

# Asia-Pacific Research Exchange Business Model Investment Series

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## **Red Ocean: a glimpse of Banking and FinTech**

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### **Abstract**

This article gives an overview of several FinTech trends in the banking industry. It touches on Virtual Bank, M&A Strategy, and Blockchain application in the industry.

Keywords: FinTech, Banking, Business Model, Innovation, Technology

## Traditional Banks vs. Virtual Banks

FinTech is imprinted in the blueprint of the banks to improve both customer experience and operating efficiency.

In this article, we define Traditional Banks to be those players who operate online and offline, with a stronger physical presence. Virtual Banks are defined to be the neobanks or digital banks that operate virtually, with a limited physical presence like client-facing front desks. Traditional Banks and Virtual Banks share a similar business model, differentiating in their cost structure such as in the strategy of customer acquisitions and their product offerings. We noticed Virtual Banks have utilised FinTech to compete with the long-established players.

The simplest business model of banks is to generate revenue from the looping of their capital: earning the interest margin between customer deposit and bank loan. The more sustainable the inflow and outflow, the better for banks.

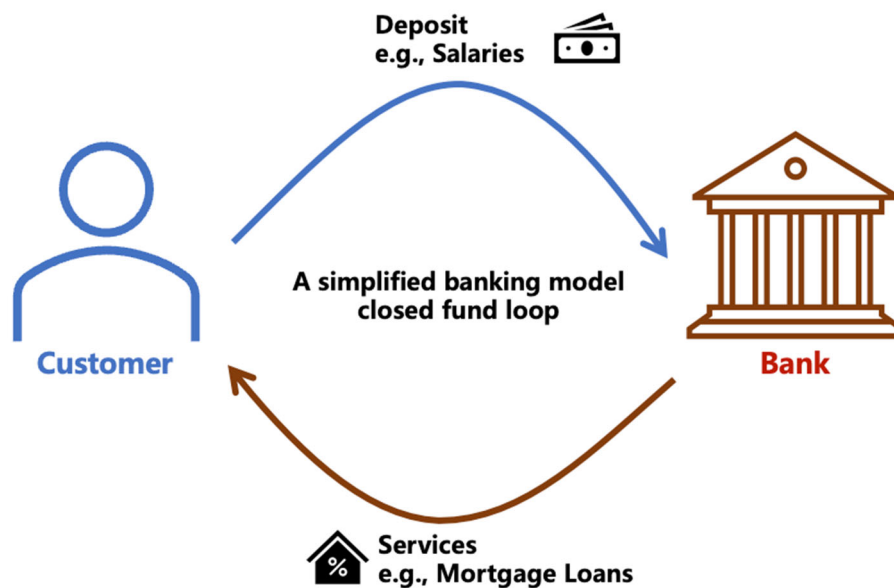


Figure 1: A simplified banking model closed fund loop <sup>[1]</sup>

While Traditional Banks leverage on FinTech to improve operating efficiency (internal) and user experience (external), Virtual Banks employ FinTech as a strategic competitive strategy, highly integrating FinTech into its business model to distinguish its service and product from competitors.

We provide a 2-dimensional framework (below) to understand how FinTech empowers the banking industry and where FinTech plays a key role along the value chain. The extensive spectrum helps locate where FinTech steps in along the operation chain of the bank. For example, it allows integrating data visualisation for better business analytics, providing an online banking option for the clients. For example, FinTech provides frictionless and satisfying user experience [2] by allowing rapid account opening, fee transparency, and instant notification and reminders in the customer onboarding journey. Frictionless user experience strengthens customer relationships and thus is critical for banks' topline.

