



Are central banks issuing digital banking licences to counter the threat of fintechs and big techs?

Rise of digital banking licences
special report

Digital banks attract more capital as regulators open up markets

In Asia Pacific, South Korea's Kakao Bank, Alibaba-backed MyBank and Judo Bank in Australia are the top three digital banks that have raised the most capital

Since the advent of financial technology (fintech) companies and incumbent institutions started to digitalise their business, regulators have been on the back foot of supervising the activities of these new players.

However, there are a few front runners among them who saw the future and took steps to introduce regulation that facilitated the growth of fintechs – especially the new breed of digital banks. These were introduced in the US and the UK with the entry of players such as Simple (2012), Moven (2013), Fidor (2015), Monzo (2015), Revolut (2015) and Starling Bank (2017).

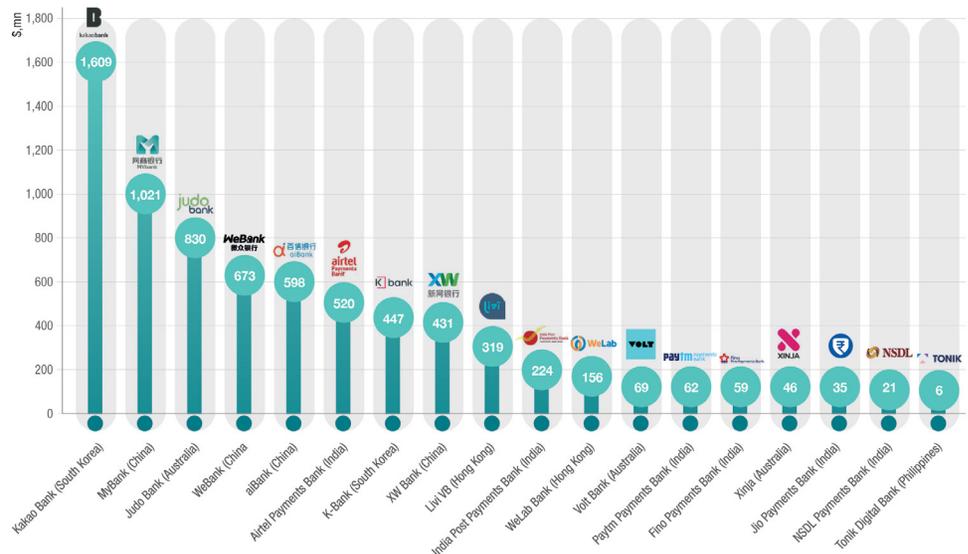
In Asia Pacific, the first generation of internet and direct banks were introduced in Australia and Japan where ING Direct and Japan Net Bank were respectively launched in 2000. However, when mobile and API technology came of age, the landscape was transformed by Chinese tech giants such as Alibaba and Tencent. WeBank, the digital banking subsidiary of Tencent started operating in China back in 2015.

As more jurisdictions recognise that financial services will become increasingly digitalised, similar regulations have also been issued in Hong Kong, South Korea, Singapore and Taiwan. It is expected that more regulators in the region will follow suit as the interest in digital financial services grows as reflected in the funding attracted by players from the private sector and venture capitalists.

South Korea's Kakao Bank has raised the most capital as of 4 March 2020, followed by Alibaba-backed MyBank and Judo Bank in Australia. Kakao Bank increased its paid-in capital to \$1.6 billion by issuing new shares worth \$467 million, after financial authorities approved its application to become the bank's largest shareholder with a 34% stake. On the contrary, the other internet-only bank in South Korea, K-Bank, only secured \$447 million in funding. KT Corp's application to raise its stake in the bank was disapproved as it has a history of violating fair trade regulations. Judo Bank in Australia has raised a total of \$830 million in funding over four rounds. In July 2019, the bank raised \$276 million, which is double the bank's initial funding target and the biggest single funding round for a startup in Australia.

The top 10 digital banks in APAC have raised \$6.7 billion in aggregate funding

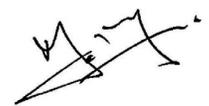
Figure 1. Total funding raised by digital banks in Asia Pacific (\$, million)



Source: Asian Banker Research

In aggregate, the four pure online banks in China raised the most capital compared to other markets, with a total funding of \$2.72 billion. MyBank was launched in June 2015 on initial capital of \$654 million, and it raised \$367 million in early 2020, which has enabled the bank to provide better services to small businesses, especially when the operations of small businesses have been seriously affected by the outbreak of COVID-19.

Recently, Hong Kong's WeLab raised \$156 million to launch WeLab Bank and further expand internationally, while Singapore's Tonik has received \$6 million in funding to launch its digital bank in the Philippines. More funds will be raised to launch the new digital banks in the next two years, given that 12 digital bank licences were issued in Hong Kong, South Korea and Taiwan last year and up to 10 digital bank licences will be issued in Singapore and Malaysia. Meanwhile, the Philippines is expected to release the virtual banking regulation this year. Thailand also intends to join other nations in licensing digital-only banks. Consequently, the capital raising outlook for digital banks in the region is expected to remain strong in the foreseeable future. **TAB**


Foo Boon Ping
 Managing Editor
 The Asian Banker

Are central banks issuing digital banking licences to counter the threat of fintechs and big techs?

