

Banks - Thailand

Misconceptions about virtual banking

Industry Overview

Virtual banking licenses could drive sector funding cost

The Bank of Thailand (BoT) will accept applications for virtual banking licenses from 20 Mar-19 Sept to be followed by a nine-month selection process and a year of preparation for operation. As a result, virtual banks should begin to operate around 1H26. We believe it will be a challenge for virtual banks to succeed in Thailand. First, they do not have superior cost efficiency to traditional banks, in our view. Second, Thailand has a shortage of data/data infrastructure. Third, virtual banks will be subject to strict BoT regulation. Moreover, we expect the size of virtual banks to be small and do not expect them to have a material impact on our bank estimates/valuations. Nonetheless, virtual banks are expected to compete for deposits at the initial stage and could drive funding cost.

Most virtual banks lack scale and are not profitable

In South Korea, China, and the UK, virtual banks' asset sizes account for $\leq 1\%$ of the whole banking system's assets. We believe virtual banks have failed to make inroads because 1) traditional banks have improved their mobile applications, 2) not every customer is online-literate, and 3) there is a lack of trust given the absence of physical branches. Note that a number of virtual banks have failed and exited the market.

No lower cost to serve than traditional banks

Most virtual banks have a comparable cost-to-asset ratio to traditional banks. Despite the absence of physical branches/ATM networks, virtual banks must invest considerably in IT infrastructure.

Require credit data quality and infrastructure

To develop specialized products and enhance risk models, virtual banks require credit and alternative data. This is a challenge because Thailand lacks data/data infrastructure, both for alternative and credit data. Even though the Thai Bankers' Association targets to adopt an open banking system in 2026, we believe there will be a delay.

Challenges from strict BoT regulations

One of the main issues with virtual banks is the tight regulation expected. Virtual banks would be subject to the same BoT regulations as traditional banks and may even face tighter scrutiny on some issues such as downtime for their operations.

Successful virtual bank business models

We have studied and found key success stories from three profitable virtual banks in three countries: Kakao Bank – South Korea, Webank - China, and Starling Bank – UK. We look at two business models: First, offering low-yield loans with a government guarantee, like Kakao Bank with housing deposit loans and Starling Bank with EU-guaranteed small and medium-sized enterprise (SME) loans and mortgages. Second is the use of data and the ecosystem of a huge platform to improve the risk model and increase fee-based income, as Webank did in China.

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Timestamp: 08 March 2024 05:21AM EST

08 March 2024

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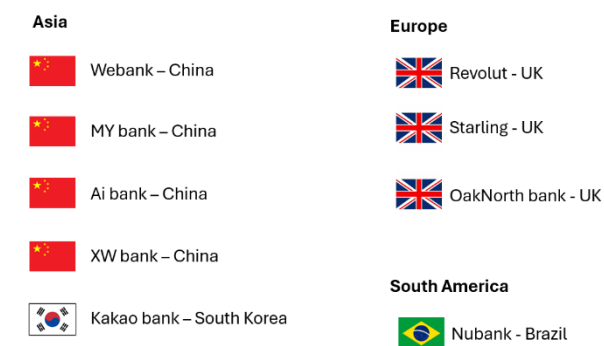
History of virtual banks

Most well-known virtual banks, such as N26, Monzo, Revolut, Starling Bank, Webank, and Kakao Bank, were founded between 2013 and 2016. Most of them began as Fintech to provide better mobile apps, greater interest rates, and lower or nil transaction fees, and then expanded to offer services to underserved or unserved clients. Hundreds of virtual banks have come into operation, but only a handful of them were profitable in 2022.

Our study of virtual banks in China, the UK, and South Korea found that they have significantly small asset sizes amounting to less than or equal to 1% of the banking system's total assets in 2022 (Exhibit 2). In our view, we believe there are three main reasons why virtual banks have not been able to take over the banking system: 1) traditional banks have improved their mobile applications to increase customer satisfaction to compete with virtual banks, 2) some customers are not well-versed in technology, and 3) and customers tend to trust traditional banks with physical branches rather than virtual banks with no branches.

