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# 2023 Top 10 Asia Pacific FinTech Trends

The key trends and issues that  
will shape the discussion in  
2023

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A report from Kapronasia

February, 2023





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## Methodology

The 2023 Top 10 Asia Pacific FinTech Trends report was based on a combination of secondary and primary research. Secondary research consisted of existing and new datasets from Kapronasia's databases as well as various reports, news articles, and commentaries in the media. Primary research included discussions with various market participants including banks and payment providers.



## Introduction

As we embark on our 13th annual Top 10 Fintech Trends in Asia report, it is worthwhile reflecting on the journey that has brought us here.

When we first started producing these reports, writing an introduction was a straightforward task. China was growing, Southeast Asia's significance was on the rise, and Australia, well, you could be sure there was an inquiry or a commission on something around banking and payments happening there.

But 2020 changed everything. The pandemic literally rewrote the script on that narrative. For two years, the future of the financial industry was anything but clear. In 2021, mid-way through the pandemic, we approached our annual trends report with 'cautious optimism.' We believed that somehow, the industry would find its way.

And largely, it has. Although valuations are down and layoffs have been significant, employment remains higher than pre-pandemic levels, and valuations are close to what they were three years ago. According to some economists, we may indeed make it through the next few years without a major global recession.

One silver lining of the current market conditions is the return of sanity and rationality. One of my favorite quotes from 2022 was in our [FinTech in Growth Markets report](#) that we published in late 2022: "In a low interest rate environment, all manner of sins were committed."

We take a balanced approach to our work, always striving to be honest and upfront about the industry. While some may have questioned our stance on crypto, digital banks, or BNPL business models in the past, we have stuck to our guns and called it as we see it.

This approach is certainly nothing that is taught in sales books. In 2018-2021, questioning crypto, digital banks, or BNPL business models, was not a very popular position with many clients. Yet, here we are. Australia's digital bank experiment is pretty much over. Crypto may be regulated to the side-lines, especially as government digital money grows. Rewards programs have been devalued to the point of irrelevance.

Are there good ideas out there? Of course. There are some amazing companies in Singapore and indeed across the region that will, without hyperbole, change the world. If anything, the 'normal normal' we are now in will allow the industry to re-focus on what matters and the business models to get us there.

So it is with renewed optimism that we bring you our 13<sup>th</sup> annual Top-10 Asia Pacific Fintech industry trends report looking at ten key developments that we feel will impact the industry going forward.

As always, we wish you a safe and healthy year and hope you enjoy reading the trends as much as we enjoyed researching them.

Zennon Kapron  
Director, Kapronasia

## Open Banking and the Growing Importance of Ecosystems

*Open Banking has great potential both for banks and the region, however in order to maximize the benefits the former are going to have to overcome both their technological legacy and their business model legacy, and appreciate that it is possible to be just a component part in other parties' value chains.*

### Open Banking in APAC

Open Banking is the use of application programming interfaces (APIs) to streamline the sharing of customer bank data with third parties which are typically tech start-ups or online financial service vendors. While that is the premise of all Open Banking, there are different “flavors” of it that can be observed across Asia-Pacific (APAC). At a high-level, these can be roughly parceled into those that are market-led and those that are regulator-led.

Southeast Asia, which was one of the last regions to jump on the Open Banking bandwagon, is, for example, market-led. Here, the core driver has been demand from customers. Subsequently, that has led to more and more banks within APAC to become API-ready. Regulators in the region have been rushing to catch up. They have, however, by and large, taken a light touch approach and not mandated banks to implement Open Banking. By contrast, regulator-led jurisdictions such as Australia's are those where there is a legal obligation for banks to link to third-party providers.

### The Open Banking and Ecosystem Promise

In an era where time to market is paramount and in-house development costs are high, banks now have the option of integrating white-labeled innovative fintech products and services directly into their own core offerings. Such a “plug-and-play” model does away with the traditional integrated banking model, based on operational scale and a broad deployment of one-size-fits-all products developed in-house and provides agility and personalization, enabling banks to respond quickly to changing expectations and evolve offerings to make them relevant.

Another issue facing traditional banks are their high costs both to acquire and then to serve their customers. Conducting KYC checks and maintaining a network of brick-and-mortar branches as a distribution channel for products and services is expensive. With upward pressure on operational costs only increasing, traditional banks' margins are being squeezed.

Open Banking's architecture can help here too. By adopting a Banking-as-a-Service (BaaS) model, banks can lease their infrastructure over the internet, on-demand to fintechs, challenger banks, and other third parties. These connect with the bank's systems directly via APIs and build banking offerings on top of the incumbent's regulated infrastructure. Such a model provides banks with diversification into new business verticals and products; access to a larger customer base via partners; reduced cost of distribution of their core products and services; and access to new revenue pools and monetization opportunities.

Alternative distribution channels do not just have to come from non-bank financial service providers either. A bank's financial products can be intertwined with non-financial products and services as well. An arrangement known as embedded finance. Distribution costs are slashed and given the scale of some of these platforms' user bases, embedded finance can turn profitable quickly.

### Greater Financial Inclusion

Being able to cut costs via these alternative distribution channels also lowers the threshold of who banks can serve. That is important in a region where more than 70% of Southeast Asia's adult population is either “underbanked” or “unbanked,” with limited access to financial services.<sup>1</sup> In addition, millions of Southeast Asia's small and midsize enterprises face large funding gaps. Banks relying on traditional distribution models have simply found it too expensive to serve poor and remote communities across the region. The cost of processing a financial product, and the cost of customer acquisition, is just too high.

<sup>1</sup> Google, Temasek, Bain & Company, “Fulfilling Its Promise: The future of Southeast Asia's digital financial services,” October 2019, <https://www.bain.com/globalassets/noindex/2019/bain-report-fulfilling-its-promise.pdf>

As Open Banking only involves banking data, the unbanked are left out. However, banks only represent a small part of the financial ecosystem. A vast amount of financial data lies outside of the banking system. Enter Open Finance, the extension of Open Banking that allows the exchange of a much broader range of consumer financial data, creating a more holistic and accurate assessment of an individual's digital financial footprint.

With Open Finance, this financial data is accessible, enabling financial institutions to form a picture of an individual's financial identity. Open Finance allows banks to, for example, partner with third-party providers such as online marketplaces to gain access to alternative data, such as ecommerce transaction data, to assess the credit risk of previously underserved customers. It also allows banks to partner with third parties for eKYC, lowering the cost of customer acquisition and onboarding, thus expanding access.

### **The Future of Open Banking in APAC**

In market-led regions such as APAC's, Open Banking innovations will continue to be consumer driven and the winners will be those who craft a product offering according to consumers' needs and proactively look to be part of third-party ecosystems or build one themselves that will enable them to serve their customers cost-effectively with the right product, in the right place, at the right time.

In addition, the extent of proliferation of Open Banking will be determined by the local context, especially in APAC, where the proportion of banked and unbanked populations can vary considerably across countries. On one end of the spectrum, the banked population in Australia for example, equates to around 99% while in the Philippines it is close to 50%.<sup>2</sup> This variation will affect how consumers currently interact with financial institutions and non-bank solution providers.

<sup>2</sup> World Bank Findex

However, whichever the case, what is clear is that banks will be challenged in some shape or form. The question then becomes by how much, how fast, and in which market segments. Digital banks are well positioned, given their more agile technology infrastructure. That being said, they are facing increasing competition in a crowded market and facing a tumultuous macroeconomic environment. For digital banks in 2023, collaboration will be the key while also refocusing on core services as well as services that banks want to unbundle. This could be serving the underserved/underbanked market, including those in hard-to-reach areas such as rural communities.

Incumbent banks are open to such collaboration and are adopting partnership-led approaches to reach customers in new ways and take advantage of the relative strengths of different participants. The Australian bank Westpac, for instance, is set to enable pay-later provider Afterpay to offer its customers transaction and savings account services via Westpac.

However, too many banks in APAC are still too focused on branch banking. That is, a full stack banking business model versus a platform banking model where they are providing the core compliance layer and infrastructure while allowing third parties to build on top of that banking structure that they are so good at.

The winners, therefore, will be those banks that are not only able to overcome their technological legacy with new, API-based architecture but those who can overcome their business model legacy, which will require a mindset change. There is a realization among some that banks no longer need to have a central role in the value chain. It is possible to be just a component part in other parties' value chains.