Technology has enabled the world of finance to innovate and diversify rapidly in recent years – and regulators have struggled to keep pace until now

By Ellen Hardy



Four of the leading Asian Markets — Singapore, Hong Kong, Australia and China — have all adopted strong digital licence frameworks, with other countries in the region watching closely. Regulators on the other hand, have highlighted a desire to work together to establish global standards. Although to date, different countries have been notable in implementing their own distinct regimes. However, it remains to be seen whether regulators will allow Chinese giants such as Tencent and Alibaba's Ant Financial to enter their markets, and how they are going to manage the ambitions of big tech firms such as Facebook, Google, and Apple.

As central banks begin issuing digital-only banking — also known as neo, virtual, and challenger banks — licences

across the Asia Pacific region, questions are being raised about whether they are doing this to keep the ambitions of big tech firms, such as China's Tencent and Alibaba, and US tech giants such as Facebook, Google, and Apple at bay.

Financial regulators in Australia, Hong Kong, China, India, Japan, South Korea and Taiwan have all recently issued such new forms of licences, while Singapore is in the process of doing so. The first internet bank in Japan, Japan Net Bank, began its operations as early as October 2000, driven by the financial deregulation in the 1990s. Other internet banks that were established, such as Rakuten Bank and Sumishin SBI Net Bank, are operating under existing commercial banking licensing requirements.

LINE Financial and Mizuho Financial Group established a joint venture in May 2019 to prepare for the launch of a new digital-only bank by this year.

In Southeast Asia, Malaysia has issued its draft digital licensing framework, offering up to five digital licences for conventional and Islamic banks, while the Philippine monetary authority issued a rural banking licence for Tonik Digital Bank, the first pure-play digital bank in the region, to start business this year alongside existing virtual institutions CIMB Bank and ING Bank. Both CIMB Bank and ING Bank have commercial banking licenses and have a digital platform business model with minimal physical touch points through partner merchants. Once the virtual banking

regulations have been released, the current digital banks will be given one year as a transitional period to comply with the regulations in order to get the virtual banking licence.

Authorities in Thailand are trying to keep pace with their Asian counterparts, with the head of the central bank recently saying that it is looking to introduce digital lending and other services this year to promote competition and meet the needs of its underserved banking population. Vietnam has also indicated that it is likely to explore regulating digital banking in the near future.

In a study of digital bank licence holders and regulators in Hong Kong, Singapore, Australia and China to survey the virtual bank landscape, we found significant opportunities for this new era of finance — but they appear geared towards countering competition from big tech competitors entering the finance market.

HKMA takes an active approach while avoiding the China question

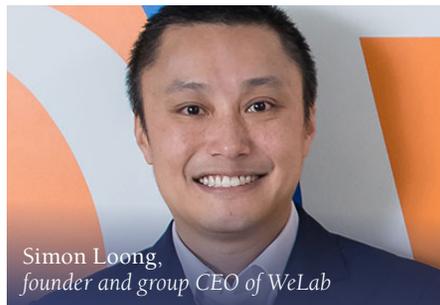
Hong Kong is catching up with China when it comes to online disruption of finance, with its regulator, the Hong Kong Monetary Authority (HKMA), taking the approach that the system can absorb the pressure of increasing competition. In contrast to other markets, it is notable that two of the winning licence bids are joint ventures led by two major incumbent banks, namely, Bank of China (Hong Kong) and Standard Chartered, which are also two of the territory's three note-issuing banks.

It has been argued that some Chinese fintechs are seeking to use a Hong Kong digital banking licence as a springboard to expand into other Asian markets. In fact, many would be leveraging off their access to southern China's Greater Bay Area to create scale for their Hong Kong operations, and that governments in the region are keenly aware of this. Hence, their position in the virtual bank market is critical, as it has been estimated that some 30% — \$15 billion — of Hong Kong's total banking revenue could be up for grabs.

As of 9 May 2019, the HKMA had issued banking licences to eight organisations, comprising joint ventures (JV) and consortium of mainly banks, telecommunication and technology companies, to operate as virtual banks.

The first batch of three licences was issued at the end of March to Livi VB Limited (JV between Bank of China Hong Kong, JD Digits (formerly JD Finance), and Jardines), Mox Bank Limited (JV of StanChart, PCCW, HKT and Trip.com) and ZhongAn Virtual Finance Limited (owned by ZA International).

In subsequent announcements, another five licences were granted to WeLab, Ant SME Services (Hong Kong) Limited (owned by ANT Financial), Infinium Limited (JV between Tencent, ICBC and Hillhouse Capital), Insight Fintech HK Limited (JV between Xiaomi and AMTD Group) and Ping An OneConnect Company Limited (owned by Ping An).



