hong Kong and Technology Talent Admission Scheme (“TechTAS”) promulgated; participated in Global Financial Innovation Network (“GFIN”); and Easy Landing Scheme and Overseas/Mainland Market Development Support Scheme (“MDSS”) launched.

The ensuing paragraphs will elaborate on the above initiatives in greater detail and other measures to facilitate Fintech development.

MEASURES TO FACILITATE FINTECH DEVELOPMENT

4. We have been adopting a five-pronged approach in facilitating Fintech development, namely (a) promotion; (b) regulation; (c) facilitation; (d) talents; and (e) funding.

(a) Promotion

InvestHK’s Dedicated Fintech Team

5. InvestHK’s dedicated Fintech team attracts and assists Fintech companies, start-up entrepreneurs, investors and incubators to establish their presence in Hong Kong. The team has rendered assistance to over 480 Fintech companies since its establishment in September 2016. Last year, InvestHK organised a number of Hong Kong Fintech seminars in the Mainland and overseas, including London, Amsterdam, San Francisco, New York, Beijing, Shanghai, Hangzhou and Shenzhen. InvestHK also participated in overseas Fintech events, including Money 20/20, Paris Fintech Forum, Innovate Finance Global Summit and Consensus 2018, to assist Fintech companies with potential in major Fintech hubs to expand their business in Hong Kong and showcase the latest development and advantages of Fintech in Hong Kong.

6. InvestHK also supported and participated in a series of local Fintech events. Amongst these events was the annual flagship, Hong Kong Fintech Week (“HKFTW”) 2018, which drew more than 8 000 attendees from over 50 economies, more than 260 speakers, 160 exhibitors and start-ups, and more than 1 000 business matching. HKFTW 2018 was also the first cross-boundary Fintech event with a Shenzhen Day, where Fintech communities from overseas, the Mainland and Hong Kong were brought together for business exchanges. InvestHK also supported events organised by industry players, such as “Hong Kong Blockchain Week” and “Finovate Asia”, bringing the diverse and vibrant Fintech community together to drive Fintech development.

Collaboration with the Mainland and Overseas

7. Our financial regulators continue to pursue Fintech collaboration with their overseas counterparts. Last year, Hong Kong entered into Fintech co-operation agreements with Switzerland, Poland, Abu Dhabi, Gibraltar, etc. In January this year, the Hong Kong Monetary Authority (“HKMA”) held a high-level Fintech Roundtable attended by senior representatives from six international organisations and around 30 central banks or regulatory authorities in 18 jurisdictions (including the United Kingdom, the United States, Japan and Singapore). The Roundtable aimed to strengthen cross-border Fintech collaboration among jurisdictions. In addition, GFIN¹, formed by HKMA, the Securities and Futures Commission (“SFC”) and 27 international organisations, was formally established in January 2019 and launched a pilot for firms wishing to test innovative financial products, services or business models across more than one jurisdiction. HKMA is processing about 20 applications.

(b) Regulation

Virtual Bank

8. HKMA received around 30 applications following the publication of a revised Guideline on Authorisation of Virtual Banks. HKMA has shortlisted eight applications for final due diligence check and is striving to start issuing virtual bank licences by the end of March this year.

¹ GFIN is a network of financial regulators and related organisations, which seeks to provide a more efficient way for innovative firms to interact with regulators. This includes a pilot for firms wishing to test innovative financial products, services or business models across more than one jurisdiction. It also aims to create a framework for co-operation between financial services regulators on innovation related topics, sharing different experiences and approaches.

Open API

9. HKMA published the Open API Framework in July last year. The Framework adopts a risk-based principle and a four-phased approach to implement various Open API functions. The first phase was launched in January this year as scheduled. Twenty retail banks launched over 500 Open APIs, covering information of deposits, loans, insurance, investments and other banking products and services, to address various financial needs of customers.

Know-your-customer (“KYC”)

10. HKMA has been working closely with the Hong Kong Association of Banks (“HKAB”) to explore how the know-your-customer utility (“KYCU”) could potentially be used to enhance efficiency of customer (mainly small and medium enterprises and corporates) due diligence processes and customer experience. With the support from HKMA, HKAB has earlier gathered market interests and proposals on potential solutions available and the review is now in progress. When designing the electronic identity (“eID”) system, Innovation and Technology Bureau and the Office of the Government Chief Information Officer have also provided flexibility for supporting future services to be provided by public and private organisations, including facilitating financial institutions to perform KYC procedure.