Exhibit 1: Profitable virtual banks

Example of profitable virtual banks in 2022

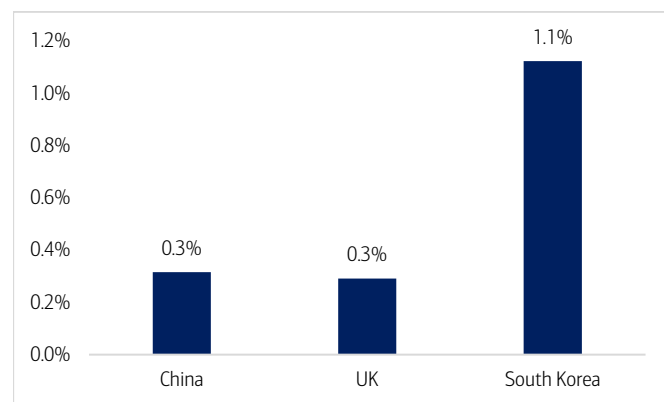


Source: Banks, Kiatnakin Phatra Securities

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Exhibit 2: Virtual banks' total assets as a % of the banking system

Total assets of virtual banks are much smaller than those of traditional banks



Source: Banks, Central banks, Kiatnakin Phatra Securities

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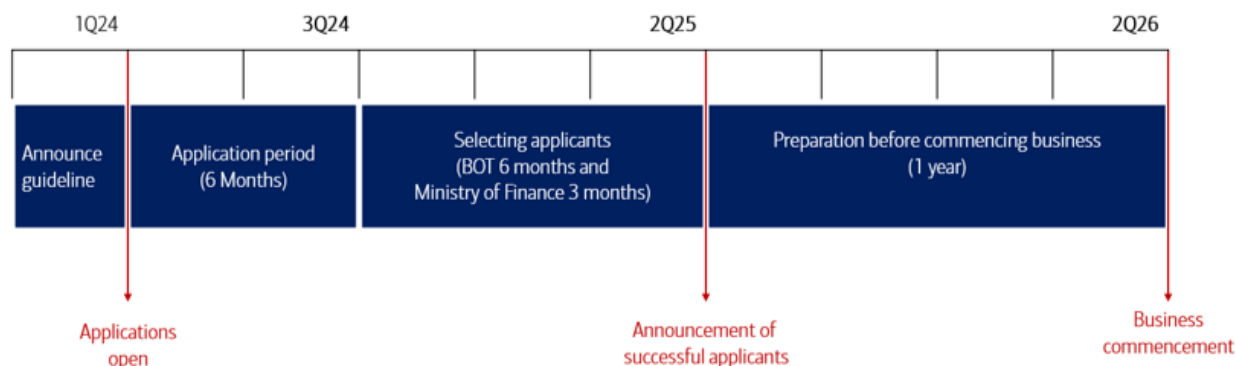
Timeline of virtual banks in Thailand

Registration for virtual banking licenses will commence from 20 March and run until 19 September, after which the BoT and the Ministry of Finance (MoF) will take about nine months to screen applications and announce results in 2Q25. Those approved will have one year to prepare before launching their services in 1H26 (Exhibit 3). Even though the MoF said that there is no restriction on the number of licenses, we estimate that there will be around three because the BoT has limited staff to oversee the virtual banks. In recent years, we have seen news of some groups interested in virtual banking licenses, including 1) the consortium of Gulf Energy Development, Krungthai Bank, Advanced Info Service, and PTT Oil and Retail Business (OR); 2) the cooperation between Siam Commercial Bank (SCB) and Kakao Bank; 3) Ascend Money, a subsidiary of CP Group; and 4) Jaymart (JMART).

We believe the launch of virtual banks will have no impact on our estimates or valuations for banks since their size will most likely be very small; nonetheless, it may have a negative impact on financing costs in the early phase because we believe newcomers will fight to expand their deposit base so they will most likely have overlapping customers with some small banks or unsecured finance companies.

Exhibit 3: Thai virtual banks – Timeline

Virtual banks are expected to start operation in 1H26



Source: BoT, Kiatnakin Phatra Securities

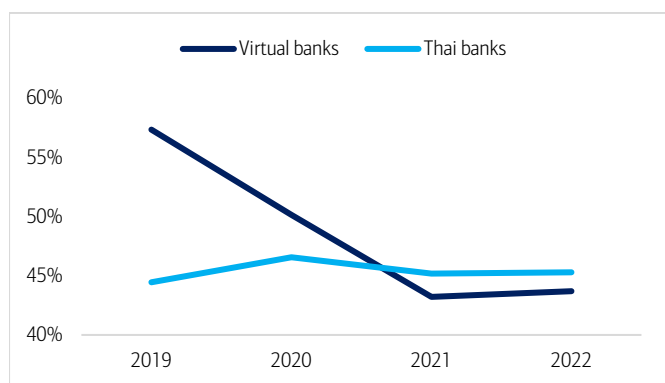
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Huge IT expenses for both staff and infrastructure