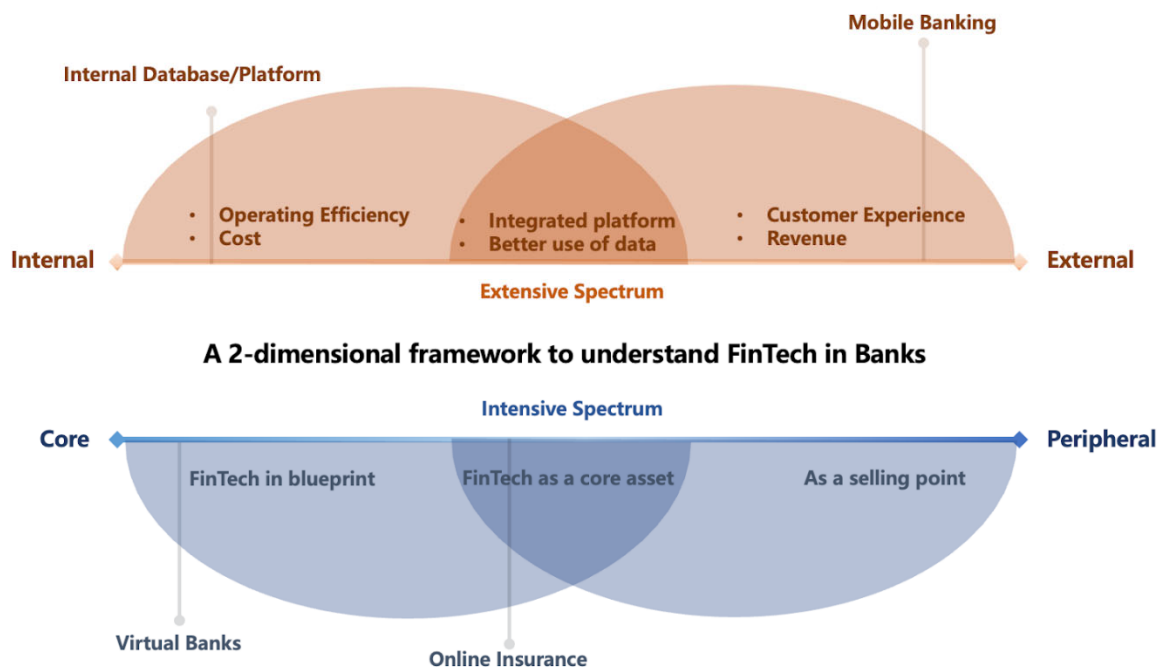


Figure 2: A dimensional framework to understand FinTech in Banks

Banks emphasis on the integration of banking mobile apps during their interaction with clients. As documented in the EY Global Consumer Banking Survey, key insight from the survey sheds light on the importance of integration for banking mobile apps – 80% of Hong Kong millennials prefer a single app to manage their everyday online engagements.

One such example would be HSBC, as one of the large banks in HK, rolls out and tests new mobile app features. In 2022, there were around 200 new features released on the app. The banking app enables a personalised banking experience in an economically efficient way, improving customer value. The “Budget” tool of HSBC HK’s mobile app is an example of a Personal

Financial Management (PFM) tool, where customers could receive recommendations on setting budgets and tracking their spending habits <sup>[3]</sup>.

Another example is BOC Pay, an app owned by the Bank of China. The mobile app allows their customers to benefit from being able to respond rapidly to volatile market movement as well as supporting incremental cross-border transactions after the Hong Kong and mainland China border reopening.

On the other hand, FinTech is important to Virtual Banks Strategy. According to EY's survey, consumers have high expectations and demand seamless integration of financial services from Virtual Bank <sup>[4]</sup>. In fact, the key differentiators for Virtual Banks to individual customers are the lower fee and better deals for deposits. Virtual banks operate mostly online, allowing for lower costs of physical operation and manpower relative to the traditional banks' counterparts.

A Visa survey <sup>[5]</sup> in July 2021 found that the top reasons for customers to open an account at a virtual bank are higher saving interest rates (55%) and attractive account opening rewards (58%). For example, recent reward deals for account opening range from HKD 500 to HKD 1,000 upon finishing simple tasks have proven to be exceptionally effective during new customer acquisitions.

To compete with traditional banks, the major Virtual Bank players are empowering their platforms through FinTech. Virtual Banks face the key hurdles of building a sustainable fund inflow and outflow loop. Virtual Banks acquire new customers at a high cost, expecting a sustainable lifetime inflow of funds (e.g. salaries).

However, Virtual Banks customers' stickiness may not be high enough to close the lifetime inflow and outflow loop since there is almost no cost for customers to pursue better offers from other banks. On the other hand, it may be challenging for Virtual Banks to convert an individual customer to switch from their primary bank account (the recipient account of salaries, therefore a major, sustainable capital inflow for banks) to a virtual one. Indeed, though half of the respondents have an account in virtual banks, only 20% indicated an interest in using the Virtual Bank as their main bank account, according to a consumer perception survey conducted by Visa.

In the light of more demanding customers' expectations and fierce competition, some banks outsource their payment processing to other banks or FinTech platforms. This process is known as Banking as a Service (BaaS).

