

# Hong Kong's Virtual Bank Business Model and the Development of Fintech

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# Highlights

## ❑ What is virtual banking?

Virtual bank is defined as a bank which primarily delivers retail banking services through the internet or other forms of electronic channels instead of physical branches – *HKMA*

## ❑ What is fintech?

Commonly considered to cover the application of AI, blockchain, cloud computing, and big data in areas such as payments, clearing and settlement, deposits, lending and capital raising, insurance, investment management, and market support – *HKMA*

## ❑ Pandemic accelerated adoption of virtual banking and fintech

*"In the past three years, Hong Kong people have shifted their mindset and are more willing to go digital in all aspects – include banking."*

# Hong Kong's Virtual Bank Business Model



# Virtual bank development in Hong Kong

- ❖ Since 2019, HKMA has granted 8 virtual bank licenses
- ❖ More than 1.2 million accounts have been opened as at April 2022
- ❖ Oldest customer: Age 90+

## **List of virtual banks in Hong Kong (as of 31 March 2023)**

- Airstar Bank Limited (*Xiaomi Corporation and AMTD Group*)
- Ant Bank (Hong Kong) Limited (*Subsidiary of Ant Group*)
- Fusion Bank Limited (*Tencent Holdings Limited and ICBC (Asia) Ltd*)
- Livi Bank Limited (*BOC Hong Kong (Holdings) Limited, Jingdong Digits Technology Holding Co., Ltd. and the Jardine Matheson Group*)
- Mox Bank Limited (*Standard Chartered, in partnership with HKT, PCCW and Trip.com*)
- Ping An OneConnect Bank (Hong Kong) Limited (*subsidiary of OneConnect Financial Technology Co., Ltd. and a member of Ping An Insurance (Group) Company of China, Ltd.*)
- WeLab Bank Limited (*subsidiary of WeLab*)
- ZA Bank Limited (*subsidiary of ZhongAn Online*)



# Strengths of virtual bank



## ***Fixed cost on infrastructure and financial product development***

- ❖ *Lower cost of acquiring new customers* – “50% of our existing consumers are from referral program (vs traditional bank’s 10%)”
  - Gaining the sheer number of potential customers
- ❖ Financial services used to provide for high-net-worth users, by using fintech, now *can offer to the mass market* (e.g. personal wealth management, flexible monthly instalment)
- ❖ *Speed up product development* – “time needed from development to delivery for a new feature is usually 6 months in traditional banks, we only needs 2 weeks”

# Business model of virtual bank

## *Provide new services and superior customer experience leveraging excellent technology*

- *Game-changing digital wealth advisory solutions* - "Customers can set multiple personal goals and the investment engine will provide investment recommendations for a customised investment portfolio".
- *Innovative subscription model* - "New payment platform for consumer electronics gadgets via partnering with local chained retailers".

## *Expanding to Southeast Asia Market and the GBA*

- *Virtual banks can help promote financial inclusion* - Indonesia is a vast country with a large population yet it is also one of the largest financially underserved markets in Asia, there are few financial institutions outside major cities.
- The size of market is important and the *GBA provides critical mass for growth*. In addition, we can leverage on our partners' network and know-how to tap into the mainland. Therefore, GBA market is included in our strategic plan.

# How to open a virtual bank account?

## Remote account opening

- Using a mobile phone, clients can access the mobile app or the website of a virtual bank, scan proof of identity, take a selfie and then submit personal information.
- More efficient and convenient than queueing up to open an account at a conventional bank.
- This service also offered by some conventional banks.

Take photo of HKID with phone



Upload photo



# How to deposit money to a virtual bank account?

## ***Faster Payment System (FPS):***

- Once you have opened a virtual bank account and registered for FPS, you can transfer funds to your virtual bank account from your traditional bank account by entering your email or phone number.

## ***Electronic Direct Debit Authorization (eDDA):***

- After linking your virtual bank account with your traditional bank account, you can directly withdraw funds from your traditional bank account through the virtual bank's mobile app interface.

## ***Transfer via account number:***

- This is the most traditional way of transferring money, where you input the recipient's bank account number and transfer the money.