Virtual banks' cost efficiency remained consistent in 2021-2022, similar to Thailand's traditional banks, with an average cost-to-total asset ratio of roughly 1.8%, slightly higher than the 1.7% average among Thai traditional banks (Exhibit 5). Despite having fewer employees owing to the lack of physical branches, virtual banks incur significant operational expenses, the majority of which are IT-related, including both IT staff and infrastructure. It is difficult to cut down on that cost since it is necessary for virtual banks to maintain their IT systems and networks to offer consumers trust (as there are no physical branches for customers to use when the system is down) and meet the BoT's requirement on limited downtime. As a result, we believe virtual banks do not have the benefit of cheaper costs to compete with traditional banks.

Exhibit 4: Cost to income ratio

Virtual banks have slightly lower cost-to-income ratios than traditional banks

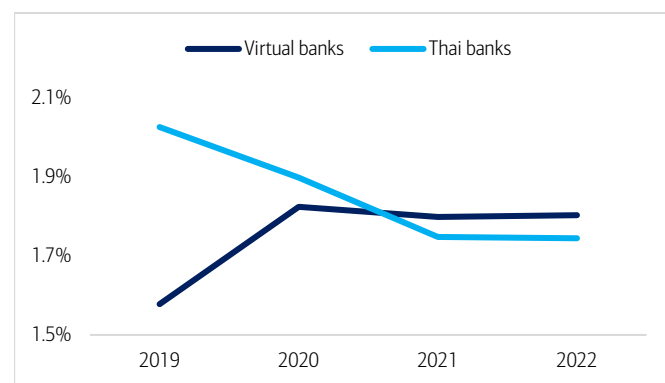


Source: Banks, Kiatnakin Phatra Securities

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Exhibit 5: Cost to total asset ratio

Virtual banks have slightly higher cost-to-asset ratios than traditional banks



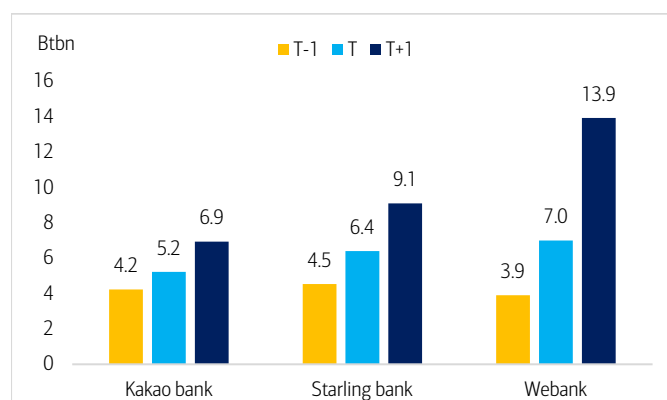
Source: Banks, Kiatnakin Phatra Securities

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Kakao Bank, Starling Bank, and Webank incurred operational expenses of around Bt5-7bn in their first profitable year (Exhibit 6), which is a significant sum when compared to the BoT's minimum paid-in capital of Bt5bn. Furthermore, IT investment is not a one-time expense; it includes research and development (R&D) and cost maintenance to ensure continuous improvement. Thai traditional banks have spent more than Bt10bn (Exhibit 7), or about 0.2% of total assets, on IT over the previous six quarters, and this investment is expected to rise further. We expect virtual banks to spend more money on IT than traditional banks due to their limited downtime requirement.

Exhibit 6: Virtual banks – Operating expenses at first profitable year (T)

At the first profitable year, virtual banks have operating expenses of Bt5-7bn

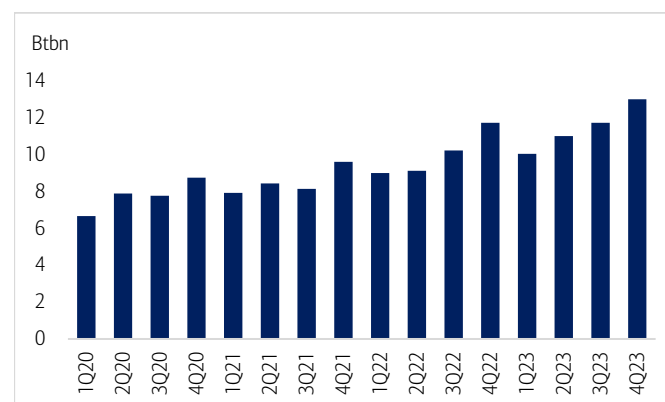


Source: Banks, Kiatnakin Phatra Securities

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Exhibit 7: Thailand's banking system – IT expenses