BaaS is not a new concept as banks deploy their regulatory and technology assets to provide regulated financial services for third parties to deliver to their own customers in turn. 22% of Tier 2 and tier 3 banks in Europe consider consuming payment processing services from another bank. Indeed, it is very common in Europe for Tier 1 banks to be working with third parties for their payment processing, and almost half of Tier 2 and 3 banks in Europe to prefer to collaborate with a third party to use a vendor payment, including SaaS / PaaS offering to support their real-time payment infrastructure. Recent examples are as below:

- 1) CaixaBank, for example, is a Spain institution leveraging on Google Cloud's cloud computing, data analytics, and artificial intelligence (AI) capabilities to develop new services for its customers and drive the organisation's digital transformation.
- 2) XYB, a European banking platform unveiled by Monese, has set up an extensive ecosystem of partners, including banks, non-banks, technology providers, as well as service providers. This transformative network enables XYB to provide managed services for critical functions like onboarding, risk management, compliance, and customer support, XYB thereby distinguishes itself from traditional core banking systems, while KYC remains a problem by far.
- 3) VISA is setting up a crypto protocol team. The team is currently looking at ways to possibly abstract gas fees for users and enable users to pay transaction fees using ERC-20 tokens instead of the blockchain's native cryptocurrency. As blockchain technology has been getting matured, VISA is also thinking about involving it as a different user case.
- 4) Italy's second-largest bank UniCredit ([CRDI.MI](#)) said it had entered into an enlarged payments partnership with Mastercard, and this was the first time a large commercial bank has put in place a single-card multi-market strategy of this scale in Europe

We have also seen cross-industry partnership, particularly in the insurer-bank partnership. One great example is the collaboration between Generali and ZA Bank wherein the two companies entered into a digital bancassurance partnership in 2022 [7]. This bancassurance is in line with the 'Lifetime Partner 24: Driving Growth' strategy of Generali to become a data-driven innovator, where Generali is committed to invest in digital technology that will total USD1.18bn. Life insurance products issued by Generali Hong Kong will be offered on the ZA Bank App, providing holistic and innovative protection that cover different stages of a customer's life. The first phase of the launch includes five Life products covering: critical illness, savings,

retirement, Qualifying Deferred Annuity Policy, and life protection with return of premium.

In light of the above, banks tackle the operational challenge either through acquiring necessary technology or partnering with vendors, turning payment into a revenue-led business process rather than a cost centre.

### **Implementation: FinTech M&A and Partnership**

After experiencing the impact of Fintech through collaboration with 3<sup>rd</sup> party vendors, many banks are actively seeking opportunities to develop and acquire these technologies. External sources, such as M&A and partnerships, are crucial for banks to implement FinTech in their digital transformation.

Abundant FinTech targets around the globe are available for banks as acquisition targets due to the booming of FinTech startups in the last few years. Additionally, recent events in the banking sector have made it harder for FinTech companies to raise capital, which has led to M&A being adopted as part of their growth strategy <sup>[7]</sup>.

As expected, in-house FinTech developments of banks are challenging as it is traditionally considered a cost centre. Buy-rather-than-build is thus the dominant strategy in the sector, and FinTech is poised for a surge in M&A deals and partnership activities.

In the past decade, FinTech has dramatically influenced the products and services of banks through M&A and partnership. However, due to their complexity and offline nature, fewer deals or collaboration are made in investment banking and other specialised banking services. Nevertheless, with the exponentially increasing influence of AI, some legal tech companies are exploring their role in labour-intensive jobs such as legal due diligence <sup>[8]</sup>.

Compared to other options, M&A ensures an exclusive relationship between the bank and the FinTech company, which is difficult to achieve through other collaborative frameworks. Furthermore, it offers data and security protection advantages, ensuring that third parties do not handle confidential information. <sup>[9]</sup>

A successful FinTech M&A requires a clear strategy from the outset. Acquirers should consider how various FinTech companies can add value to their financial products or services. For example, can they help access a new sector, improve the quality of existing products, or effectively reduce operational costs or risks. The J.P. Morgan's technology investment principle is an example of a standard that reflects these considerations, and their recent transactions demonstrate it effectively.



Figure 3: J. P. Morgan's Technology Strategic Investment Principles<sup>[10]</sup>

Other major banks have also made acquisitions of fintech companies in a similar fashion to that of J.P. Morgan.

- Bank of America for instance acquired Axia Technologies, a California-based fintech startup focused on secure patient payments, to expand its capabilities in payment and settlement solutions to healthcare clients and their patients.
- UBS acquired Wealthfront, an industry-leading, automated wealth management provider serving the next generation of investors, aiming at delivering digital wealth management offering to millennial and Gen Z affluent investors.
- Goldman Sachs acquired GreenSky, a Buy now pay later service focused on home improvement, healthcare, and retail, to augment its retail lending footprint.