Simon Loong,
founder and group CEO of WeLab

Simon Loong, founder and group CEO of WeLab, expressed his satisfaction in receiving one of the licences granted by HKMA, “We are very proud that we are the only local fintech company in Hong Kong to be given a licence. We have 200 very experienced people in WeLab virtual bank. And we have Professor KC Chan, former secretary for financial services and the treasury of Hong Kong and former dean of the Hong Kong University of Science and Technology, as chairman of the bank and senior advisor to WeLab. This is a validation of our business model and industry standing. It will help open doors for our future relationships and to new markets.”

This means that WeLab has now gained entry into the retail banking market.

“The virtual bank licence in Hong Kong is exactly the same as for the commercial banks. There are no different classes of licences or restriction on activities based on whether it is a fintech, commercial bank or consortium that holds the licence. The licensed banks are not subject to a test period before they become fully operating banks. There is also no restriction and cap on taking deposits and banks can launch any retail banking products and services, even join the existing ATM networks. The greatest advantage is that it allows banks, through agreement between Hong Kong and Beijing, to access the 70 million population of the Greater Bay Area,” stated Loong.



Norman Chan,
former chief executive,
HKMA

Norman Chan, former chief executive of the HKMA, sees the launch of virtual banks as a key component of its Smart Banking Initiatives that facilitate financial innovation, enhanced customer experience and financial inclusion in the territory.

The HKMA says it will closely monitor the operations of virtual banks after they have commenced business, including customers' reactions to the new modes of delivery of financial services as well as the impact, if any, of these virtual banks on the banking sector in general. The HKMA expects to be able to conduct a comprehensive assessment of the situation about one year after the first virtual bank has launched its service.

It added that it “adopts a risk-based and technology-neutral approach to banking supervision,” which means that, when developing regulatory frameworks, it “will only base on the intrinsic characteristics of the financial activities or transactions, and the risks arising from them”.

The regulator is keen to oversee the growing use of artificial intelligence, re-

cently publishing a set of high-level principles on the use of the technology. This comes on the heels of questions about the effectiveness of HKMA's fintech sandbox, set up in 2016, which has been accused of helping banks experiment with fintech possibilities rather than help new players enter the market.



Developing a whole new banking model, not simply a digital bank

To incumbent banks, the new virtual banking licence means adopting a new way of operating. "The introduction of digital banking licences marks a convergence of two trends, commercial banks wanting to be technology companies and fintechs seeking to be licensed to operate the full range of commercial banking businesses under proper regulatory and governance requirements. So we are combining a nimble technology infrastructure with a new business model," stated Loong.

Deniz Güven, CEO of Mox, Standard Chartered's new virtual bank venture in Hong Kong, said that it began researching the project 18 months ago and focused on building it around customer pain points instead of products and consumer behaviour instead of demographics.

"Whether you call it a digital or virtual or neo bank, what we are trying to build is the future operating model. We are trying to build a new company and a new culture," he said. "The aim of the digital bank is building services instead of products. We are not going to sell a plastic card, but a service from end-to-end to solve pain points affecting customers right now.

Güven believes that if the new virtual bank wants to be impactful and

"Being a digital bank, our customers need greater confidence that their data and privacy are being respected and protected so they feel genuinely safe banking with us"

change the market, it has to focus on a new operating model. He noted that the bank's priorities are customer onboarding within five minutes, being cloud-based, while maintaining prudent risk frameworks, policies, and culture. His staff now numbers 160 people — half of whom are engineers.

In terms of services, Güven said that one of the features of the virtual bank will be the way it is building together and leveraging the strengths of JV partners, PCCW, HKT and Trip.com.

"We are thinking about how we can acquire customers and create a new customer end-to-end acquisition model with our partners, not simply creating traffic," he said.

He also hinted that a digital bank model was being built with a view to exporting to other markets in the future. "Currently, we have a laser focus on Hong Kong. After that, it's impossible to say where next. But with what we are building from tech and value proposition standpoints, everything is possible," revealed Güven.

Australia looks to bring independent players into the fold to challenge its "big four"

Meanwhile, Australia has taken a different tack, with the banking regulator providing licenses to new, independent players, in part to provide more competition for the "big four" banks that dominate the

country's finance market and which were roundly criticised in the 2017 royal commission inquiry.



For their part, the Australian Prudential Regulation Authority (APRA) has said that while it wants to encourage competition, it has no intention to treat challenger banks any differently from other deposit taking institutions. "It's not APRA's role to pick winners and losers," said Melisande Waterford, general manager of regulatory affairs and licensing. "APRA is keen to see new entrants succeed. APRA's licensing 'mission' is not to license as many new banks as it can, as quickly as it can. Rather, our mission is to facilitate the launch of viable entities."

The fourth licensee under APRA's scheme, Xinja, was granted its licence in September, joining Volt, Judo and 86 400. IN1 Bank became the fifth licensee under APRA's scheme, having been granted a licence in December 2019.