# The Rise of Atomic Settlement For Cross-Border Payments

*The current cross-border payment system is inefficient, costly, and opaque. It is ripe for an overhaul. Atomic settlement enabling faster and cheaper transactions could hold the key. There are however a number of obstacles still to be overcome before the hype matches reality.*

## Current Cross-border Payment Arrangements Are Inefficient

The development of real-time payment systems such as Paynow, Duitnow, Promptpay, and UPI in Singapore, Malaysia, Thailand, and India respectively has made real-time domestic payments between individuals a near seamless process. However, while there are a number of ongoing bilateral arrangements to link domestic retail real-time payment systems for cross-border payments, starting with the Singapore PayNow and Thailand PromptPay linkage launched in April 2021, cross-border payments are still mired in inefficiency.

That is because cross-border payments are still based on a system developed in 15th century Europe which is clearly not fit for today's digital age. That system involves a complicated network of correspondent banks in different jurisdictions operating on mutual trust. That means that while cross-border retail payments executed in real-time appear to happen instantaneously, the actual movement of funds between banks (settlement) is not performed in real-time.

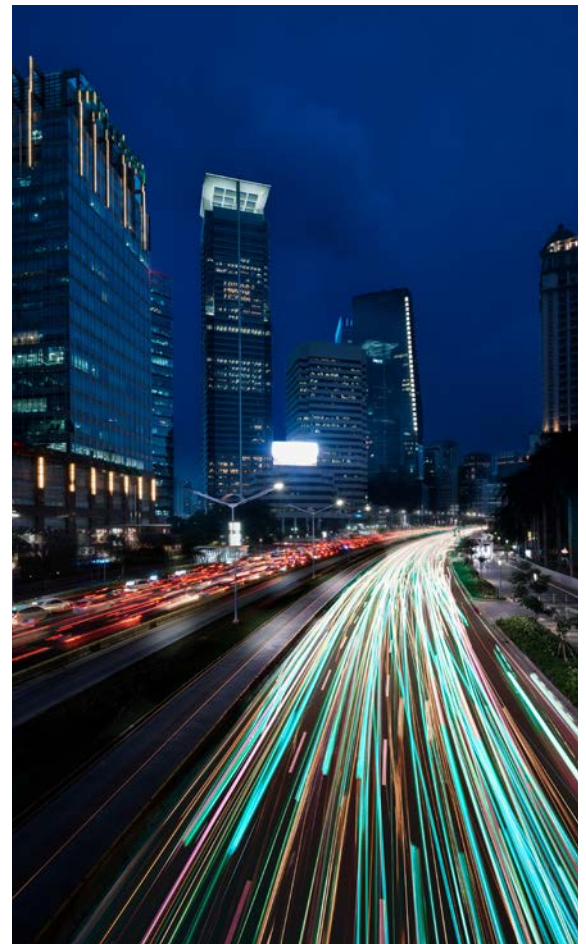
Instead, the movement of such funds relies upon a so-called sequential model whereby the flow of funds passes through various intermediaries before a settlement is treated as final. The problem with this method is that it is slow, taking up to three days, costly, as each intermediary takes their cut of the transaction, requires manual intervention to supervise, and gives rise to what is known as settlement risk, whereby one party does not fulfill its obligation to its counterparty.

There have been various attempts over the years to tackle the settlement risk issue. This includes the introduction of so-called nostro/vostro accounts, whereby the correspondent

bank holds deposits on behalf of their partner bank that is transferring the funds. The correspondent bank will pay out of the deposits that they are holding on behalf of their partner bank (prefunding) before the actual settlement takes place. While this arrangement helps to reduce settlement risk, it does introduce trade-offs including tied capital, opportunity cost, operational inefficiency, and credit risks.<sup>3</sup>

## The Promise of Atomic Settlements

Innovation in wholesale cross-border payments has therefore left much to be desired when compared to that in domestic payments. What is needed are faster transaction speeds, reduced costs, and increased transparency and security. That has given rise to the notion of atomic settlement, which refers to exchanging assets between two parties in a single transaction, typically instantaneously and often without intermediaries. This can be particularly useful in cross-border payments, as it allows for faster and cheaper transactions.



<sup>3</sup> Arf, "What Is Prefunding and How Does It Work?" Sept 2021, <https://arfone.com/insights/what-is-prefunding-and-how-does-it-work/>

There are currently a number of projects underway worldwide that are experimenting with atomic settlement as a means to improve settlement efficiency and address the current pain points around cross-border payments. In Asia specifically, the Monetary Authority of Singapore, MAS, launched Ubin+ in November 2022 on the back of the success of Project Ubin which ran from 2016 to 2020 and explored the use of atomic settlement through tokenized assets that can be exchanged simultaneously on a distributed ledger or blockchain. Ubin+ will look into how atomic settlement based on digital currencies can improve efficiencies and reduce settlement risks compared to existing payment and settlement rails.<sup>4</sup>

Ubin+ builds on the foundation started with Project Ubin and learnings from MAS' participation in Project Dunbar. The latter, a collaboration between the Bank for International Settlements (BIS) Innovation Hub, the Reserve Bank of Australia, Bank Negara Malaysia, the Monetary Authority of Singapore, and the South African Reserve Bank, proved that financial institutions could use central bank digital currencies (CBDCs) issued by participating central banks to transact directly with each other on a shared platform.<sup>5</sup>

Singapore-based Partior is another initiative that is also worth highlighting. A joint venture between DBS Bank, JP Morgan, and Temasek, Partior is focused on developing atomic settlement solutions for cross-border payments. One of the company's main offerings is "Atom," designed to facilitate the atomic settlement of transactions between banks and other financial institutions. Atom uses blockchain technology and smart contracts to enable the rapid exchange of assets between parties without the need for intermediaries.<sup>6</sup>

Outside of Singapore, other central banks in Asia are also conducting their own projects with the 'atomic' settlement agenda in mind. Project Inthanon in Thailand is a collaborative

effort initiated by the Bank of Thailand (BOT), together with eight commercial banks focusing on developing and testing a distributed ledger technology (DLT)-based, real-time gross settlement system (RTGS) by issuing wholesale CBDCs.<sup>7</sup>

## The Future

Over the past few years, due to intense competition, cross-border payments have become better, faster, and cheaper for both retail and business. However, there is more to be done. At the Singapore FinTech Festival 2022, MAS' managing director Ravi Menon said, "for most people, it [cross-border payments] remains slow, costly, opaque, and inefficient, relying on an archaic network of correspondent banks." He also noted that the global average cost of sending remittances was a hefty 6% of the transfer value.<sup>8</sup>

Clearly then there is a lot of room for improvement and atomic settlement could hold the key. While still in its early stages of adoption in Asia, there has been significant progress in recent years. Many companies and financial institutions in the region are exploring the use of atomic settlement for various payment systems and platforms, with a focus on improving the speed, security, and efficiency of financial transactions.

Despite the progress being made, there are still several challenges to widespread adoption of atomic settlement in Asia, such as regulatory hurdles, the need for greater interoperability between different payment platforms, and the need for better infrastructure to support large-scale deployment. However, as the technology continues to mature and more use cases emerge, it is expected that atomic settlement will play a growing role in the payments landscape in Asia. Atomic settlement will therefore be a crucial part of the story in 2023, and continued private, and public focus on this space will undoubtedly be high. Yet, the question if reality will match the hype remains to be seen.

4 Fintechnews Singapore, "MAS Launches Project Ubin+," Nov 2022, <https://fintechnews.sg/66175/blockchain/mas-launches-project-ubin/>

5 Fintechnews Singapore, "BIS Develops Multi-CBDC Platform for International Settlements With Central Banks," March 2022, <https://fintechnews.sg/59962/blockchain/bis-develops-multi-cbdc-platform-for-international-settlements-with-central-banks/>

6 Zennon Kapron, Forbes, "The Future Of Cross-Border Payments In Asia Is Atomic," Dec 2022, <https://www.forbes.com/sites/zennonkapron/2022/12/21/the-future-of-cross-border-payments-in-asia-is-atomic/?sh=34007f5813a7>

7 <https://www.adb.org/sites/default/files/publication/535851/adbi-wp1030.pdf>

8 Eileen Yu, ZDNET, "Singapore to pursue cross-border digital currency potential," Nov 2022, <https://www.zdnet.com/finance/banking/singapore-to-pursue-cross-border-digital-currency-potential/>



## The Repercussions of the FTX Implosion for Crypto in Asia

*The swift and damaging collapse of FTX, a cryptocurrency exchange, in late 2022 will have far-reaching knock-on effects in the Asia-Pacific region, home to some of the world's most avid crypto investors both institutional and retail.*

At the peak of the era of loose monetary policy and quantitative easing, when the market was pumped with liquidity, the possibilities for cryptocurrencies (crypto) and the underlying blockchain technology seemed endless. They were going to change the world. The end of centralized control and financial intermediaries charging exorbitant fees was near.