IT expenses have continued to increase



Source: BoT, Kiatnakin Phatra Securities

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Require credit data quality and infrastructure

To develop specialized products and enhance risk models, virtual banks require credit and alternative data. Thailand has a shortage of data and bad data infrastructure, both for alternative and credit data. The Thai Bankers' Association stated that open banking will begin in Thailand in 2026, however, we believe there may be a delay because of conflicts of interest. Without open banking, virtual banks need time and more capital to continue collecting data via trial and error to enhance their risk models.

Challenges from strict BoT regulations

One of the main issues with virtual banks is the tightening of BoT regulations. The BoT has stressed that virtual banks would be subject to the same regulations as traditional banks, as well as certain tighter requirements, such as limited downtime (Exhibit 3). Virtual banks must have paid-in capital of at least Bt5bn on the day of business commencement and up to Bt10bn before exiting the restricted period (the first three to five years). Existing commercial banks are limited to one virtual bank license per bank and are not permitted to utilize the mother banks' brands, trademarks, or symbols if they wish to operate a virtual bank.

The BoT requires a few key qualifications from virtual bank applicants that can be summed up as follows: 1) a viable and sustainable business model; 2) the ability to access, manage, secure, and use a variety of data types and the existence of a chief technological officer (CTO) and at least one director with at least three years of experience in digital services IT; and 3) strong governance, risk management, and financial position, as well as financial support from shareholders.

With the tighter regulations, we believe virtual banks will find it difficult to succeed due to the need to introduce innovative products and new value proposition to their clients, like start-ups, to compete with traditional banks.

Exhibit 8: Thai virtual banks – Requirements

Virtual banks have greater restrictions than traditional banks in terms of downtime



Source: BoT, Kiatnakin Phatra Securities

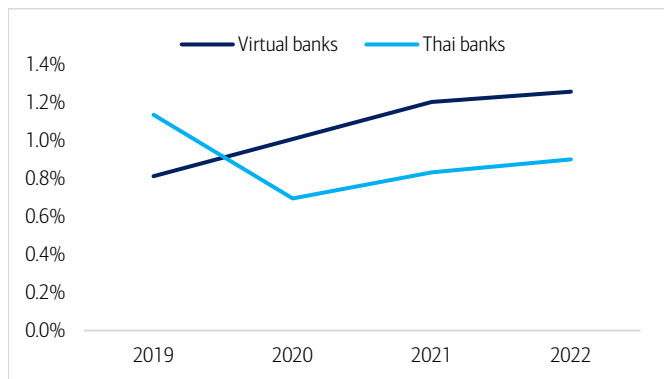
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RoA and RoE higher than traditional banks

In 2022, virtual banks had an RoA of roughly 1.3%, which is higher than Thai traditional banks' 0.9% (Exhibit 9) due to higher non-interest income (Exhibit 10) while their RoE of 19.3% was greater than Thai traditional banks' 7.6% (Exhibit 11), owing mostly to higher leverage exceeding 10x versus Thai traditional banks' 7x (Exhibit 12). Given that the BoT will be regulating virtual banks similarly to traditional banks, Thai virtual banks should have a lower ROE than international virtual banks, owing to their lower leverage.

Exhibit 9: RoA

Virtual banks' ROA is higher than Thai traditional banks

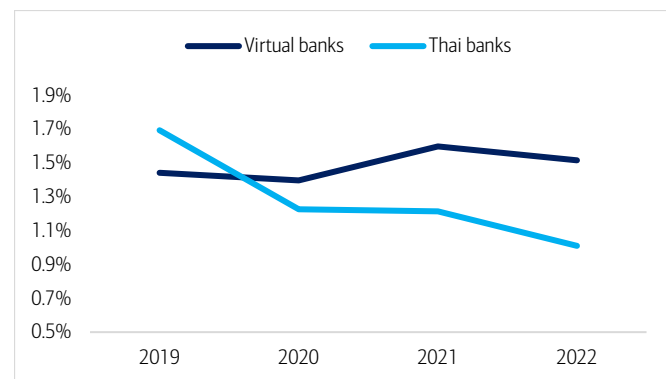


Source: Banks, Kiatnakin Phatra Securities

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Exhibit 10: Non-interest income to total assets