Xinja CEO and founder Eric Wilson said that the regulatory process was stringent. In order to navigate the regulatory process, he hired a number of key staff who had previously worked at APRA.



"There were months where more than 60% of our staff were working on materials for our regulators in one form or another, aiming for the full licence. It's

probably cost us well in excess of \$3.9 million (AUD 6 million) in salaries and consultants,” he said.

As the only 100% cloud-based bank in Australia, Xinja is aware that people will be watching how it tackles data privacy and emerging mobile security threats.

“We try to make our customers aware and not be afraid of our respective data and privacy obligations. Being a digital bank, our customers need greater confidence that their data and privacy are being respected and protected so they feel genuinely safe banking with us. Ultimately, we hope to offer configurable security options to give our customers more control,” Wilson said.

Wilson added that starting from nothing means Xinja has been able to build many of the necessary compliance controls into the core products and experiences. They’re also seeking to build gamification to their products, rejecting “poorly segmented marketing messages” in favour of a model where “personalisation has to become the product”.

These are issues that are not being properly addressed by the “big four” in Australia, said Ross Buckley, a professor at the University of New South Wales. He believes that the new wave of challenger banks poses an “existential threat” to their market dominance, especially in light of the royal commission that rocked public confidence.



Ross Buckley
Professor, University of New South Wales

“The simple fact is that a fintech can assess credit better than any bank, as well as the advantages of a lower cost business model,” he said. “Banks are not coming to terms with the fact that in 200 years, banking has been a customer game, but now it is a data game. If Face-

“These new digital challengers will also provide competition to spur existing banks to continue to improve on their digital offerings”

book got its payment system up, a major Australian bank could be in trouble within 18 months.”

Buckley also said that he fears that not only is Australia’s digital banking sector well behind China’s, but that the regulators do not have the institutional understanding to be able to keep pace with technology.

Chinese fintechs continue to lead the world in imagination and scale

As different jurisdictions look to embrace the digital banking future, it’s indisputable that everyone has one eye on the big Chinese players. The mainland has led the region generally, with four virtual banking licences issued since 2014.

To look at the pioneering leadership of WeBank, one of the original licence holders, is to understand why many fear its ability to completely shake up any new market that it enters. Alan Ko, head of fintech innovation at WeBank, agreed that his organisation takes a proactive approach to its operations.

“We work closely with our regulators to understand their requirements as well as the pain points, and co-build solutions to address them through regtech. For example, we have set up the Mailuo, a regulatory big data platform for the China Banking and Insurance Regulatory Commission (CBIRC), which includes risk index monitoring and fund flow tracking systems. We have also built a financial regulatory big data platform, a smart suggestions platform, and online voting and decision-making platform for Shenzhen Municipal Financial Service Office.”

WeBank’s approach to regulation is to not wait to be told what safeguards should be put in place, but to show regulators that they are working on key challenges such as system integrity for peak transac-

tion volumes that last totalled more than 300 million per day.

“Our explorations-based API banking strategy is to connect more industries and scenarios, embedding our banking services into different contexts and provide seamless user experience to our customers,” he explained.



Alan Ko,
Head of fintech innovation, WeBank

In terms of fintech, Ko said that its strategy remains with investing in AI, blockchain, cloud computing, and big data — not only to support the business, but also to build fintech ecosystem on top of these technologies. To put its scale in perspective, it has released 10 open-source applications, while its big data platform houses over 15 petabytes of data, with over 300 thousand batch jobs processed daily.

WeBank has remained coy about its intentions to move beyond the mainland, but Ko noted that in 2019 when it joined the Singapore FinTech Festival, it generated quite a lot of interesting conversations with the fintech communities around the world”.

Singapore takes a strong stance on profitability, capital, and IT controls

With Chinese fintechs such as WeBank taking a keen interest in Singapore’s digital banking potential, the Monetary Authority of Singapore (MAS) announced the biggest shake up to its financial sector

in two decades, with the introduction of up to five new digital bank licences.

The scheme will enable non-financial players such as tech and e-commerce companies to offer banking services. Two of the five licences will be 'full bank' licences, which will include the ability to take deposits from retail customers, while the remaining three will be digital wholesale licences to serve small and medium-sized enterprises (SMEs) and other non-retail segments.

MAS said that it has been driven to licence virtual banks because of the "unique value propositions and to add diversity and choice to the market". Of the countries which have so far entered this regulatory sphere, Singapore has established some of the toughest licensing requirements.

Entrants already face much stiffer rules than in markets such as Hong Kong, such as the requirements for full digital banks to have \$1.5 billion in capital as well as local control. Any new digital banking organisation may also face margin pressures, as MAS expects it to attract customers by offering more attractive deposit and lending rates than the incumbent banks.

"They may have access to more wide-ranging data sources and may adopt different credit risk assessment approaches to lend to under-served segments, such as the young and micro enterprises," a spokesperson for MAS said. "These new digital challengers will also provide competition to spur existing banks to continue to improve on their digital offerings."