Crypto was touted as a solution to a raft of issues. It was suggested as a replacement for fiat in many impoverished countries where the government-issued currency was prone to large scale inflation and erosion of value. In a similar vein, proponents argued that crypto was the digital equivalent of gold, which is often seen as a safe haven asset and store of value during periods of high inflation or economic turmoil. It was also meant to be a tool for financial inclusion. Those who were unable or disincentivized to open a bank account would be able to use crypto to circumvent centralized gatekeepers such as banks.

Yet there were also detractors. The volatile nature of crypto as well as its association with anonymity and nefarious activity had some investors and especially regulators taking an 'arms-length' and 'wait and see' approach towards these digital assets. In Asia, the stance adopted by regulators has been mixed. Singapore and Hong Kong, for example, have positioned themselves as crypto hubs, although the former has increasingly tried to separate crypto from the underlying blockchain technology, with Ravi Menon, managing director of the Monetary Authority of Singapore (MAS) saying that Singapore wants to be a crypto assets hub, but not one that centers on the trading and speculating of cryptocurrencies.<sup>9</sup>

Chinese and Indian regulators on the other hand are among the most skeptical in the region. India, for example, has imposed a 30% tax on income from digital assets, while China has banned all cryptocurrency transactions.

### Euphoria or Value?

A blockchain is a distributed database or ledger which contains information about transactions or events which is shared among the nodes of a computer network. The development of blockchain technology has led to innovations such as the tokenization of assets and smart contracts which have use cases beyond financial markets.

<sup>9</sup> Kelly Ng, The Business Times, "Singapore's crypto hub ambitions do not involve trading, speculating in cryptos: Ravi Menon," Nov 2022, <https://www.business-times.com.sg/companies-markets/banking-finance/singapore-fintech-festival-2022/singapores-crypto-hub-ambitions>



With the promise of the underlying technology, it was no surprise that cryptocurrencies, the native asset of a specific blockchain protocol, were thought to possess tremendous value, leading to an increase in their price. Most notably, the grandfather of all crypto, Bitcoin, rose from as low as US\$0.40 in 2010 to its highest level of US\$68,789 in November 2021.<sup>10</sup>

As interest from institutions and governments grew (El Salvador adopted Bitcoin as legal tender) many other so called 'altcoins' arose, along with crypto hedge funds such as Three Arrows Capital (3AC), crypto exchanges like Binance, Crypto.com, and FTX, and crypto borrowing and lending platforms like Celsius.

Euphoria was high and at its peak owners of cryptocurrencies chose to deposit coins with entities such as the now defunct Celsius to obtain up to 15-20 percent return on their digital asset deposits.<sup>11</sup> Yet, crypto prices have plunged in the last year, slashing the overall market capitalization from US\$2.2 trillion to around US\$830 billion. In contrast, gold has dipped by only 3% to around US\$1,765 per ounce.

The decline in value correlated with the collapse of the stablecoin Terra and sister token Luna, which sparked massive contagion and selloff across the crypto industry. A crypto run ensued as panicked investors sought to pull their coins from exchanges, crypto hedge funds (3AC), and high interest-bearing platforms such as Celsius. Just when the situation was seemingly stabilizing, there was a massive selloff of FTT (a token issued by FTX) following a report by CoinDesk highlighting potential leverage and solvency concerns involving FTX-affiliated trading firm Alameda Research. Only a few days later, the exchange collapsed.

### **The Immediate Implications of FTX's Implosion**

The sudden collapse of what was once the world's second-largest crypto exchange by trading volume will have far-reaching knock-on effects in Asia-Pacific, home to some of the world's most avid crypto investors both institutional and retail. Research by crypto payments gateway firm Triple A, finds that of the 420 million owners of crypto globally, 170 million are in Asia.<sup>12</sup>

Additionally, for big name investors such as Sequoia Capital and Temasek, it will call for a rethinking of their internal processes and procedures when it comes to investing in this space. Sure, the potential for tremendous upside is present, but such institutions should be careful about empowering anyone (including anonymous founders) making obscure claims about "innovation" and utopian visions of a future while funding them with cheap cash.

Investors need to fall back on first principles. Most definitely for now, they will be looking to assess the extent of contagion from FTX on their portfolios. Additionally, there will be a bid to restore their reputation as behemoths and stalwarts of investing and avoid being compared in a similar vein to the likes of Softbank.

### **Where Crypto Goes From Here**

Certainly, there will be a re-think and closer examination of crypto's role in the financial industry. For regulators that have imposed strict regulations such as India and China, such a scenario serves as further vindication of their stance on the industry. The FTX fallout will almost certainly give aggressive regulators the fuel they need to enact more crypto unfriendly regulations. This will also further substantiate the use and proliferation of CBDCs that are backed by central banks.

Additionally, those either on the fence or pro crypto will certainly face pressure to regulate the industry more and put in place more safeguards. Singapore especially will be placed in the spotlight as the question remains whether one can truly separate crypto from DLT/blockchain. Overall, we can expect more regulatory oversight and the sector to be put on a tighter leash.

The FTX implosion is still a developing story. Most recently, FTX's founder, Sam Bankman-Fried (SBF), was arrested and is now placed under house arrest after a record US\$250 million bail. The extent of collateral damage and contagion FTX's implosion will have on the wider crypto space remains to be seen. However, already, BlockFi, a US-based digital asset lender, has filed for Chapter 11 bankruptcy protection and cryptocurrency lending firm Genesis Global Capital, a subsidiary of crypto conglomerate Digital Currency Group, looks to follow suit.<sup>13</sup>

<sup>10</sup> Robert Farrington, The College Investor, "Celsius Review," Dec 2022, <https://thecollegeinvestor.com/35617/celsius-network-review/>

<sup>11</sup> *ibid*

<sup>12</sup> <https://triple-a.io/crypto-ownership-data/>

<sup>13</sup> Rachel Butt and Olga Kharif, Bloomberg, "Crypto Firm Genesis Is Preparing to File for Bankruptcy," Jan 2023, <https://www.bloomberg.com/news/articles/2023-01-18/crypto-firm-genesis-said-to-prepare-bankruptcy-filing-as-soon-as-this-week?leadSource=verify%20wall>

Meanwhile, the price of Solana, a cryptocurrency token that had been lauded by SBF, is down 92% since its peak in November last year. Solana, or SOL, is the token behind the upstart Solana blockchain, which supports smart contracts, including non-fungible tokens, and has emerged as a rival to the Ethereum blockchain.

### **Always Winter, Never Christmas**

The FTX fallout has left institutional investors remaining cautious throughout Asia and the world, regulators are on guard and many retail investors, no doubt burnt by the fall of cryptocurrency prices, have lost trust and confidence in the sector. In the current climate, it is difficult to see cryptocurrency and its related applications achieving the level of mass market adoption that was once envisioned for it.

Interestingly, the fallout from FTX only serves to re-enforce the need for more regulations and controls which inevitably means more centralization – a complete 180 from the original vision of presumed developer of Bitcoin, ‘Satoshi Nakamoto’ with its main value proposition.

On a philosophical level, It brings to question whether society can really function in a self-governing, decentralized manner. Perhaps the crypto industry characterized thus far by massive fraud and deception is a real-life depiction of the proverbial phrase “power tends to corrupt; absolute power corrupts absolutely.”

Evangelists, would, however, counter that FTX was fallible because it was a centralized, human-mediated entity that operated on top of the blockchain. Truly decentralized autonomous organizations (DAOs), they would argue, would not be susceptible to such corruption as they are governed by self-executing smart contracts that are guaranteed to function as written. In other words, we need more decentralization, not less of it, to avoid another FTX type scandal.

Ultimately, FTX’s implosion and other recent scandals have set the sector back many years. The world still, however, needs faster, cheaper and more efficient financial intermediation. Whether blockchain can provide that remains to be seen. The hope must be that it is crypto’s underlying technology’s turn to shine.



## More Partnerships on the Horizon for Digital Banks in Asia

*Despite much fanfare announcing their arrival, most digital banks have failed to perform. 2023 may be the year where digital banks are forced to partner with strong banking incumbents as well as consolidate their business lines in order to weather the storm.*

With many consumers willing to embrace digital banking or banking in a digital manner, a set of digital propositions is emerging. Indeed, digital banking in Asia Pacific (APAC) is taking off. Several such banking propositions have emerged across the region. Of some 250 digital banks worldwide, 20% are in APAC.<sup>14</sup> Yet only a handful remain profitable and, in some cases, have already ceased operations in the region. The reality paints a stark contrast to expectations for digital banks in years prior.