Stored Value Facilities (“SVF”) (e.g. e-wallets)

11. The SVF industry registered continuing growth. At the end of 2018, the total number of SVF accounts in use was 56.1 million, representing a 20.1% increase from end 2017. SVF operators are actively expanding their service and customer reach to different sectors such as public transport, wet markets and small merchants, providing more choices and convenience in making payments. Recently some e-wallet operators have extended the use of their Hong Kong e-wallets for retail payments in the Mainland.

New regulatory approach for virtual assets

12. In light of the development of virtual assets in the market and the risks involved, we launched a public education campaign on the risks associated with initial coin offerings (“ICOs”) and “cryptocurrencies” last year, providing the public with a more accurate and comprehensive understanding of the potential risks of participating in ICOs and “cryptocurrency” transactions. On the regulatory front, SFC set out a conceptual framework for the potential regulation of virtual asset trading platforms in November last year, with a view to exploring

whether virtual asset trading platforms were suitable for regulation. This regulatory approach, if implemented, could provide a path for compliance for those platform operators capable and willing to adhere to a high level of standards and practices. In addition, SFC also issued guidance on the regulatory standards expected of virtual asset portfolio managers and fund distributors.

Fast Track and the Insurtech Facilitation Team

13. The Insurance Authority (“IA”)’s Fast Track offers a dedicated channel for new authorisation applications from insurers using solely digital distribution channels (i.e. without the involvement of intermediaries) to provide insurance products with a simple structure and high protection element. The Fast Track would expedite the authorisation process while maintaining all prudential regulatory requirements. In December last year, IA granted the first authorisation of a virtual insurer under the Fast Track. IA will continue to process other applications under the Fast Track.

14. In addition, the Insurtech Facilitation Team established by IA helps insurers, technology companies and start-ups to gain better understanding of the current regulatory landscape and provides a platform for the exchange of ideas related to Insurtech initiatives. The team has handled more than 150 enquiries so far and held about 70 meetings with various stakeholders. Separately, the “Embracing Fintech in Hong Kong” working group has been set up under the “Future Task Force²” of the insurance industry to promote the application of Fintech in the insurance industry. The working group comprises representatives from the insurance industry and other stakeholders. The working group meets regularly and acts as a platform for exchanging ideas of innovative Insurtech initiatives among key stakeholders.

Sandboxes and Regtech

15. Financial regulators’ sandboxes provide a platform for the industry to conduct pilot trials of Fintech initiatives, expediting the launch of new technology products and reducing the development cost. Since its launch in September 2016 until end February 2019, 46 new technology products have been tested in HKMA’s Fintech Supervisory Sandbox (“FSS”). Out of these cases, 32

² “Future Task Force” of the Insurance Industry (“FTF”) was set up by IA to build and sustain a regulatory environment conducive to business development and embrace technology, and to work hand in hand with IA in exploring the future of the insurance industry. FTF is headed by Chairman of IA and comprises experts and professionals from the insurance industry and the academia.

pilot trials have been completed, and the products have subsequently been rolled out. SFC has granted two companies with licences to operate in SFC's Regulatory Sandbox. Since the launch of Insurtech Sandbox until end February 2019, IA received eight sandbox applications and two were completed and rolled out to the market.

16. Our financial regulators are also using technology to enhance regulatory effectiveness and efficiency. In the banking sector, HKMA has expanded the scope of "Banking Made Easy Initiative"³ to facilitate the adoption of Regtech and the development of the Regtech ecosystem in Hong Kong, which aims to enhance the effectiveness and efficiency of banks' internal risk management and compliance efforts. Focus areas include anti-money laundering and counter-financing of terrorism surveillance technologies, Regtech for prudential risk management and compliance, and machine-readable regulations. HKMA is also studying the collection of more detailed regulatory data and further use of technology to enhance regulatory processes, and hopes to formulate a strategy for step-by-step implementation. To help build up the Regtech ecosystem, the FSS is now open to Regtech projects and ideas raised by banks or technology firms. In the past few months, HKMA received over 40 meeting requests, and six Regtech projects have been tested in the FSS.