MAS said that it received 21 applications across the two schemes, with seven for the digital full bank (DFB) licence and 14 for the digital wholesale bank (DWB) licence. It will announce the successful applicants in June 2020, and they are expected to commence business by mid-2021.

According to MAS requirements, a DFB will commence operations as a restricted DFB before becoming a full functioning DFB. The pace of growth of a restricted DFB will depend on its ability to meet its commitments and MAS' supervisory considerations.

However, it generally expects a DFB to be fully functioning within three to five years from commencement of business.

At the commencement of business, a DFB will have to meet minimum paid up capital requirement of \$11.13 million (SGD 15 million) and deposit caps of \$37.1 million (SGD 50 million) in aggregate, \$55,650 (SGD 75,000) per in-

“While these new licensing regimes will offer clarity and opportunity, they cannot solve the fact that the lines between technology organisations and financial institutions continue to become increasingly blurred”

dividual and limit its scope of customers from whom it can solicit deposits. The minimum paid up capital requirements will be progressively increased to \$1.1 billion (SGD 1.5 billion) and the deposit caps will be eventually removed when it becomes a fully functioning DFB.

Among the more notable of the 21 bidders who have joined the race for the five digital banking licences are Ant Financial; a Grab and Singtel consortium, which is owned 60% and 40%, respectively by the region's leading ride hailing and "super app" provider and telecommunication group and a Razer Fintech consortium which is 60%-owned by the subsidiary of the Singapore-based global e-gaming group Razer Inc. with strategic equity part-

ners that include Sheng Siong Holdings, FWD, LinkSure Global, Insignia Ventures Partners and Carro. It has announced plans to launch Razer Youth Bank aimed at younger customers.

Other bidders include the BEYOND consortium led by V3 Group and EZ-Link, and partners such as Far East Organization, Singapore Business Federation, Mitsui Sumitomo Insurance and Heliconia Capital Management; Validus Capital, a local SME financing platform, supported by Vertex Ventures and Dutch development bank FMO; and a consortium led by UK-based Enigma Group and partners that include Singapore-based companies, Qrypt Technologies, 2359 Media and Blockchain Worx.

The consortium model emerged as a key trend after MAS advised that applicants must demonstrate how their large user bases can help them generate profits if they were to win a licence. They have, apparently, also to taken into account the national interest when considering the licence application.

Global regulator sends warning to big tech companies

In general, regulators are trying to balance the benefits of a digitised, globalised world with the integrity and stability of the financial system. Fernando Restoy, chairman of the Financial Stability Institute at the Bank for International Settlements, outlined a number of key challenges that need to be considered when designing an adequate policy framework to safeguard the orderly modernisation of the financial industry on a global scale.

"Central banks do not typically have a mission to directly promote the digitisation of financial institutions. They should however contribute to efforts — together with other authorities — to adjust or set up a proportionate regulatory framework. The key challenge here is to maximise the benefits new technologies could bring while preserving the stability and functioning of the financial system," Restoy said.

Despite a low initial threshold, full digital banks in Singapore face the highest paid-up capital requirement

Figure 1. Comparison of licensing regimes – operational, capital and liquidity framework