Further as macroeconomic woes deepen, with International Monetary Fund (IMF) head Kristalina Georgieva warning that one-third of the global economy will be in recession this year, 2023 may be a year where digital banks are forced to partner with strong banking incumbents as well as consolidate their business lines in order to weather the storm.

### Drivers Behind the Emergence of Digital Banks

Consumers across Asia have embraced digital technologies, making steady and growing use of the internet, social media, and e-commerce platforms. Smartphones—the device of choice—

alone generate around 65% of all internet traffic. Further, Asia accounts for more than half of all internet users in the world.<sup>15</sup> Smartphone penetration across Asia has reached 68% and is projected to increase to 83% by 2025.<sup>16</sup> With smartphones in hand, customers across Asia are changing how they bank, growing more open to exploring and using digital channels for their financial needs.

The increased accessibility and openness to digital channels has created a willingness to bank with non-traditional players such as fintechs, non-banking payments players, or digital banks which promise to provide more personalized products and fluid interactions through consumer facing product applications that are more intuitive.

Most notably, even platform companies have begun to enter the digital banking arena under the premise of a ‘super-app’ where all daily activities can be performed on one single application. They seek to serve customers with diversified and personalized offerings, and they share key features aligned with customer expectations and demands such as a comprehensive digital infrastructure which allows the capability for 100% digital delivery to customers including client servicing.

<sup>14</sup> <https://www.bcg.com/publications/2021/digital-banking-asia-pacific>

<sup>15</sup> <https://www.statista.com/statistics/249562/number-of-worldwide-internet-users-by-region/>

<sup>16</sup> [https://www.gsma.com/mobileeconomy/wp-content/uploads/2021/08/GSMA\\_ME\\_APAC\\_2021\\_Web\\_Singles.pdf](https://www.gsma.com/mobileeconomy/wp-content/uploads/2021/08/GSMA_ME_APAC_2021_Web_Singles.pdf)



Another and perhaps stronger proposition for why digital banks are on the rise is their value add to the financial inclusion imperative. Traditional banks often require extensive identification documents to set up accounts and are typically not able to extend loans to startups or micro, small and medium enterprises (MSMEs) because ticket sizes are too small and credit checks, where there is a lack of credit history, are too expensive to make it a profitable endeavor for the bank.

With a digital infrastructure that is agile, unlike legacy systems of traditional banks, digital banks have the ability to, for example, quickly build or integrate third-party identity verification and eKYC tools for individuals without the need for physical identification documents. In terms of lending, they can utilize alternative data through use of APIs to form a risk profile of a customer without any credit history in order to extend loans at a fraction of the cost traditionally incurred at incumbent banks. Where 51% of MSMEs in South-east Asia face a financing gap of some US\$300 billion, digital banks have more than enough room to participate and potentially grow.<sup>17</sup>

### Not Quite An Unstoppable Force

Against this backdrop it would seem that digital banks are a force to be reckoned with. However, reality paints a slightly less rosy picture. Of the 250 digital banks worldwide, about 13, or 5% of the total, are profitable.<sup>18</sup> Asian digital banks are relatively successful compared to their counterparts elsewhere, with 10 out of the 13 profitable digital banks worldwide being based in APAC. Still, none of these leaders have captured more than 2% of market share in terms of total value of deposits and loans within their target segments (typically retail and SME).<sup>19</sup>

What the profitable players have in common is backing from established companies with significant business experience and hyper connected ecosystems. This support yields several major advantages including strong brand recognition, established customer bases, and rich data to drive customer insights and customization. These have been used to lower the cost of customer acquisition and operations.

Most notably in South Korea, Kakaobank leveraged a 40-million strong Kakaotalk user base to acquire one million customers within the first five days. The digital bank also raised up to US\$3.6 billion in deposits and issued over US\$3.0 billion of loans in the first 100 days.<sup>20</sup> Kakaobank reached profitability in 2019 and to date, the bank has 18 million customers. Kakao's success, is however, the exception and not the rule.

The reality is that most other digital banks, that have not established strong lending propositions, or entered banking from digital payments, or have strong backing from established parent companies, or have substantial ecosystems, will fail. In Australia for example, Judo bank remains the only neo-bank of the country's original four neo-banks that is still operational and is riding on the success of its SME lending activity. Volt and Xinja have ceased operations, while 86 400 was acquired by National Australia Bank (NAB).

In Singapore, the entities granted digital banking licenses in 2020 have yet to make considerable inroads in a largely banked population.

### Traditional Banks are No Pushovers

While the majority of digital banks are struggling, traditional banks have been dedicating their time and budgets to digital transformation and have slowly caught up on competitive advantages that separated digital from traditional branch banking. Additionally, other than the financial inclusion perspective, as yet, digital banks provide little value over what traditional banks already provide. Customers may feel occasionally disgruntled with their existing bank, but that does not mean they are going to switch over to a digital competitor just because the latter has a shiny app or is utilizing supposed ground-breaking technology.

The misery does not end there for digital banks. As forecasts of slowing global economic growth and the potential of a recession in 2023 looms amid contractionary monetary policy adoption by world governments, costs of doing business are rising and the frivolous cash burn by many digital banks implies they are running a

<sup>17</sup> <https://www.experian.com.sg/insights/adopting-alternative-sme-credit-scores-to-improve-speed-and-accuracy-of-credit-underwriting-for-the-underbanked>

<sup>18</sup> <https://fintechnews.sg/52217/virtual-banking/only-5-of-the-world-challenger-banks-are-profitable-and-most-of-them-are-from-asia/>

<sup>19</sup> <https://www.bcg.com/publications/2021/digital-banking-asia-pacific>

<sup>20</sup> <https://www.mckinsey.com/-/media/mckinsey/industries/financial%20services/our%20insights/reaching%20asias%20digital%20banking%20customers/asias-digital-banking-race-web-final.pdf>



marathon with one arm tied behind their backs. They will face twice the amount of pressure from their competition, especially the traditional banks, which typically do well in a high interest rate environment. Further, banking behemoths have better access to capital, to tide them through the coming storm.

Ultimately, running a bank is more complicated and complex than observers like to give financial institutions credit for. At the very core is trust, which has been built up over decades and sometimes centuries. While we do not expect the same timeframe required for digital banks, it would certainly require more than advertisements with celebrities to obtain the same level of trust that traditional banks have established. Digital banks will need to withstand the test of time itself and show the ability to hold their own in times of turbulence – as did the banks of old.

### **What Then for Digital Banks?**

Expectations of digital banks as replacements for traditional banking behemoths are misguided, not least for those founded on shaky value propositions. In 2023, digital banks will need to refocus on what customers want. In that, they need to separate “good to haves” from the “must haves.” Must haves typically stem from real customer problems that do not yet have a solution or the existing solution is not good enough. Additionally, digital banks need to concentrate resources on high margin products/verticals such as lending and also focusing on communities which incumbents have found

hard to reach, i.e., rural communities. This implies digital banks in Asian countries with high unbanked populations such as Indonesia and the Philippines will be less affected with their stronger value propositions than digital banks offering me-too products in countries such as Singapore and Australia with close to 100% banked populations.

If digital banks, at least in mature APAC economies, want to survive the coming storm they will need to adopt less of a challenger mindset and instead find ways to partner with banking behemoths that are unbundling unprofitable services. Such partnerships will provide digital banks with established client bases, the stamp of trust, investment budgets, and banking know-how. Incumbents, meanwhile, will get access to new, innovative products and services that deliver a more seamless customer experience.

With that in mind, 2023 will be a defining moment for digital banks. Many of them will not be able to get the level of investment that they were receiving in years prior as investors demand returns above and beyond the risk-free rate. We will see cutbacks on advertising and a renewed focus on high margin products. Ultimately, those that remain will be those that have managed to obtain deep customer trust through an offering that solves an innate problem, not just surface level “good to haves,” and the ability to leverage partnerships, forming ecosystems to reduce their customer acquisition costs.

## Redesigning Capital Markets with Digital Asset Tokenization

*Digital asset tokenization promises to address inefficiencies in today's capital markets. Whilst the underlying technology has clear benefits, the future state of digital asset tokenization in Asia is open to a wide spectrum of possibilities. Regardless of the exact landscape, market participants would do well to take these dynamic developments seriously as digital asset tokenization is likely to be an increasingly important element of financial markets.*

Financial markets are largely efficient in allocating capital by bringing investors together with those who require funding. However, the traditional processes of raising capital and managing assets, namely, the origination/issuance, execution/settlement, and maintenance processes, have room for improvement.