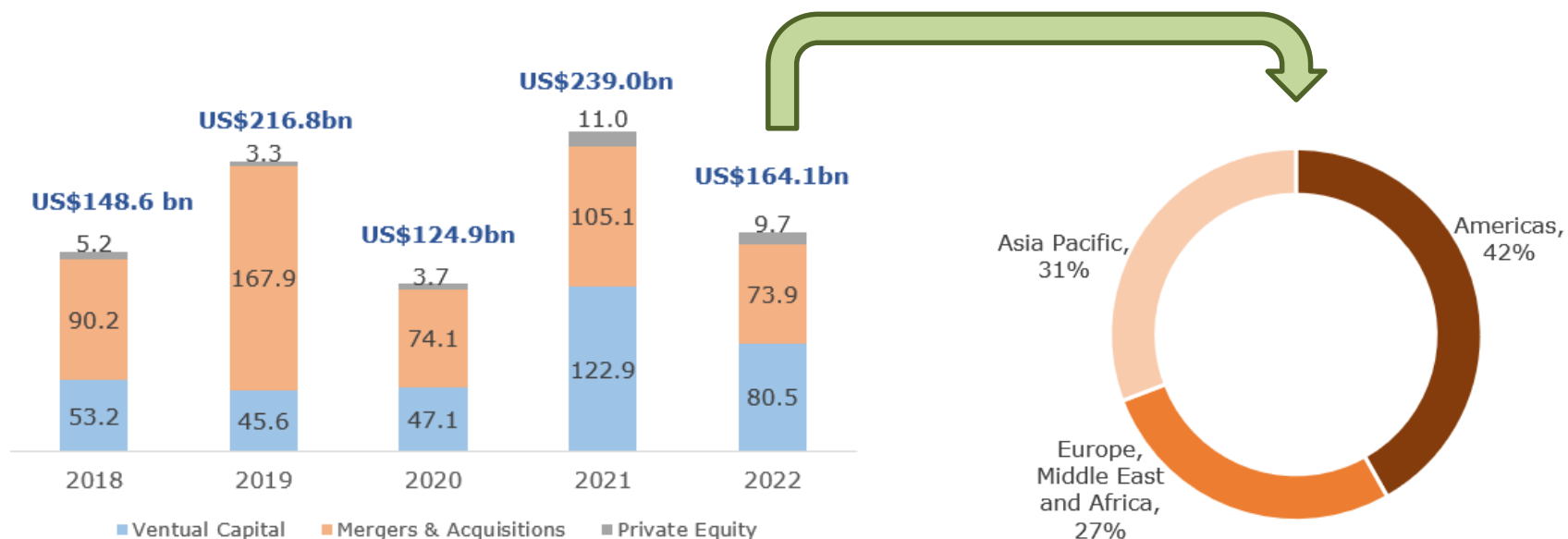




# Fintech Development



# Global fintech investment (VC, PE and M&A)



Source: KPMG, Pulse of Fintech H2'22, HKTDC Research

### Global Fintech Ecosystem Rankings 2021

1	San Francisco Bay, United States
2	London, United Kingdom
3	New York, United States
4	Sao Paulo, Brazil
5	Tel Aviv Area, Israel
6	Berlin, Germany
7	Boston Area, United States
8	Los Angeles Area, United States
9	Hong Kong, China
10	Singapore City, Singapore

Source: Findexable

# Fintech Facilitation Office (FFO)

1. a ***platform for exchanging ideas*** of innovative fintech initiatives among key stakeholders and conducting outreaching activities;
2. an ***interface between market participants and regulators*** within the HKMA to help improve the industry's understanding about the parts of the regulatory landscape which are relevant to them;
3. an ***initiator of industry research*** in potential application and risks of fintech solutions; and
4. a ***facilitator to nurture talents*** to meet the growing needs of the fintech industry in Hong Kong.