	Australia	China	Hong Kong	India
Objectives	To balance the objectives of enhancing competition and efficiency in the banking industry and to maintain high levels of financial safety and financial system stability, and a broadly competitive, neutral regulatory framework	To provide access to capital and financial services to small and emerging companies and to bring competition to the state-dominated banking arena in order to create efficiency	To promote fintech and innovation and offer a new kind of customer experience and to help promote financial inclusion	To further financial inclusion by providing small savings accounts and payments/remittance services to migrant labour workforce, low income households, small businesses, other unorganised sector entities and other users
Scope of business	<p>Restricted ADIs:</p> <ul style="list-style-type: none"> Can continue to offer to the general public existing products that were established before Can offer new lower risk banking business products, including deposit products to a limited number of customers Deposit limit of \$1.3 million (AUD 2 million) on the aggregate balance of all protected accounts and deposit limit of \$165,260 (AUD 250,000) on the aggregate balance of all protected accounts held by an individual account-holder 	<ul style="list-style-type: none"> Covers personal banking, corporate banking and international banking Focus on lending to individuals and small businesses Can only manage Type II Bank Account and Type III Bank Account, which restrict account holder services, cap transaction and deposit limits, and does not allow incoming wire transfers 	Normally target the retail segment, including the small and medium-sized enterprises	<ul style="list-style-type: none"> Acceptance of demand deposits up to \$1,400 (INR 100,000) per customer Issuance of ATM/Debit Cards Payments and remittance services Business Correspondent (BC) of another bank, subject to the RBI guidelines on BCs Distribution of non-risk sharing simple financial products such as mutual fund units and insurance products Cannot accept deposits from non-resident Indians Cannot advance loans or issue credit cards Not allowed to setup subsidiaries for undertaking non-banking financial services
Number of licences	5 issued	4 issued	8 issued	11 "in-principle" licences issued
Players	<ul style="list-style-type: none"> Volt Bank (2018: restricted; 2019: full) Xinja (2018: restricted; 2019: full) Judo Bank (2019: full) 86 400 (2019: full) IN1 Bank (2019: restricted) 	<ul style="list-style-type: none"> WeBank (2014) MyBank (2015) XW Bank (2016) aiBank (2017) 	<ul style="list-style-type: none"> Livi VB (2019) Mox (2019) ZA Bank (2019) WeLab Bank (2019) Ant Bank (Hong Kong) (2019) Fusion Bank (2019) Airstar Bank (2019) Ping An OneConnect Bank (2019) 	<ul style="list-style-type: none"> Airtel Payments Bank (2015, operational) Fino Payments Bank (2015, operational) Paytm Payments Bank (2015, operational) Jio Payments Bank (2015, operational) India Post Payments Bank (2015, operational) NSDL Payments Bank (2015, operational) (Other players gave up on their licence or shut down their business)
Key Dates	Revised guidelines issued in May 2018	Finalising the first rules to cover online-only banking operations	Revised Guidelines on Authorization of Virtual Banks published in May 2018	Guidelines for Licensing of Payments Banks published in November 2014
Phases	<ul style="list-style-type: none"> Direct route and restricted route to become an authorised deposit-taking institution (ADI) Restricted route: a maximum of two years to meet the prudential framework in full 	No	No	The "in-principle" licence is valid for 18 months within which they have to fulfill all the requirements.
Minimum paid-up capital	Restricted ADI: Required to maintain the higher of \$2 million (AUD 3 million) plus resolution reserve or 20% of adjusted assets. The resolution reserve is typically set at \$661,030 (AUD 1 million)	\$285 million (RMB 2 billion)	\$38.6 million (HKD 300 million)	\$16 million (INR 1 billion)
Asset Restriction	Restricted ADIs should not grow significantly beyond a \$66.1 million (AUD 100 million) balance sheet	No specific requirement	No specific requirement	No specific requirement
Shareholding Structure	Ownership of ADIs is governed by the Financial Sector (Shareholdings) Act 1998 which limits shareholdings of an individual shareholder, or group of associated shareholders, to a defined percentage of the ADI's voting power	Maximum shareholding limit: 30%	<ul style="list-style-type: none"> No foreign ownership restrictions If virtual bank is not owned by bank/FI, applicant to be held by intermediate holding company in Hong Kong, under regulator purview 	<ul style="list-style-type: none"> The promoter's minimum initial contribution shall at least be 40% for the first five years The foreign shareholding would be as per the Foreign Direct Investment policy for private sector banks as amended from time to time. At least 26% of the paid-up capital will have to be held by residents
Capital and liquidity rules	<ul style="list-style-type: none"> Restricted ADI: All regulatory capital must be held as Common Equity Tier 1 (CET1) Capital, except for mutually-owned RADIs which may hold capital as Tier 2 Capital Restricted ADI: Required to maintain a Minimum Liquid Holdings (MLH) at the higher of 20% of liabilities; or the value of protected accounts and stored value at risk (if applicable) plus an amount equal to the resolution reserve 	<ul style="list-style-type: none"> Subject to the same regulatory requirements as any existing banks Minimum Core Tier 1 Capital Adequacy Ratio (CAR): 7.5%; Minimum Tier 1 CAR: 8.5%; Minimum CAR: 10.5% 	<ul style="list-style-type: none"> Subject to the same set of supervisory requirements applicable to conventional banks Maintain adequate capital commensurate with the nature of their operations and the banking risks Certain types of risk could be more accentuated. Appropriate controls to be set up for 8 basic risk types 	<ul style="list-style-type: none"> Minimum CAR of 15%. Tier I capital should be at least 7.5%. Tier II capital should be limited to a maximum of 100% of total Tier I capital. Should have a leverage ratio of not less than 3% Apart from Cash Reserve Ratio with RBI, they have to invest 75% minimum of their demand deposits in government treasury/securities bills with maturity up to one year and hold maximum 25% in current and fixed deposits with other commercial banks
ATM access/ Physical Presence	No physical branches	No physical branches	<ul style="list-style-type: none"> Will need to negotiate access with ATM operators Applicant must have physical presence in Hong Kong and locally incorporated No physical branches 	<ul style="list-style-type: none"> Permitted to set up outlets such as branches, ATMs, BCs, etc. to undertake only certain restricted activities At least 25% of physical access points including BCs in rural centres A controlling office for a cluster of access points