Origination/issuance involves multiple stakeholders and is expensive, limiting who can participate in the raising of capital. Execution/settlement carries the risk of trade failure throughout the convoluted trade execution process and trades have long settlement periods due to the complex number of steps; finally, on the maintenance side, corporate actions such as dividend/loan payments, stock splits and voting are mainly conducted manually via cumbersome processes.

In recent years, digital ledger technology (DLT) and blockchain (a type of DLT) have become buzzwords in financial markets. Proponents suggest that DLT can enhance many of the inefficiencies in today's capital markets by streamlining processes, creating operational efficiencies, and helping new entrants gain access to finance thereby democratizing financial markets.





### **The Promise of Tokenization**

One of the more promising use cases of DLT in capital markets is digital asset tokenization, which effectively fractionalizes a physical or virtual asset into multiple so-called tokens, each typically conveying ownership rights to the underlying asset. The tokens can later be traded either privately, or on one of many secondary markets that have developed. Digital asset tokenization is occurring across a wide range of asset classes including securities (e.g., stocks and bonds), commodities (e.g., gold) and non-financial assets (e.g., real estate).

Digital asset tokenization aims to remove some of the inefficiencies in the traditional financial markets operating model, with key improvements to asset origination, trade execution and the ongoing maintenance of financial securities.

Starting with origination, digital asset tokenization can simplify the process by which assets are brought to market and make origination more efficient. That benefits both issuers and buyers. For issuers, greater efficiency results in reduced costs making markets easier to access, allowing smaller and more niche projects to raise funding that otherwise would not have been able to. On the buyer side, tokenization can increase market access for smaller investors as it reduces the minimum investment size. The ability to purchase smaller lot sizes also benefits investors as it gives them more flexibility in the assets they can purchase and enables them to better optimize their portfolios.

On trade execution, settlement can be a lengthy, time-consuming process. Under a tokenized framework, settlement can be

near instantaneous, or 'atomic' in the lingua franca of the market. Such atomic settlement reduces counterparty risk dramatically. The settlement process can be further strengthened by codifying various regulatory compliance requirements directly into smart contracts. For example, tokens can be programmed only to be transferable to certain wallets which can then ensure that tokens are only transferred to counterparties in jurisdictions that are permitted to hold the asset.

Finally, on the maintenance side, the ongoing day-to-day maintenance of assets often requires manual human intervention. Digital asset tokenization aims to substantially automate much of this process, reducing both risk and complexity. Features such as dividend or interest payments can be programmed into smart contracts on an asset thereby automating these processes.

### **Asset Digitalization in Asia Today**

There is a raft of digital asset tokenization activity across Asia as many entities are developing and launching new tokenization platforms. These players range from traditional institutions such as banks and exchanges through to ambitious startup Fintechs looking to disrupt the existing modus operandi.

SGX in Singapore, for example, is participating in several ventures, and while it remains to be seen how successful each of these ventures will be, a number are already live. Some of these include a nascent market utility built by Marketnode and electronic bond trading platform by TrumidXT.



Large banks across the region are also taking seriously the evolving digital asset tokenization landscape, with many building infrastructure to cater to client demand. For example, in 2020, global giant, HSBC tokenized a S\$400 million, 5.5-year public bond issue and a follow-on S\$100 million tap of the same issue by food and agribusiness supplier Olam International. Meanwhile, in May 2021, DBS issued a tokenized bond on its digital platform. Among other benefits, this bond was traded in lots of \$10,000, substantially lower than the \$250,000 lots typical for such an offering.

### **The Future of Digital Assets in Asia**

Whilst this technology has clear benefits, the future state of digital asset tokenization in Asia is open to a wide spectrum of possibilities.

At one end, we could simply see today's incumbents deploy new technology to handle digital assets in their existing markets and maintain market share. At the other end is, potentially, a decentralized network of Fintechs serving clients with a range of niche digital asset products and services. A third alternative is a model somewhere in the middle, where many of these entities operate in a federation of some sort.

There are several factors which will have a bearing on whether tokenization achieves widescale adoption. Top of the list is, quite

simply, ensuring adequate supply of and demand for these assets as, currently, the demand for digital assets is a bit unclear and there are only a few firms that have cracked the nut on creating them.

Demand can be aided by building trust in underlying assets and platforms, which will be helped by strong and sensible regulation. Ultimately, if a substantially improved client experience is realized, a positively reinforcing cycle may develop as markets deepen and tokenization becomes more mainstream.

Regardless of the exact landscape, market participants would do well to take these dynamic developments seriously as digital asset tokenization is likely to be an increasingly important element of financial markets. As more platforms are deployed, investors and issuers will take business to those places offering the most efficient means of conducting their activities. Accordingly, there is opportunity for those able to capitalize on this technological development.

*To read more about Digital Asset Tokenization in Asia and Kapronasia's view on how the market will evolve, download our report on "[Digital Asset Tokenization in Asia Pacific](#)."*





## ESG – Do We Believe The Hype?

*Monitoring and reporting on ESG progress is blighted by challenges. That makes it ripe for green fintech solutions in 2023 to enter the fray. However, despite much lip service being paid to the matter, the reality on the ground suggests that organizations, while keen to tout their ESG credentials, are not serious about investing in ESG initiatives that are not mandated by the regulator.*

Today, a myriad of issues are taking center stage making the Environmental, Social, and Governance (ESG) agenda as important as ever. Climate is at the forefront as temperatures hit record highs across the globe, threatening humanity and the environment. Additionally, social media and the platform economy have proliferated social issues such as equality, diversity, and inclusion.

Regulators and policy makers believe that the corporate sector, being at the heart of capitalism, can help to solve these issues, from environmental pollution to workplace diversity. Taking climate change as an example, regulatory pressure is increasing through a combination of global policy adjustments and international cooperation which can be seen through global climate meetings such as the Conference of the Parties (COP). These developments should be viewed against the global backdrop of the push towards carbon neutrality, with countries working towards halving carbon emissions by 2030 and reaching net zero by 2050.

Changing social demographics and consumer demand are also putting pressure on companies to be more considerate about their impact on the environment and to be more inclusive. Again, taking climate change as an example, a survey showed that more than half of U.S. consumers say they are willing to pay some form of premium of around 30 to 40 percent for sustainably produced goods. In addition, Consumer Reports data show that 71% of Americans have some interest in buying an

electric vehicle even though less than 50% of them are aware of the availability of government tax incentives for these.

### **The Growing Importance of ESG-based Capital Allocation Criteria**

Such changes are also starting to influence how capital is allocated in capital markets. There has been a tremendous growth in ESG investment activity with global ESG assets estimated to potentially surpass US\$41 trillion by 2022 and US\$50 trillion by 2025.

The explosion of ESG-based capital allocation criteria has led to a myriad of initiatives to try and help ensure that such capital is indeed going to the right companies that have the right business practices. At the core of such initiatives are ESG reporting and ESG ratings. We can think of ESG reporting and ratings as akin to annual reports and credit and bond ratings, respectively. Companies publish their annual reports in line with public standards and third-party entities like Moody's or Fitch provide a credit score or bond rating.

In similar fashion, ESG reporting and ESG ratings help mitigate risk by screening investments based on ESG criteria which has implications for business. For example, a company that does not meet the ESG standards for labor welfare would likely be excluded from an ESG focused fund or investor. A by-product of this is that it then directs investment to the best ESG performers. Aside from adhering to regulations, corporates that perform poorly on the ESG front are then incentivized to adopt measures to improve on their ESG initiatives. At the same time, ESG laggards that fail to adopt ESG practices will find it increasingly difficult to obtain capital investment from public markets and may eventually lose their competitive edge to the extent of possibly being weeded out.

### Challenges of ESG Reporting

However, unlike accounting standards where there are only two main standards to follow (USGAAP and IFRS), to date, there have been a plethora of ESG frameworks released by various international bodies. The most notable ones thus far are the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the Task Force on Climate-related Financial Disclosures (TCFD), and the Carbon Disclosure Project (CDP) just to name a few. The problem arises when companies use a combination of frameworks to formulate their reports which leads to a lack of comparability across companies. This affects participants' ability to effectively conduct due diligence, manage risks, measure outcomes, and align investments with sustainable, long-term value.