These deals helped the banks to better reach out and engage their target retail clients. It also releases their anxiety from losing strategic track under the wave of Fintech evolution.

From June 2021 till now, six FinTech acquisitions were announced or completed by J.P.Morgan, accounting for around half of all the acquisitions made by J.P.Morgan in the same period.

<b>Date</b>	<b>Event Type</b>	<b>Event Name</b>	<b>Product Offered</b>	<b>Sector</b>
02-May-2023	Significant M&A - Completed	JPMorgan Chase & Co acquires Aumni Inc	AI boosted private capital market investment analytical tool	Capital Market
12-Sep-2022	Significant M&A - Announced	JPMorgan Chase & Co acquires Renovite Tech Inc	Cloud-native payment service	Payment
11-Aug-2022	Significant M&A - Completed	JPMorgan Chase & Co acquires Global Shares PLC	ESOP management software	Capital Market
04-Feb-2022	Stake Purchases - Completed	JPMorgan Chase & Co acquires 40% stake in Banco C6 SA	Digital Banking	Consumer Banking
05-Aug-2021	Significant M&A - Completed	JPMorgan Chase & Co acquires OpenInvest Co	Sustainable investment service	Capital Market
17-Jun-2021	Significant M&A - Announced	JPMorgan Chase & Co acquires Nutmeg Saving & Investment Ltd	Online investment management	Investment Platform

Figure 4: FinTech Acquisitions completed by J.P. Morgan between 1<sup>st</sup> June 2023 and 1<sup>st</sup> June 2021. Source: Refinitiv.



From the perspective of the FinTech company, they also consider how their platform can create synergy by leveraging on the bank’s brand and customer bases to help the company scale up its business.

It is essential to consider the process involved to understand what else is critical to a successful FinTech M&A. A friendly FinTech acquisition typically involves five major stages: planning, searching, negotiation, closing, and post-closing integration.

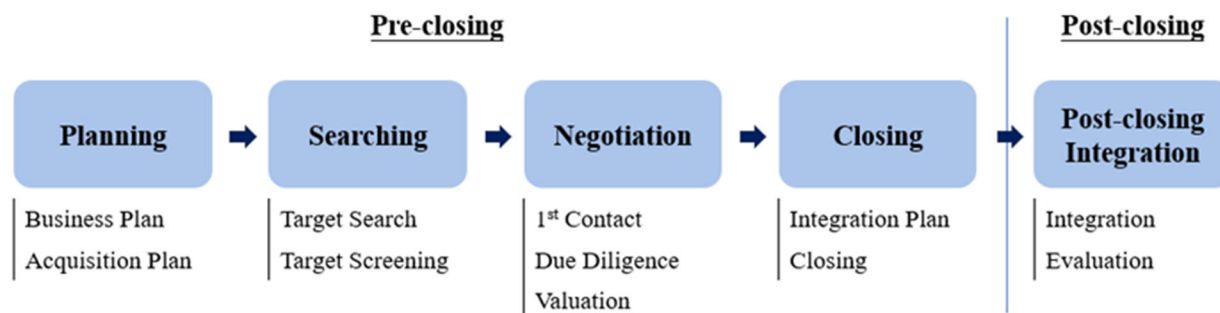


Figure 5: Flow chart of a friendly FinTech acquisition processes.

Like other transactions in the technology sector, integration is a critical element for any FinTech M&A. Successful integration can help the bank retain key personnel and realise full technology-enabled synergy. Additionally, PwC has emphasised that post-merger integration for FinTech companies should prioritise compliance, accountability, and governance [11]. Below is a list of key integration items for M&A activities in the FinTech sector.

	Pre-closing Integration Planning Items	Post-closing Integration Items
<b>General Important Items</b>	<ul style="list-style-type: none"> <li>➤ Contract-related transition issues</li> <li>➤ Establish a post-closing communication strategy</li> <li>➤ Tax considerations</li> </ul>	<ul style="list-style-type: none"> <li>➤ Implement the communication plan</li> <li>➤ Compensation plan</li> <li>➤ Satisfying cash flow requirements</li> <li>➤ Employing best practices</li> <li>➤ Retaining key customers</li> </ul>
<b>Highlighted Items for Tech Companies</b>	<ul style="list-style-type: none"> <li>➤ Plan to realize technology-enabled synergy</li> <li>➤ Anti-trust/competition considerations</li> </ul>	<ul style="list-style-type: none"> <li>➤ Key personnel retention</li> <li>➤ IT migration plan</li> <li>➤ Culture integration</li> </ul>
<b>Highlighted Items for Fintech Companies</b>	<ul style="list-style-type: none"> <li>➤ Compliance, accountability, and governance considerations.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Post-closing governance</li> </ul>

Figure 6: Key integration items during FinTech acquisitions

In summary, M&A effectively creates an exclusive relationship between a bank and a FinTech company, which can eliminate concerns and facilitate deep integration to realize synergy. Strategic planning and integration are critical elements for FinTech transactions, and it is worth putting in the effort to ensure a successful outcome.