Note: As of 4 March, 2020

Source: Asian Banker Research

	Korea	Malaysia	Singapore	Taiwan
	To promote financial innovation and sound competition in the banking business and enhanced convenience of financial consumers	To offer banking products and services to underserved or unserved market and to add dynamism to the banking landscape	To ensure that Singapore's banking sector continues to be resilient, competitive and vibrant	To keep up with development trend of digitisation and business opportunities and to encourage financial innovation and deepen financial inclusion
	<ul style="list-style-type: none"> Cannot loan to corporate bodies other than small or medium-sized enterprises Shall not loan more than 15% of its equity capital to the same individual or corporation, nor 20% of its equity capital to any persons or companies with whom the individual or corporation shares credit risk. Exemptions are provided for a change in the bank's equity capital or the borrower's composition Shall not grant credit to its large shareholders 	Products offered should explain how it will address target segment needs	<ol style="list-style-type: none"> Digital full bank (DFB): retail and non-retail customer segments. <ul style="list-style-type: none"> During restricted phase, retail and non-retail deposits with deposit cap \$53,530 (SGD 75,000) per individual and \$35.7 million (SGD 50 million) in aggregate; Cannot safeguard other financial institutions' relevant money; Only be allowed to grant a total unsecured credit limit of up to two times of the individual's monthly income; No proprietary trading activities Digital wholesale bank (DWB): SMEs and other non-retail segments. SME and non-retail or retail fixed deposits above \$178,435 (SGD 250,000) 	Same as a conventional commercial bank
	3 issued	Up to 5 to be issued	Up to 5 to be issued – 2 for DFB and 3 for DWB	3 issued
	<ul style="list-style-type: none"> K-Bank (2017) Kakao Bank (2017) Toss Bank (2019) 	N/A	<ul style="list-style-type: none"> 21 applications received (7 for DFB and 14 for DWB) Ant Financial, a Grab and Singtel consortium, a Razer Fintech consortium, BEYOND consortium, Validus Capital and AMTD led consortium consisting of Xiaomi, SP Group and Funding Societies are among the applicants 	<ul style="list-style-type: none"> LINE Financial Taiwan (2019) Next Commercial Bank (2019) Rakuten International Commercial Bank (2019)
	<ul style="list-style-type: none"> Plan to introduce internet-only banks announced in June 2015 The Internet-Only Bank Act established in September 2018 	Exposure draft issued in December 2019, and finalised document expected by the first half of 2020	<ul style="list-style-type: none"> Extension of digital bank licences announced in June 2019 The successful applicants expected to be announced in June 2020 	<ul style="list-style-type: none"> Policy for internet-only bank established in April 2018 Revised guidelines issued in November 2018
	No	3-5 years "Foundational Phase" and Post-Foundational Phase	<ul style="list-style-type: none"> For DFB, includes restricted and full DFB Restricted DFB is further divided into entry stage and progression stage 	No
	\$20.6 million (KRW 25 billion)	<ul style="list-style-type: none"> Foundational phase: \$24 million (MYR 100 million) Post-Foundational Phase (by end of 5th year): \$71 million (MYR 300 million) 	2 DFB at \$10.7 million (SGD 15 million) each with progressive increase to \$1.1 billion (SGD 1.5 billion); 3 DWB at \$71.6 million (SGD 100 million) each	\$329 million (TWD 10 billion), same as setting up a conventional commercial bank
	No specific requirement	Foundation phase: \$473 million (MYR 2 billion)	No specific requirement	No specific requirement
	<ul style="list-style-type: none"> A non-financial investor may hold not more than 34% of the total outstanding voting stocks of an internet-only bank A company applying to possess more than a 10% stake in an internet-only bank must not have violated laws related to fair trade or taxes in the past five years 	Single shareholder that owns >50% may be required to organise financial and financial related subsidiaries under a licensed institution or financial holding company	DFBs limited to applicants anchored and headquartered and controlled by Singaporeans. DWB's are open to foreign companies as long as they are locally incorporated	<ul style="list-style-type: none"> At least one of the founders should be a bank or a financial holding company and its shareholding should reach 25% A non-financial corporation can take a majority stake of up to 60% A foreign financial institution can be the founder
	<ul style="list-style-type: none"> Granted a two- to three-year grace period to implement Basel III regulations Allowed to operate under Basel I capital regulations in the first three years of operation LCR: 80% or above in the first year; 90% or above in the second year; full implementation (100% or above) from the third year NSFR/leverage ratio: full implementation (NSFR of 100% or above, leverage ratio of 3% or above) since the fourth year 	During the foundational phase, subject to a more simplified regulatory requirement <ul style="list-style-type: none"> CET1 ratio of 8% (foundation phase) Shall hold an adequate stock of unencumbered Level 1 and Level 2A high-quality liquid assets equivalent to at least 25% of its total on-balance sheet liabilities Shall be exempted from the requirements under the policy document on Stress Testing 	<ul style="list-style-type: none"> Capital: Same as domestic systemically important banks - 6.5% CET1 ratio, 10% Total CAR, 2.5% capital conservation buffer, and up to 2.5% countercyclical capital buffer Liquidity: Minimum Liquid Asset (MLA) or LCR requirements 	Subject to the same set of supervisory requirements applicable to conventional banks
	Offline branches are approved only exceptionally	<ul style="list-style-type: none"> May participate in the Shared ATM Network and other cash-out services offered by PayNet Not allowed to establish any physical branches 	<ul style="list-style-type: none"> No access to ATMs/CDM network, but allowed to offer cashback services through EFTPOS terminals at retail merchants One physical presence for DWB 	Apart from a head office and customer service center, not allowed to set up physical branches