The lack of verifiable and standardized ESG data also exacerbates the problem of 'greenwashing' where companies make unsubstantiated claims to mislead consumers into believing that a company's products are environmentally friendly.

Adding to the problem for multinational organizations is the fragmented nature of ESG regulation, especially across the Asia Pacific region, with no clear and consistent taxonomy and a lack of universal adoption of global ESG standards / frameworks. To this end, efforts are

ongoing to harmonize competing frameworks. However, this implies that standards will once again change, and companies once again have their work cut out for them in terms of data management and converting that data into meaningful disclosures.

### Fintech Solutions Help ESG Reporting

Such challenges make it ripe in 2023 for solutions to enter the fray. Developments in green fintech which aim to promote ESG data quality and consistency will be a key focus among institutions, potentially reducing the cost of compliance and allowing for better tracking and analysis of sustainability commitments, impact measurement, and management of ESG products. With the aid of such technology, institutions will be better able to meet the increasingly standardized and evolving ESG disclosure rules, thereby alleviating new regulatory burdens and regulatory enforcement risk. In Hong Kong for example, Allinfra is a green fintech solution that provides auditable and verifiable data for ESG reporting utilizing the blockchain. GreenArc, meanwhile, is a Singapore headquartered impact investment and analytics fintech offering impact measurement and reporting for private debt investments.





Carbon emissions and how to measure those emissions are also an area where green fintech can potentially provide solutions. In Singapore, CO2 Connect (CO2X) is a platform that helps corporates automate their carbon footprint computation and reduce their carbon emissions and costs. Companies like CO2X are showing how collaboration between institutions and fintechs can further the ESG prerogative. United Overseas Bank (UOB) has partnered with CO2X and OCBC to develop a platform that will provide local SMEs with accessible carbon tracking solutions and green financial services.

### **ESG is Here to Stay**

However, at least as far as APAC is concerned, despite much lip service being paid to the matter, the reality on the ground suggests that organizations, while keen to tout their ESG credentials, are not serious about investing in ESG initiatives that are not mandated by the regulator. Regulators themselves are also taking a rather immature approach towards ESG, especially on the environmental side of things. While there has been much fanfare about various initiatives, again there are plenty of anecdotal examples where the reality does not match the rhetoric and decidedly un-environmental practices still prevail.

However, that is not to say that progress is not happening. Globally, flows into exchange-traded funds (ETFs) with ESG mandates have gone from less than US\$10 billion in 2015 to over US\$40 billion in 2020. Total global assets under management with an ESG mandate have now reached close to US\$40 trillion up from about US\$20 trillion in 2016. Growth is expected to

continue, reaching a projected US\$50 trillion by 2025, representing over a third of total global AUM.

In Asia, a number of countries such as Japan and South Korea have committed to net zero greenhouse gas emissions by 2050. In China, an agrochemicals company completed one of Asia's largest sustainability-linked loans amounting to US\$ 4.5 billion.

Additionally, global regulations will continue to evolve and take shape with new requirements such as the Corporate Sustainability Reporting Directive (CSRD), part of the European Green Deal to make the European Union (EU) climate neutral in 2050. The new directive modernizes and strengthens the rules about the social and environmental information that companies have to report. Companies subject to the CSRD will have to report according to European Sustainability Reporting Standards (ESRS). Such standards are global, and regulators in Asia will no doubt have to follow suit.

A combination of pressure coming from regulators and consumers will push forward ESG development and adoption. Organizations that are able to transform their business models over the next few years will put themselves in a good position to flourish. This includes utilizing available technology and solutions to generate the data they need for ESG related matters. Prizes for transformation include greater brand loyalty, the ability to secure capital, and increased profits. Those who fail to adapt, or 'greenwash' will face a reduction in market share, black-listing, and possible penalties.

## Where to For Artificial Intelligence in Financial Services

*Many financial institutions across APAC have already begun to incorporate AI into their operations, and the trend is expected to continue as the technology matures and becomes more widely available. At the same time, both the financial industry and regulators are also aware that there are challenges and risks associated with AI that need to be addressed. The financial institutions that win will be the ones who successfully balance business benefits against regulatory complexity and the need to maintain customers' trust.*

The proliferation of the usage of smartphones together with the digital transformation of the financial industry is contributing to the exponential progress in the use of artificial intelligence (AI). Indeed, AI is now at an inflexion point where it is primed to take a leap forward. The financial institutions that have the digital infrastructure, culture, and mindset that are able to make full use of the technology will start to break away from the competition.

### The State of AI in Asian Financial Services

Many financial institutions across APAC have already begun to incorporate AI into their operations, and the trend is expected to continue as the technology matures and becomes more widely available. Specific areas where AI is being utilized by the financial industry include:

**Customer service:** AI has led to the introduction of chatbots and virtual assistants. These chatbots have the capability to automatically answer basic questions such as checking account balances or booking branch appointments. The idea is to reduce as much friction as possible to create a seamless and personalized customer journey (while at the same time reducing costs for banks). Most banks across Asia already have a version of their own chatbot, either white-labelled or built in-house. Malaysian bank CIMB, for example, introduced

the first conversational style and real-time chatbot for commercial banking which was the first in-market chatbot at the time of release.

**Automated investment advice:** AI-powered robo-advisors are being used to provide personalized investment advice to retail investors. Many traditional financial institutions have launched robo-advisory platforms, and there has also been a proliferation of fintech robo-advisors across Asia. The latter include startups such as Endowus, Syfe, Stashaway, and Robowealth. This trend is likely to continue as more investors seek low-cost, digital options.

**Credit scoring and lending:** AI-based systems are being used to analyze vast amounts of data to assess creditworthiness and make lending decisions. This can help to make the lending process more efficient, while also reducing the risk of loan defaults. AI is, for example, being utilized to capture insights from alternative sources of data which then makes it possible to extend loans to individuals who do not have any credit history. This is especially pertinent in a region like Southeast Asia, where 60% of surveyed MSMEs were unable to get a loan when they needed financing. UnionBank in the Philippines, for example, has utilized AI-powered credit scoring models to generate credit scores for the unbanked through the use of such alternative data.

**Fraud detection and anti-money laundering (AML):** AI-powered systems are being used to detect patterns of fraudulent activity and money laundering that would be difficult for humans to spot. This is especially important as financial crime continues to evolve and become more sophisticated. DBS, a Southeast-Asian bank, for example, has deployed AI/ML to reduce the number of false positives as well as prioritize alerts such that analysts can dedicate more time to higher risk activities. The bank also utilizes AI programs to gather massive amounts of bank data needed to make decisions on alerts.

**Risk management:** AI-powered systems are being used to analyze large amounts of data to identify patterns and trends that may indicate potential risks. This can help financial institutions to manage and mitigate risks more effectively.

In addition, AI is being used in several other areas such as regulatory compliance, trading, and portfolio management.

### **Challenges Hindering AI's Uptake**

In Asia Pacific, where a slew of digital banks (challengers) have entered the banking landscape looking to challenge incumbent banks, AI is increasingly seen as a way to obtain competitive advantage. However, both types of entities face their own challenges in their implementation of AI.

On the one hand, challengers have the digital infrastructure to quickly integrate with a third-party AI provider through the use of APIs. Challengers are also better able to grab data across various units to generate more cohesive insights unlike banks which are often plagued by layers of legacy technology and siloed data.

On the other hand, banks have large customer bases and massive operations which means

that they are sitting on a treasure trove of data. Where the effectiveness of AI/ML tools is predicated around the amount and quality of data that is fed into such systems, banks will have the edge if they are able to successfully overcome their digital infrastructure challenges.

A number of other challenges are also preventing AI's wider adoption. These include areas such as cybersecurity, where AI systems may be vulnerable to cyberattacks, which can be a concern for financial institutions. In addition, many financial institutions may lack in-house expertise to develop and implement AI systems. It can also be difficult to integrate AI systems with existing systems and processes.

### **Expectations for the Future of AI**

To an extent, expectations for AI have been spoiled by mainstream movies and pop culture. Where the expectation was for conversational AI to reduce reliance on call centers, chatbots are still not able to carry out full conversations and in some cases are still scenario based, only able to return a pre-determined set of replies to a limited set of scenarios. If queries from customers are outside of the set, customers will be directed to a call/chat center.





In addition, financial services are heavily regulated. These must comply with a wide range of regulations, which can make it difficult to implement new technologies like AI. All AI-based decisions need to be properly understood and be able to be explained by financial institutions when the regulators come knocking on the door.