Virtual banks' non-interest income to total assets is higher than Thai traditional banks

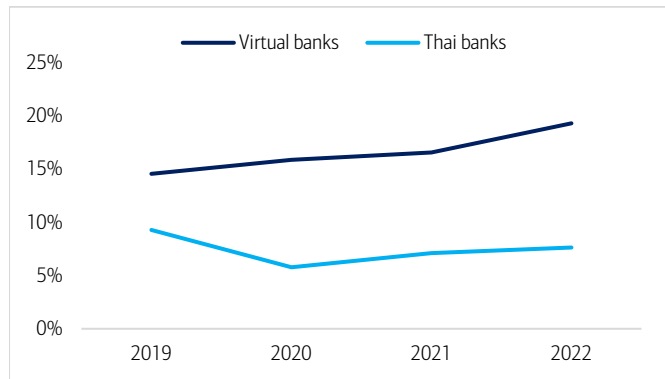


Source: Banks, Kiatnakin Phatra Securities

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Exhibit 11: RoE

Virtual banks' RoE is higher than Thai traditional banks

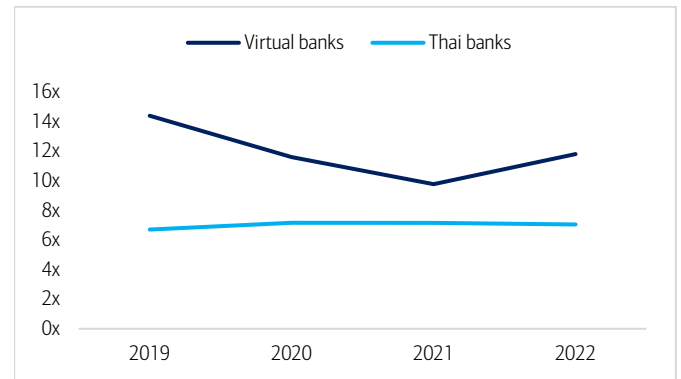


Source: Banks, Kiatnakin Phatra Securities

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Exhibit 12: Leverage ratio

Thai traditional banks have a lower leverage than international virtual banks



Source: Banks, Kiatnakin Phatra Securities

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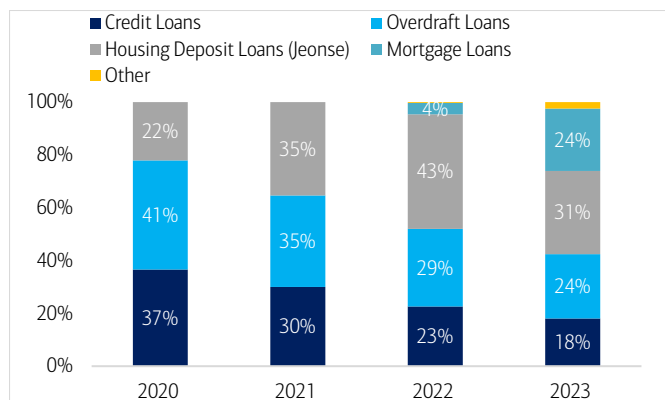
Heterogenous success stories for virtual banks

We summarize key success stories from three profitable virtual banks in three countries (Kakao Bank – South Korea, Webank – China, and Starling Bank – UK). The first success story is the offering of low-yield loans with a government guarantee, like Kakao Bank with housing deposit loans (Exhibit 13) and Starling Bank with EU-guaranteed SME loans and mortgages (Exhibit 14). Second is the usage of data and the ecosystems from their huge platforms to improve risk models and increase fee-based income, like what Webank did in China.

Even data-rich countries, such as the United States, have struggled to build a profitable high-yield loan virtual banking system (i.e., Marcus by Goldman Sachs). We think virtual banks might not be suitable for this business model (high-yield loans). With low data quality and no guaranteed loans, it is a challenge for virtual banks in Thailand to succeed, if they only focus on the unserved and underbanked segments, as the BoT wants.