2019 saw a bumper crop of neobank licences issued in various Asia Pacific markets

Figure 2. Key neobanks/digital banking services in Asia Pacific

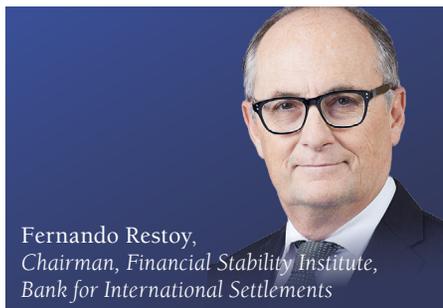


Notes:

Standalone digital banks licenced to operate under existing commercial banking licensing requirements

* Not standalone digital banks but digital banking services/brands introduced by existing licenced commercial banks under prevailing requirements

Source: Asian Banker Research



He noted that the principle ‘same activity, same regulation’ has been frequently used to stress the need for a level playing field between new fintech and big tech companies and traditional banks, however it must be acknowledged that different

types of institutions generate different risks when performing the same activity.

“Arguably, the risks created for the financial system not only depend on the activity per se but also on the combination of different activities on the balance sheet of an institution,” he added.

Critically, in setting the tone for regulators, Restoy stated that “activity-based regulation cannot entirely substitute entity-based regulation”. This appears to be a shot across the bows of big tech firms, such as Alibaba, Apple, Facebook, and Google, who are increasingly active in the banking and finance markets, and who by and large have

been arguing to regulate the activities that they conduct in the space rather than licensing them as institutions.

And while these new licensing regimes will offer clarity and opportunity, they cannot solve the fact that the lines between technology organisations and financial institutions continue to become increasingly blurred.

But no matter who is doing the innovating, both regulators and the banking and finance industry should take note of the lessons learned from some of the problematic tech unicorns: namely that the people policing the standards will often be several steps behind the disrupters. **TAB**

Increasing certainty in a core banking transformation

Andrew Beatty, senior vice president and head of global banking solutions at FIS, discusses the foundation of a modern banking platform and ensuring certainty of success in a core banking transformation



The rise of digital-only banks is transforming the financial services landscape in Asia Pacific, where regulators have of late been issuing licences that allow new virtual banks and fintech consortia to operate alongside of incumbent banks.

These new players appear to have some advantages over their more traditional counterparts. Andrew Beatty, senior vice president and head of global banking solutions at FIS, identified some of these strengths: “They are unencumbered by costly branch networks, legacy technology stacks and outmoded thinking. Digital-only banks offer a fresh approach to banking with a total focus on the customer experience.”

The tipping point for change

A closer look at these digital banks reveals that many are also doing things differently. He elaborated: “Often, they don’t run their own core technology, but rather rely on partners or third parties – sometimes even other banks. Ironically, this age of increased competition is also one of greater collaboration.”

Beatty feels that there is an enormous opportunity for banks, whether neo or incumbent, to revisit first principles and core competencies as they confront the hard decision to redefine their core technology stack.

A big part of the challenge has been about gaining the agility and flexibility needed to meet rising customer expectations, as well as competitive pressures and regulatory demands. From the technology perspective, this may require a new sustainable, modern banking platform that is built on a new core infrastructure that can function across channels, devices, in real-time that enables the bank to become more agile and customer-centric.

Foundation of a modern banking platform

Beatty explained: “A modern banking platform must be able to meet the unique challenges and opportunities of the digital age. And it means building on a number of key foundational elements. For instance, it entails core elements that can be exposed via application program interfaces (APIs) to be consumed by the bank and third parties, in order to support new business models and respond to evolving customer needs quickly and easily.”

A cloud and open architecture-based core infrastructure platform that supports APIs and microservices is especially critical in this new digital landscape. And that also means enabling the bank to add new components and include third-party vendors as required to create unique digital offerings that add real customer value and aid retention.

Another important foundation is for key platform components to be self-contained and developed individually accordingly to open standards.

“You can maintain and change anything where and when you want to, without affecting other core components,” he elaborated.

Banks can also leverage technologies that utilise “moment in time” data that is live, and able to deliver continuous customer engagement. The foundation for this is event-based architecture (EBA) and event streaming. With an EBA approach in the technology stack, banks can deliver digital experiences tailored to their customers’ interactions (events) as they occur.

Certainty of success in core banking transformation

However, detractors of core banking transformation will be quick to point out that it is a highly fraught undertaking and will cite the many high-profile projects that have failed despite the abundance of support, effort and resources dedicated to them.

Beatty believes that the answer to these concerns revolves around ensuring solution certainty and delivery certainty, and that invariably means “looking very hard for the proven track record of whatever and whoever it is that you are evaluating and selecting,” he remarked.

For more information, contact us:

Jennifer Lim

International Marketing,

Banking Solutions

Email: jennifer.lim@fisglobal.com



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150 Cecil Street #08-01
Singapore 069543

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