Source: <https://www.hkma.gov.hk/eng/key-functions/international-financial-centre/fintech/>

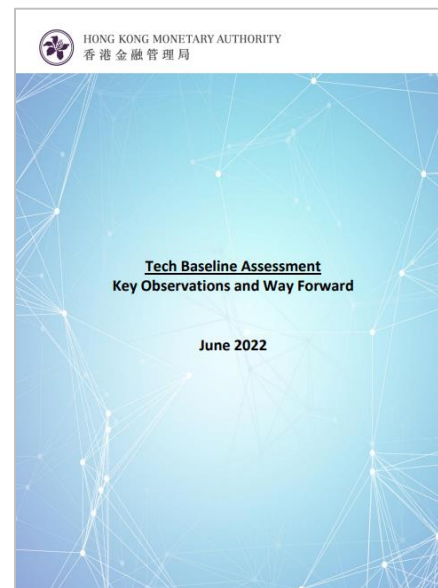
# Fintech 2025 Strategy

- 1. *All banks go fintech*** – HKMA rolled out a Tech Baseline Assessment to take stock of banks' current and planned adoption of fintech
- 2. *Future-proofing Hong Kong for Central Bank Digital Currencies (CBDCs)*** - HKMA has been working with the Bank for International Settlements (BIS) Innovation Hub Hong Kong Centre to research retail CBDCs and will begin a study on e-HKD; collaborate with PBoC in supporting the technical testing of e-CNY in HK
- 3. *Creating the next-generation data infrastructure*** – promoting Commercial Data Interchange (CDI), digital corporate identity and DLT-based (Distributed Ledger Technology) credit data sharing platform
- 4. *Expanding the fintech-savvy workforce*** – Industry Project Masters Network (IPMN) to provide internship opportunities to postgraduate students
- 5. *Nurturing the ecosystem with funding and policies*** - A new Fintech Cross-Agency Co-ordination Group will be established by the HKMA and various industry key players to formulate supportive policies for the Hong Kong fintech ecosystem.

# All banks go fintech

## *Key observations:*

1. Banks are prepared to dedicate healthy amounts of financial and talent investment to Fintech adoption, and most expect to make good progress in achieving their objectives for Fintech adoption by 2025;
2. Adoption of the surveyed Fintech business areas is expected to increase across the board. Although variations exist, it is clear that banks will increasingly apply Fintech to not just the most popular areas of risk management and compliance (**Regtech**), payments (**Paytech**) and lending (**Lendingtech**), but also to investment/wealth management services (**Investech/Wealthtech**), insurance business (**Insurtech**) and green banking (**Greentech**);
3. Banks intend to utilise extensively both established (e.g. **cloud**, **API** and **Low Code Automation**) and more novel technology types (e.g. **Artificial Intelligence** and **Distributed Ledger Technology**) as they press ahead with their Fintech strategies.



Source: <https://www.hkma.gov.hk/media/chi/doc/key-information/guidelines-and-circular/2022/20220623c1a1.pdf>

# e-TradeConnect



Facilitate settlement and financing of trades through sharing of trade data via a secured trade finance platform riding on the cutting-edge DLT.

## ***Advantages:***

- i. sharing of trade finance documents among participants on a real-time and "need-to-know" basis to protect the privacy and security of data;
- ii. enhancement of transparency of transactions as these operate on an open account basis so that the trading terms of a purchase order are more visible to all the relevant participants;
- iii. lowering of the risk of fraudulent financing as trade data stored in the platform can be verified and cross-checked;
- iv. reduction of the risk of duplicate financing to encourage banks to provide trade loans; and
- v. standardisation and digitisation of trade documents help reduce reconciliation efforts and human errors.



# Commercial Data Interchange (CDI)



商業數據通  
Commercial Data  
Interchange

- ❖ Launched in October 2022 by HKMA.
- ❖ Improve HK's data infrastructure, empower the industry, and encourage creativity for developing innovative financial products and solution.
- ❖ Data sharing between banks and sources of commercial data (e.g. utility companies) will have a single connection to CDI.