Exhibit 13: Kakao Bank – Loan by segment

Kakao Bank's largest loan segment is housing deposit loans which are secured loans with guarantees

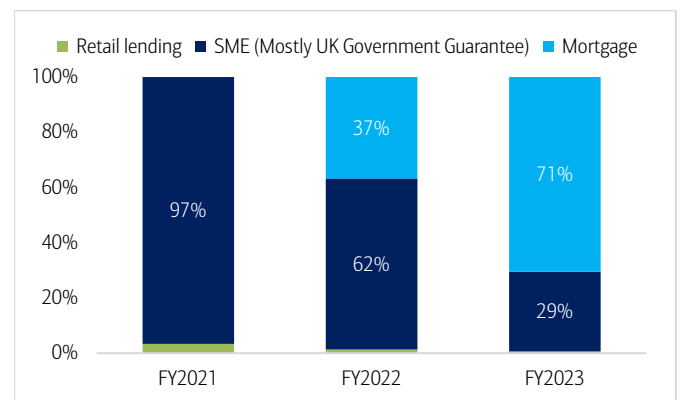


Source: Kakao Bank, Kiatnakin Phatra Securities

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Exhibit 14: Starling Bank – Loan by segment

Starling Bank's loan portfolio is primarily made up of secured loans

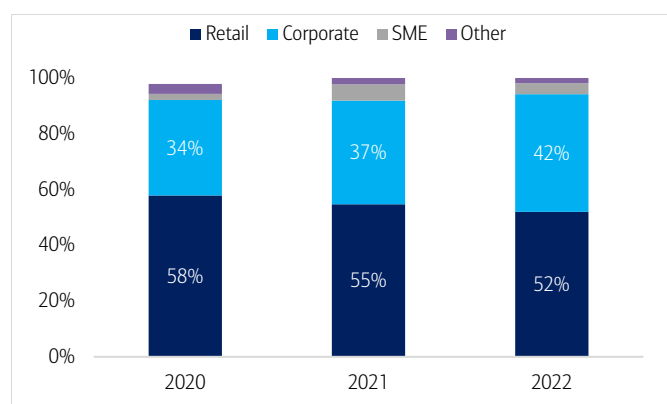


Source: Starling Bank, Kiatnakin Phatra Securities

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Exhibit 15: Webank – Loan by segment

With the rich ecosystem of Wechat, Webank can strengthen its risk model and grow fee-based income to become a viable virtual bank

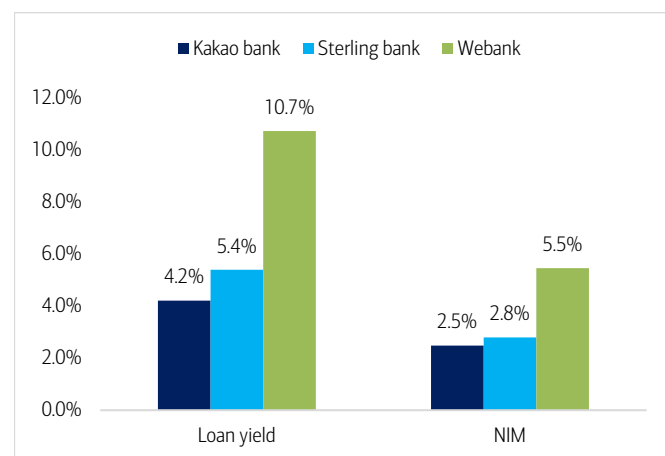


Source: Webank, Kiatnakin Phatra Securities

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Exhibit 16: Virtual banks' loan yield and NIM in 2022

Most profitable virtual banks have moderate loan yields and NIMs

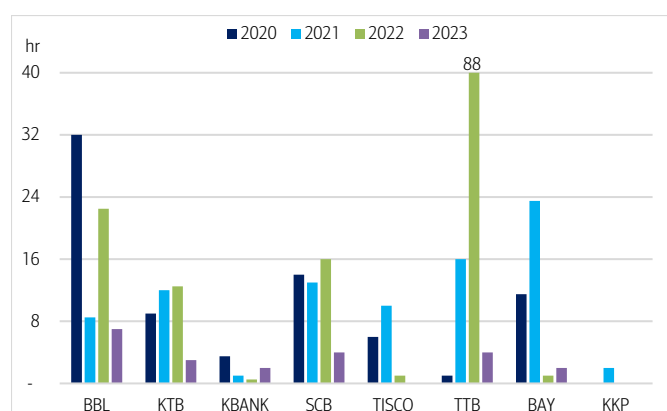


Source: Banks, Kiatnakin Phatra Securities

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Exhibit 17: Thailand's banking system – Downtime