### **Virtual Assets**

Blockchain technology can revamp the business processes in financial services, particularly in areas like trade finance, clearing, settlement, and during the reconciliation of financial transactions. For instance, in June 2023, JPMorgan Chase & Co. partnered with Indian banks to settle interbank dollar transactions using blockchain technology, reducing the settlement time that takes a few hours under the existing settlement system <sup>[12]</sup>.

The real-time blockchain-backed system allows transactions on a 24x7 basis. Using blockchain technology, banks also revolutionise conventional trade finance and reduce the risk involved in cross-border trade. Recently, Citi India completed its first blockchain-enabled Letter of Credit (LC) transaction recently <sup>[13]</sup>. In 2019, HSBC China utilised blockchain technology to complete a Letter of Credit (“LC”) blockchain transaction by issuing a digitised Letter of Credit (LC) on behalf of the importer and exporter on a blockchain network <sup>[14]</sup>.

Tokenizing Real World Assets (RWAs), such as real estate, is another usage of blockchain technology <sup>[15]</sup>. Illiquid assets can be fractionalized on-chain, enabling fractional ownership - which would expand the range of investors that can tap certain markets, and subsequently increase the liquidity of the particular asset class.

When we talk about RWAs, we usually mean the integration of using on-chain databases to track the assets, with the performance and valuation coming from outside the blockchain. While the token is on a blockchain, the assets and payments are in the real world. These RWA tokens, like all cryptographic tokens, are programmable, so we can encode lockup periods, and accredited investor requirements.

In November 2022, HSBC announced the launch of its tokenization platform to allow the issuance of digital bonds using blockchain technology. In the same year, Goldman Sachs launched a tokenization platform to enable the issuance, registration, settlement, and custody of tokenized digital assets. In HK, BOCI, the wholly owned investment bank of Bank of China, has successfully issued CNH 200 million fully digital structured notes with UBS,

making it the first Chinese financial institution to issue a tokenised security in Hong Kong. This transaction marks the first product of its kind in Asia Pacific constituted under Hong Kong and Swiss law and tokenized on the main Ethereum blockchain, successfully introducing regulated securities onto a public blockchain.<sup>[16]</sup>

Finally, CBDC is a new form of central bank money accessible to the public, accepted as a means of payment, is legal tender, and can serve as a safe store of value by all individuals, businesses, and government agencies. There are many motivations behind the issuance of CBDCs: They can replace physical notes; they can be used to improve financial stability as a monetary policy tool, to promote financial inclusion, to fight against financial crimes, improve payment efficiency and reduce intermediary risks.

In May 2023, HKMA kick-started its electronic Hong Kong dollar (e-HKD) pilot program to test the digital currency. In total, 16 banks and payment companies will select small groups of their clients to test out six potential use cases for the e-HKD online payments. According to a statement by HKMA, these six potential use cases include payments in shops and restaurants, collecting government payouts, tokenized deposits, tokenized asset settlement, Web3 related trading and the associated clearing.

The program is a key component paving the way for the implementation of a Hong Kong retail central bank digital currency (CBDC), i.e., e-HKD, in the future program. The e-HKD will be an electronic version of a bank note, and the mechanism of issuing e-HKD will be the same as that for physical bank notes under the currency peg system, without affecting the monetary base. The existing Hong Kong dollar peg with the US dollar will remain in place.

One of the benefits of eHKD is that it can provide additional protection to customers, especially those making prepayments via a feature known as programmable payment. The programmable payment feature enables specific rules to be encrypted into the digital currency to restrict the usage of the money <sup>[17]</sup>.

During an announcement by HKMA in June 2012 citing their FinTech 2025 strategy, the strengthening of its research work to increase Hong Kong's readiness in issuing CBDCs at both the wholesale and retail levels <sup>[18]</sup> has been escalated to become one of its strategic pillars. Globally, nine out of 10 central banks are exploring central bank digital currencies (CBDCs), and more than half are now developing them or running concrete experiments, according to the 2021 BIS survey on central bank digital currencies.

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