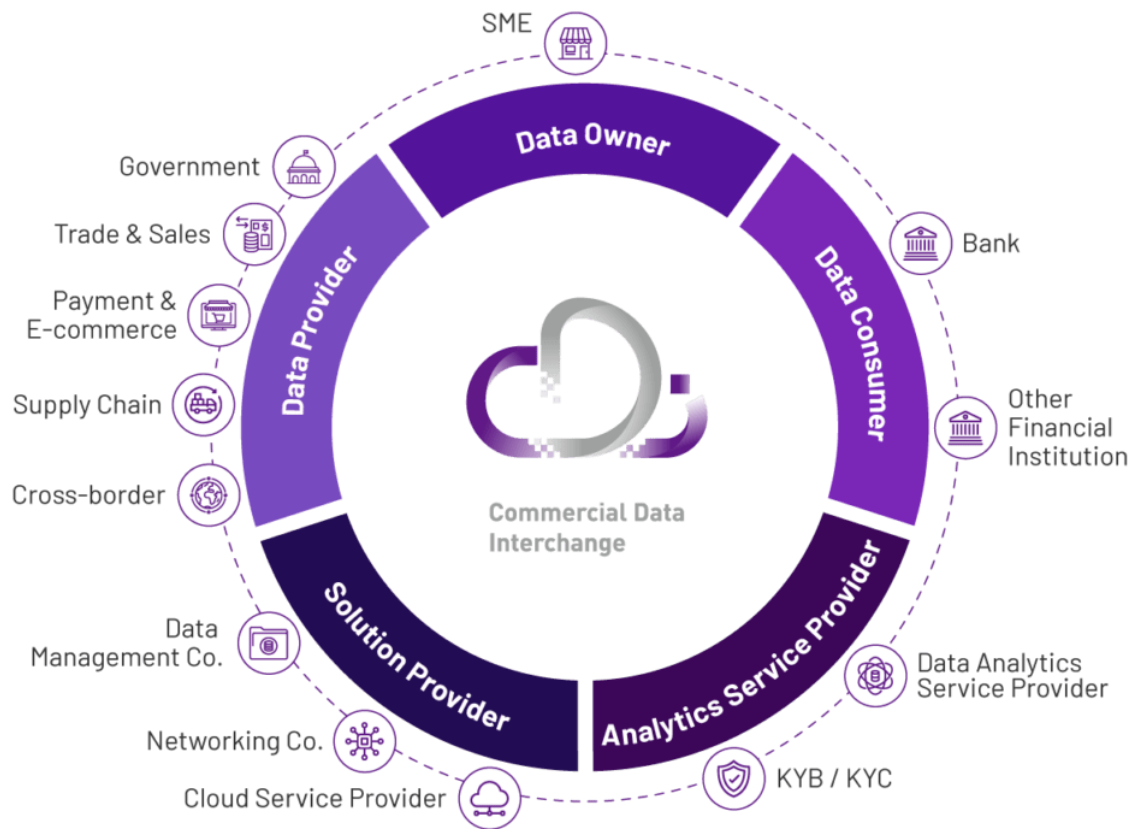
## **Key features**

- *Consent-based sharing* – Two types of data will only be shared with banks after data owners (SMEs) have given their explicit consent to banks and data providers, and specified the scope of the data to be shared as well as the duration: (1) data which contains information that could be used to directly identify a data owner; and (2) transactional data generated by data owners' activities.
- *Traceability* – Although data is not stored in CDI, its blockchain-based design means records on the platform are traceable and verifiable, ensuring a proper audit trail.
- *Standardisation* - As standardised application programming interface (API) and data models will be used, data sharing will be more scalable and efficient