The need to understand algorithms powering AI/ML tools, especially when it concerns the use of customer data and money will become more important as AI tools continue to proliferate and power products and operations within financial services. There are concerns about the potential ethical implications of using AI in financial decision-making, such as bias and discrimination. Singapore has, as a result of such concerns, launched the world's first AI Governance Testing Framework and Toolkit. A.I. Verify aims to promote transparency and ethical use of AI between companies and their stakeholders through a combination of technical tests and process checks.

We can expect more countries in Asia to follow Singapore's lead. Financial institutions must be able to demonstrate the trustworthiness and transparency of AI systems to both regulators and customers. Instead of just simply deploying the AI, banks will increasingly need to spend more resources in not only making sure they are compliant with regulations, but also having the correct people in place with a good handle on data and data architecture.

That being said, AI usage in financial services is becoming the rule, not the exception. Institutions that are far ahead in the AI agenda will stand to win. If there is any indication of a first mover advantage, the use of AI will be a case in point. Further, the ones that win will be the ones who successfully balance business benefits against regulatory complexity and the need to maintain customers' trust.

The future of AI in financial services is likely to be characterized by increased use of AI across a wide range of applications, from fraud detection and risk management to personal finance and financial advice. Overall, it can be said that AI is already making a significant impact in the financial services industry, and this trend is expected to continue as the technology matures and becomes more widely available.

The incorporation of AI in financial services will bring a lot of benefits such as cost reduction, improved efficiency, better customer services and more accurate decision-making. At the same time, the financial industry is also aware that there are challenges and risks associated with AI, such as data privacy, security, job displacement, and ethical concerns, that need to be addressed.

## Embedded Finance: Emerging Functions and Business Models

*Across the region, market participants are looking for ways to innovate and attract new customers. The digitization of commerce and business management has expanded opportunities to embed finance in non-financial customer experiences. For those willing to put in the effort to build new products, there is an opportunity to cash in on these technological developments.*

Embedded finance is the placing of a financial product in a non-financial customer experience, journey, or platform without the need to use a banking platform or physically visit a bank branch. That in and of itself, is nothing new. For decades, non-banks have offered financial services via private-label credit cards at retail chains, supermarkets, and airlines. Other common forms of embedded finance include sales financing at appliance retailers and auto loans at dealerships. Arrangements like these operate as a channel for the banks behind them to reach end customers.

What makes the next generation of embedded finance interesting is the integration of financial products into digital interfaces that users interact with daily. Possibilities are varied: customer loyalty apps, digital wallets, accounting software, and shopping-cart platforms, among others.

### Drivers of Embedded Finance

The evolution of embedded finance has been enabled by fundamental changes in commerce, merchant and consumer behavior, and technology. The digitization of commerce and business management has massively expanded opportunities to embed finance in non-financial customer experiences.

The combination of changes in behavior and improvements in technology via open banking has created an avenue for both financial and non-financial companies to provide more value to consumers while at the same time leaving them to figure out how to capture that value and translate it into revenue and profit. Across the region, market participants are looking for ways to innovate and attract new customers.

### Embedded Finance Solutions in Asia Today

Approaches to embedded finance can be bucketed broadly into three buckets.

**Capturing Value of Existing Services:** A myriad of non-financial platforms across Asia are building solutions into their platforms aiming to capture value from the existing financial services value chain. These are usually, elementary financial services like payments or foreign exchange (FX). Taking payments as an example, ride hailing apps such as Grab and Gojek now routinely process payments at the click of a phone button. Traditionally, these payments would have been the domain of banks and other large financial institutions as well as payment service providers (PSPs). Today, more platforms are bringing payments in-house, effectively becoming their own PSP either through their own payments license or a partner's.

**Provision of Complementary Products:** Another area where embedded finance is being utilized is in the provision of financial products which are complementary to an existing non-financial offering. For example, the ability for a customer to borrow, or obtain insurance at the point of sale when purchasing a non-financial good or service. This allows the platform to provide a more seamless service to its customers while also capturing a portion of the financial product revenue.

Taking the lending example, Tokopedia, an Indonesian ecommerce platform, has embedded merchant lending products into its platform, seamlessly providing access to capital for merchants on their platform, many of which do not have access to traditional financial services.

**Launching Full-Service Banking:** Finally, embedded finance is also being leveraged to sell completely new financial products and services. In this case, clients are channeled to new services which may be different from the business' current offering, thus creating a brand-new revenue stream.



An example of this is Standard Chartered's partnership with Bukalapak, an Indonesian e-commerce platform, where a white labeled bank account is opened on Bukalapak using technology provided by Standard Chartered's nexus. The partnership allows a user on Bukalapak to open, via a sister app, a full-service bank account which is equivalent to that offered by a traditional bank without the need for the usual physical banking infrastructure.

### **The Future of Embedded Finance in Asia**

While it is currently the simpler products such as payments/FX, and retail lending that predominate embedded finance across Asia today, the potential for product development is unlimited.

An obvious next step in the evolution of embedded finance would be for companies to further embed the more mainstream financial services such as savings accounts and investment products into their non-financial applications. BNPL offerings could also be developed further as customers want financing and flexible options on a wider array

of products. There is also a dearth of products serving the SME market. Financial services could be further integrated into Enterprise Resource Planning (ERP) systems. That could involve, for example, integrating payments into accounting platforms to enable SMEs to make payments to suppliers directly from these.

Precisely how embedded finance plays out across Asia remains to be seen, however what is clear is that embedded finance is here to stay in some form. For those willing to put in the effort to build new products, there is an opportunity to cash in on these technological developments. The corollary is that there is also risk to existing business models for those remaining wedded to business models of the past.

*To read more about Embedded Finance in Asia and Kapronasia's view on how the market will evolve, download our report on ["An Embedded Finance Future in Asia."](#)*



## Finding a Path to Profitability

*The days of easy money are over. Following the bursting of the tech bubble, investors are now going to be a lot more focused on the fundamentals. Startups they invest in will have to showcase the path to profitability.*

An unparalleled era of easy money came to an end in 2022, as central banks shifted gears to fight inflation. That era was characterized by loose monetary policy and Quantitative Easing (QE) enacted by central banks across the globe as they grappled first with the global financial crisis and then with the pandemic.

The resulting low-interest rate environment fueled a tech boom, helping to create a parade of “unicorns” – companies whose valuations exceed US\$1 billion – that were anything but rare. Investors, desperate for returns, piled into a wide range of tech startups on the premise that they could have more money than they could possibly need, just as long as they grew as fast as they could and took as much market share as possible. Profitability was something that could be worried about later.

The amount of money pumped into startups skyrocketed in 2021. Globally, annual venture capital (VC) investment hit US\$620.8 billion, more than double the US\$293.7 billion invested in 2020 and the US\$258.5 billion invested in 2019 at pre-covid levels.

In Asia-Pacific, private funding received by fintechs also more than doubled to US\$15.69 billion in 2021 from US\$5.87 billion in 2020. While large rounds of at least US\$100 million accounted for nearly 54% of total transaction value in 2021, a spike in transaction volume also contributed to the surge.

Fear of missing out led to a race to invest at almost any price. At the peak, startups were receiving valuations that were up to 100 times their annual revenue despite failing to return a profit. That in turn made it easy for these companies to finance aggressive expansion initiatives or to offer heavily subsidized perks to potential customers to boost market share. In Asia, startup darlings such as Grab and Sea Limited, for example, expanded operations across the region with the latter even expanding their commerce business to Latin America.

The party, though, could not go on forever. Rising inflation led to higher interest rates as

central banks across the world went into reverse. The era of cheap money was over. Suddenly those valuations did not look so attractive anymore. The appeal of companies which aim for rapid growth in the present with reliable profits only arriving sometime in the future was hugely diminished.

In the US, as investors headed for the exit, the tech-heavy Nasdaq slid 33% for the whole of 2022, its steepest decline since 2008 and the third-worst year on record. In Asia, Sea Limited, Southeast Asia's largest listed tech firm, had a market capitalization of US\$29.42 billion at the end of January 2023, down from over US\$200 billion in late 2021. Grab has also seen its share price tumble.

### Growth Plus Profitability

Following the bursting of the tech bubble, investors are now going to be focused on fundamentals. Startups they invest in will have to showcase the path to profitability. Unfortunately, that does not mean investors are giving up on growth – companies are going to have to show growth plus profitability in 2023, albeit more measured growth, rather than growth at any cost.

The focus on growth plus profitability means that startups are going to have to ensure that they are built on sustainable foundations. Simply just focusing on scaling up will no longer be sufficient. Startups need to be looking at building companies with strong, differentiated products geared towards solving clear pain-points in the market.