17. In the securities industry, SFC has established an interdepartmental unit for analysing market intelligence. The unit would deploy scientific techniques to analyse both internal and external market data to enhance regulatory efficiency. In addition, SFC has analysed transaction data from restructuring and investigating licensed corporations on a trial basis and is able to identify regulatory misconduct and non-compliance situations. In light of the encouraging results, SFC is now formulating the data standard and format for licensed corporations with high transaction volume to submit to SFC on demand.

(c) Facilitation

Cyberport

18. The Fintech ecosystem built by Cyberport comprises over 300 Fintech companies, making it the largest Fintech community in Hong Kong. Over the years, Cyberport has launched various programmes to support Fintech start-ups, nurture talents and provide matching service for financial institutions

³ A Banking Made Easy Task Force was set up by HKMA to work with the banking industry to minimise regulatory frictions that may hinder technological innovations and customer experience in using digital banking services.

and start-ups. As at end February 2019, 94 Fintech start-ups have participated in the Cyberport Incubation Programme. The Cyberport University Partnership Programme has sponsored more than 210 university students to attend entrepreneurship boot camps organised by renowned universities in the United States. Last year, Cyberport launched an Easy Landing Scheme and MDSS. The Easy Landing Scheme further enhances Cyberport's Fintech ecosystem by attracting multi-national corporations, such as overseas and Mainland leading Internet enterprises and Fintech companies, to set up offices and research and development ("R&D") units in Cyberport through the provision of rental concessions. MDSS provides a financial subsidy of up to \$200,000 to incubatees and alumni of the Cyberport programmes in conducting market research and promotion, as well as participating in trade fairs outside Hong Kong with a view to assisting start-ups in expanding into new markets and attracting investors.

FPS and the Common QR Code Standard

19. FPS was launched in September last year. FPS operates on a round-the-clock basis and connects banks and SVF operators on the same platform. The public can use internet banking, mobile banking or e-wallets to make real-time fund transfer between banks and SVFs with the use of recipient's mobile number or email address as an account proxy. With just a few months after its launch, FPS has recorded over 2.5 million registrations. As at end February 2019, FPS has processed over 8.7 million transactions involving an aggregate amount of HK\$180 billion. FPS has an average daily turnover of around 60 000 transactions worth HK\$1.2 billion. The Government is planning for the use of FPS to provide the public with greater convenience in paying taxes, rates and water charges. The Transport Department, the Immigration Department and the Leisure and Cultural Services Department will examine the feasibility of accepting payments through the FPS at their shroff counters on a pilot basis.

20. HKMA also announced the Common QR Code Standard for Retail Payments in Hong Kong together with the launch of an associated mobile application tool for converting multiple QR codes from different payment service providers into a single, combined QR code. This would facilitate merchants in using a single QR code to accept different payment schemes, thereby promote the adoption of QR code payments in Hong Kong.

eTradeConnect

21. The trade finance platform, eTradeConnect, was launched in October last year. eTradeConnect is the first large-scale multi-bank blockchain

project in Hong Kong by a consortium of twelve member banks. eTradeConnect aims to improve overall trade efficiency, reduce risks and fraud by digitising trade documents and automating trade finance processes. A Memorandum of Understanding has been signed between the operator of eTradeConnect and a European trade finance platform to conduct a Proof-of-Concept on connecting the two platforms. HKMA has been proactively looking for opportunities to connect eTradeConnect with trade platforms in other regions. The operator of eTradeConnect is improving the functionalities of the platform based on the feedbacks collected from banks and other users.

IFPCD and MIDAS

22. Hong Kong insurance sector launched two Insurtech projects in December last year, namely IFPCD and MIDAS. IFPCD uses big data and AI technology to help detect patterns of fraudulent insurance claims, especially those involving multiple claims and syndicates. MIDAS makes use of blockchain to examine the validity of motor insurance policies with ease, which will help address cases of insurance scams.

(d) Talents

Nurturing local talents

23. Six local universities have rolled out Bachelor's or Master's degree programmes related to Fintech. The Study Subsidy Scheme for Designated Professionals/Sectors also covers self-financing Fintech-related undergraduate programmes starting from the 2018/19 academic year. In addition, HKMA launched the upgraded version of the Fintech Career Accelerator Scheme ("FCAS") as FCAS 2.0 in 2018, offering four internship programmes.