With increased IT investment, Thai banks have decreased downtime to less than eight hours by 2023

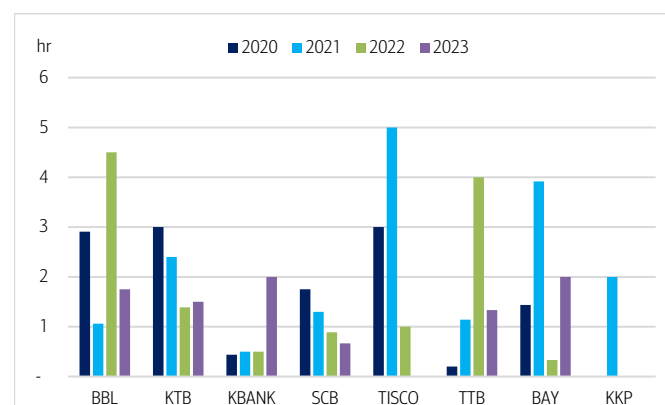


Source: Banks, Kiatnakin Phatra Securities

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Exhibit 18: Thailand's banking system – Average downtime per event

The average downtime per event is approximately 1.5 hours



Source: BoT, Kiatnakin Phatra Securities

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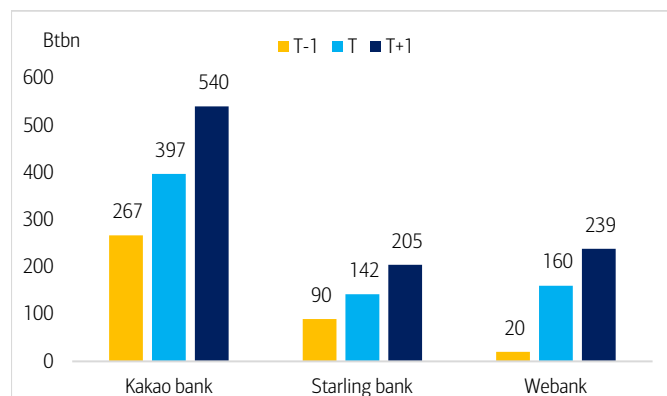
Number of accounts and loans at first profitable year

If we look at the three profitable virtual banks (Kakao, Starling, and Webank), the required loan portfolio to reach breakeven is Bt142bn, but they have to depend on the loan mix. This suggests that virtual banks will require total equity of around Bt14.2bn with a 10% CET-1, which is greater than the minimum capital requirement of the BoT. If they incur a loss a few years before breakeven, they will need additional paid-in capital.

We provide one example of a non-profitable virtual bank, which is Mox, a Hong Kong virtual bank. Mox is a virtual bank backed by Standard Chartered, in partnership with Hong Kong Telecom, PCCW, and Trip.com. Mox was created in 2020 with paid-in capital of roughly Bt8bn. It received further capital injection of roughly Bt10bn to retain equity in the face of continued net losses. Mox has yet to break even with 1H23 loans totaling roughly Bt30bn.

Exhibit 19: Virtual banks – Loans at first profitable year (T)

The lowest loans during the first profitable year were around Bt142bn

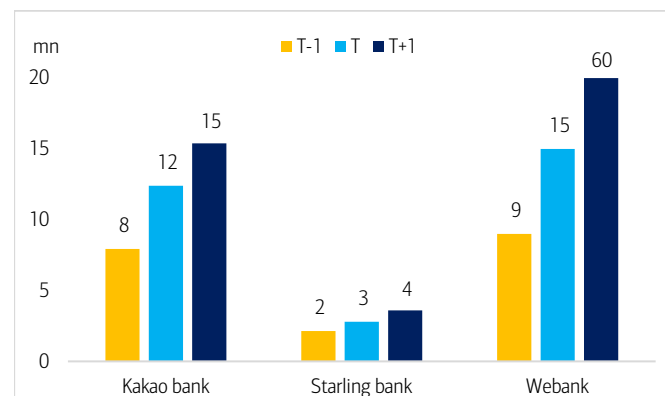


Source: Banks, Kiatnakin Phatra Securities

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Exhibit 20: Virtual banks – No. of accounts at first profitable year (T)

The lowest number of accounts at the first profitable year was around 3mn



Source: Banks, Kiatnakin Phatra Securities

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Neutral	≥ 0%	≤ 30%
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