They will also need to reevaluate their growth plans and what growth at a reasonable cost would look like. That probably means tapping the break on new acquisitions and cutting back on discretionary areas of spending tied to growth. Startups will also need to reduce their operational expenses, which includes reducing their customer acquisition costs. This means a greater focus on unit economics, concentrating on revenue generating customers and retaining them while dropping the deadweight.

The pressure to reduce costs and showcase the path to profitability may also bring about more partnerships. For some, that means dropping the challenger mindset and looking for ways they can bring value to incumbents and their

end customers. A player like GXS (Grab-Singtel digital bank) may consider partnering with a local incumbent, for example. That being said, partnerships are not limited to established startups and incumbents. Smaller startups can look to partner with each other or look to partner with an 'incumbent startup' such as a Shopee or Grab.

### Conclusion

The macro-economic environment is set to erase much of the low hanging value propositions that have been extended to consumers. That

includes lower prices or discount vouchers. With the pressure to breakeven together with the cost of doing business rising, companies will have to raise prices and those without a clear value proposition will see customers drop.

Fundamentally, businesses will need to reexamine their existing value propositions and reposition business models to solve real problems or gaps in the market. Those that are unable to do so will unfortunately not survive. As Warren Buffet says, "Only when the tide goes out do you discover who's been swimming naked."

## CBDCs in Asia

*Interest in CBDCs within the Asia Pacific region has grown significantly in recent years. CBDCs could enable central banks to address a wide range of objectives, including the promotion of financial inclusion and reducing fraud and money laundering. However, CBDCs also come with risks that central banks will need to consider. It is because of these risks that regulators in Asia Pacific are likely to take a cautious approach to CBDCs while continuing to explore their potential.*

Central bank digital currencies (CBDCs) may be assumed to be new, but the concept of a digital currency can be traced back three decades. In 1993, the Bank of Finland launched the Avant smart card, an electronic form of cash. Although the system was eventually dropped in the early 2000s, it can be considered the world's first CBDC.

Much progress has been made since then, with China launching the e-CNY early in 2022 which was quickly followed by projects to explore the feasibility of adopting CBDCs in countries within the region spearheaded by the central banks of each country. At the global level, approximately 90% of the world's central banks have already started or are in the middle of a CBDC project.

With strong regulator support behind CBDCs coupled with the unceremonious fall of many non-government backed cryptocurrencies, 2023 is shaping up to be a big year for CBDCs in Asia.

### What is a CBDC

A CBDC is a digital version of a fiat currency which can be deployed in wholesale and retail models. Wholesale CBDCs (wCBDCs) are a digital version of reserve deposits held at central banks by financial institutions. They are intended for the settlement of interbank transfers and related wholesale transactions.

At the wholesale level, CBDCs can offer new capabilities and enable transactions between financial intermediaries that go beyond the traditional medium of central bank reserves. Wholesale CBDCs transact on a distributed ledger and as such offer capabilities such as programmability and atomic settlement, so that transactions are executed automatically when set conditions are met.

They allow several different functions to be combined and executed together, thus facilitating composability of transactions. These new capabilities permit the expansion of the types of transactions and enable transactions between a much wider range of financial intermediaries, not just commercial banks. Wholesale CBDCs also work together across borders, through multi-CBDC arrangements involving multiple central banks and currencies.

Wholesale CBDCs also unlock the possibility for tokenized deposits by creating a digital representation of deposits on the DLT platform and settling them in a decentralized manner. This could facilitate new forms of exchange,

including fractional ownership of securities and real assets, allowing for innovative financial services that extend well beyond payments.

In contrast to wholesale CBDCs, retail CBDCs are primarily to be utilized by individuals that will use them essentially as digital cash, with the comfort of knowing that the currency is issued and backed by the country's central bank. There are a number of potential benefits of retail CBDCs. They could facilitate faster and more efficient cross-border payments that are cheaper, more transparent, and resilient. CBDCs could also improve the channels through which monetary policy is conducted. Finally, CBDCs could promote financial inclusion. People with no access to regular bank accounts will be able to access CBDCs to use in both domestic and cross-border transactions.

### **The Fall of Crypto as a Springboard for CBDCs**

Recent events surrounding cryptocurrencies and stablecoins have revealed a divergence between the crypto vision and its reality. The crypto universe lacks a nominal anchor, which it tries to import through stablecoins. Credibility for these coins is imported from sovereign fiat currencies, but they benefit neither from the regulatory requirements and protections of bank deposits, nor from the central bank.

In addition, they tie up liquidity and can fragment the monetary system, thus undermining the singleness of what is needed in a currency. In short, stablecoins lack the qualities necessary as a building block of the future monetary system.

It is becoming clear that crypto and the decentralized finance world as it is now, have deeper structural limitations that prevent them from achieving the levels of efficiency, stability or integrity required for an adequate monetary system. The implosion of TerraUSD and the collapse of its twin coin Luna in just a few days would seem to be proof of such instability.

### **The State of CBDCs in Asia Today**

Currently, the focus on wholesale or retail CBDCs is mixed across the region with some jurisdictions opting to focus on one or the other or both. Although there may be outliers, generally speaking, wholesale efforts are more prevalent in advanced economies that have more developed interbank systems and capital

markets. In contrast, retail CBDC projects are more common in emerging economies with financial inclusion expected as an outcome.

On the cross-border front, CBDCs need to be able to support cross-border payments, underpinned by robust payment and settlement rails that can support economic integration and public interest objectives. As such there have been a number of cross-border projects in the region to explore the feasibility of cross-border interoperability. Two recent project examples, that have both been overseen by the Bank of International Settlements (BIS), are mBridge and Project Dunbar.

### **Project mBridge**

Project mBridge is a multiple central bank digital currency (multi-CBDC) initiative for cross border payments involving the BIS Innovation Hub Hong Kong Centre, the Hong Kong Monetary Authority, the Bank of Thailand, the Digital Currency Institute of the People's Bank of China and the Central Bank of the United Arab Emirates.

Over a six-week period from August to September 2022, the system was used by 20 banks across the four markets to process more than 160 payments and foreign exchange transactions with a total value of around \$22 million.

In a report issued in October 2022, the participants said the pilot had “confirmed that a common multi-CBDC platform can improve cross-border payment speed and efficiency, reduce settlement risks and support the use of local currencies in international payments”.

### **Project Dunbar**

In March 2022, the BIS Innovation Hub, the Reserve Bank of Australia, Bank Negara Malaysia, the Monetary Authority of Singapore, and the South African Reserve Bank announced the completion of prototypes for a common platform enabling international settlements using multi-CBDCs.

Led by the Innovation Hub's Singapore Centre, Project Dunbar proved that financial institutions could use CBDCs issued by participating central banks to transact directly with each other on a shared platform. This has the potential to reduce reliance on intermediaries and, correspondingly, the costs and time taken to process cross-border transactions.

### **The Future of CBDCs in Asia Pacific**

Interest in CBDCs within the Asia Pacific region has grown significantly in recent years. That interest is not just limited to the more advanced economies with developed financial markets either. While China has been at the global forefront of experimenting with CBDCs, emerging markets, such as India and Thailand have made rapid progress.

CBDCs could enable central banks to address a wide range of objectives, including the promotion of financial inclusion, reducing fraud and money laundering, stimulating local payments innovation, and creating a new vehicle for monetary policy, to name a few.

However, CBDCs also come with risks that central banks will need to consider. These

include cyberattacks, and risks around data privacy and financial integrity. CBDCs would be able to accumulate sensitive payment and user data at an unprecedented scale. In the wrong hands, this data could be used to spy on citizens' private transactions, obtain security-sensitive details about individuals and organizations, and even steal money.

It is because of these risks that regulators in Asia Pacific are likely to take a cautious approach to CBDCs. Indeed, according to a recent IMF survey, while most Asian countries are engaged in research and development, with some at advanced stages of testing and pilots, very few countries are likely to issue CBDCs in the near-to-medium term, reflecting the still considerable uncertainties.



A photograph of the Shanghai skyline at sunset. The Oriental Pearl Tower is on the left, and the Shanghai Tower is on the right. The sky is a warm orange and yellow.

# Kapronasia

Kapronasia is a leading strategic consultancy covering FinTech, banking, payments, and capital markets. From our offices and representation in Shanghai, Hong Kong, Taipei, Seoul, and Singapore, we provide clients across the region the insight they need to understand and take advantage of their highest-value opportunities in Asia and help them to achieve and sustain a competitive advantage in the market.

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