24. The University of Hong Kong, together with Cyberport and other industry players, launched Asia's first Fintech Massive Open Online Course in 2018 in which practitioners of the financial services industry can enroll. The Government and the industry have also offered various training programmes to enhance the digital literacy of practitioners of the financial services industry. For example, under the Pilot Programme to Enhance Talent Training for Asset and Wealth Management Sector, industry associations can make use of the Financial Incentive Scheme for Professional Training to enhance wider adoption of innovative technology among practitioners.

Attracting overseas talents

25. In August last year, the Government promulgated the first Talent List of Hong Kong, which covered, amongst others, “experienced professionals in Fintech”, “experienced data scientists”, “experienced cyber security specialists” and “innovation and technology experts”. Immigration facilitation is provided to eligible persons under the Talent List through the Quality Migrant Admission Scheme. The Government also rolled out TechTAS to provide a fast-track arrangement for the admission of overseas and Mainland R&D talent to undertake R&D work in Hong Kong. As a start, TechTAS will be open to tenants and incubatees of the Hong Kong Science and Technology Parks Corporation and Cyberport that are engaged in Fintech or other specific technology areas.

(e) Funding

26. Fintech companies are supported by various funding schemes. The Innovation and Technology Fund (“ITF”) administered by the Innovation and Technology Commission (“ITC”) has funding programmes that assist local companies, including those in the financial services sector, to upgrade their technological level. The Enterprise Support Scheme (“ESS”) under the ITF supports companies in Hong Kong for their in-house R&D on a dollar-for-dollar matching basis. As at end February 2019, six Fintech-related projects under ESS had obtained funding / were endorsed by the assessment panel, with total funding support amounting to \$25 million.

27. Separately, the Technology Voucher Programme subsidises local companies on a 2:1 matching basis in using technological services and solutions to improve productivity, or upgrade or transform their business processes. Funding up to \$400,000 can be provided for each company. As at end February 2019, 29 applications from companies in the financial services sector were approved with total grants amounting to \$4.46 million and the average funding amount for each project was about \$150,000.

28. In 2017, ITC established a \$2 billion Innovation and Technology Venture Fund (“ITVF”) to co-invest with partner venture capital funds in local I&T start-ups at an overall matching investment ratio of approximately 1 to 2. ITC is considering investment proposals from co-investment partners, some of which have Fintech elements.

29. Cyberport also has various programmes and initiatives providing financial support for its technology start-ups, including the Cyberport Creative Micro Fund, Cyberport Incubation Programme, Cyberport Accelerator Support Programme and Cyberport Macro Fund. Cyberport has also launched the Cyberport Investor Network (“CIN”) to connect local starts-ups with worldwide

investors to address their fundraising needs at various stages of development. More than 100 investors have joined the CIN, raising more than \$200 million for Cyberport start-ups since its launch in 2017.

OUTLOOK AND VISION

30. Looking ahead, InvestHK is planning to add dedicated staff in the Mainland to tap its flourishing Fintech market, and to attract more Mainland Fintech companies to establish in Hong Kong. It is expected that virtual banks will commence operation within six to twelve months after acquiring a licence. The next phase of Open APIs (customer acquisition) in the banking sector is expected to be launched in October 2019. HKFTW 2019 will be held in AsiaWorld-Expo on 4-8 November on a larger scale. It is envisaged that the Hong Kong Fintech scene would continue to be very vibrant in the year ahead.

31. Fintech is fast evolving. Yet, an overall trend of decentralisation, disintermediation, personalisation and automation can be observed. The initiatives and measures for Hong Kong's Fintech development highlighted in the paragraphs above are in line with this overall trend. To become a vibrant Fintech hub in Asia, we must make use of our unique advantages and let Fintech companies and talents from all over the world meet, collaborate and explore new opportunities. We will perform our roles as a "promoter" and "facilitator" to allow overseas and Mainland Fintech companies to make use of Hong Kong's strengths to expand their markets. At the same time, we will nurture and support home-grown Fintech companies and talents and assist them in reaching out to the Mainland and overseas markets. We must also put Hong Kong's traditional strengths as a fund-raising centre to good use to assist Fintech companies at various stages of development to raise capital.

ADVICE SOUGHT

32. Members are invited to note the content of this paper. Views and comments on the measures taken to facilitate Fintech development are welcomed.

Financial Services and the Treasury Bureau
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