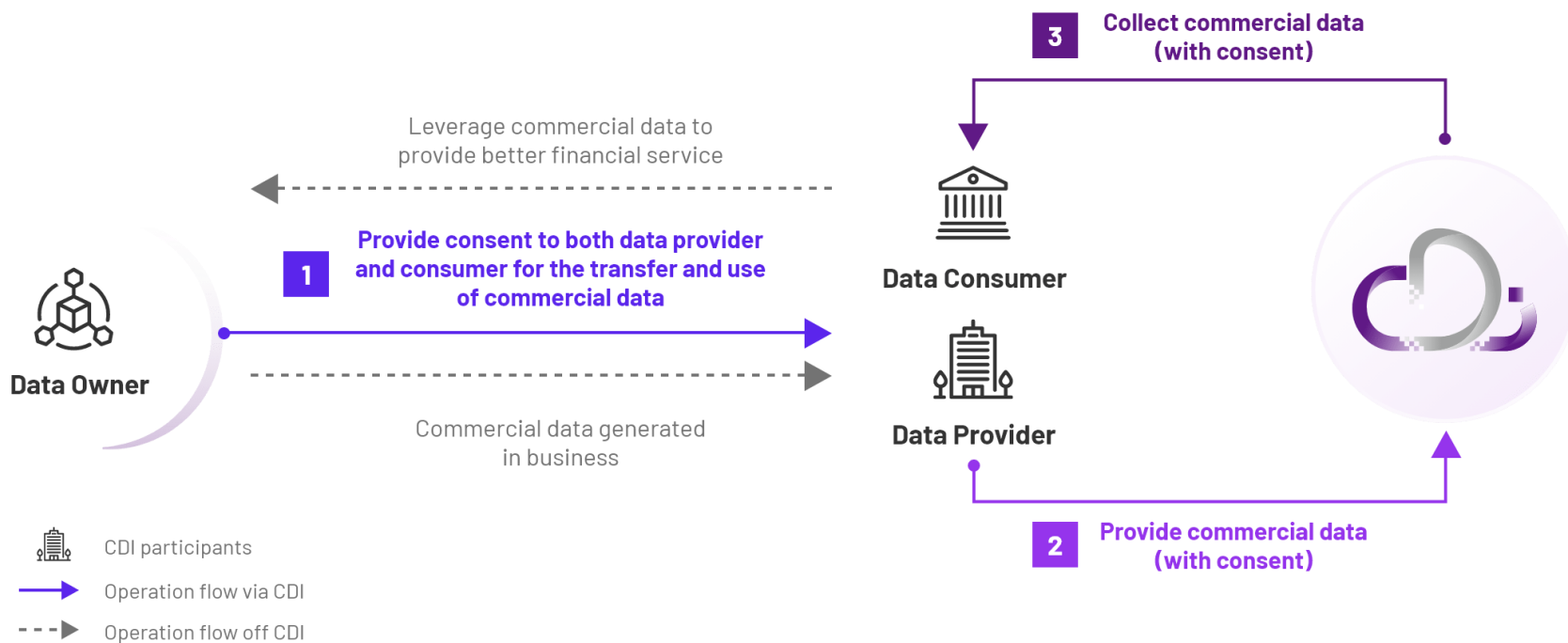
Source: <https://www.hkma.gov.hk/eng/key-functions/international-financial-centre/fintech/research-and-applications/commercial-data-interchange/>



# CDI Stakeholders



# Data and consent flow



# Key benefits of CDI

1. Once related mechanisms have been established, banks can connect with new data providers with minimal efforts, eliminating the need for building and customising connectivity for each data provider.
2. As banks can obtain more up-to-date and comprehensive information about their customers (e.g. SMEs), they can better understand the firms' latest operating conditions and business prospects. In turn, they can conduct more precise and objective risk assessments and offer customers the most suitable banking services.
3. The flexible design of the CDI platform enables banks to easily plug in their own applications to create new or extend existing functionality, in turn providing a conducive environment for developing innovative solutions on the platform.
4. Bank customers, particularly SMEs, will be able to take more control of their digital footprint and use their own data to enhance their access to financial services.

# Weakness of fintech development in Hong Kong

## *Lack of talents*

- “More financial institutions are now looking at blockchain so there is strong competition for the right talent.”
- “Hong Kong has a lack of engineers / cross-disciplinary talents and it is difficult to attract international talent to Hong Kong.”

## *High operating costs*

- Some software and programming development is conducted outside Hong Kong due to high operating costs in Hong Kong

# Strengths fintech development in Hong Kong

## ***Solid financial infrastructure***

- “Hong Kong started to upgrade its financial infrastructure a few years ago, so that it can stay with global competition on fintech development and maintain its position as an international financial hub.”
- “All in all, Hong Kong has the potential to become a key blockchain technology hub building on its expertise in finance, logistics and technological advancement.”

## ***Vibrant Start-up environment***

- “The pool of well-educated talent who have a strong interest in the finance industry, together with vibrant technology development in the Science Park and Cyberport, give massive room for Hong Kong’s fintech sector to grow.”
- Easy access to funding via public and private sectors.

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