



**TEMENOS**  
THE BANKING SOFTWARE COMPANY

# Open Banking: The New Paradigm In Asia Pacific Financial Services

Open APIs ensure beneficial collaboration in  
financial sector



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# Executive Summary

Attack is the best form of defence, so says the age-old adage. As cliché as this sounds, banks, insurers, brokerage and advisory firms – traditionally known as the financial services industry (FSI) – must do this or risk being left out of the new banking value chain. Why?

Simply put, the days in which the FSI exclusively owns and processes customers' data is waning. It is giving way to the age of Open Banking – a new era where the FSI must avail customer data to non-bank, third party financial providers (TPPs), which include fintech firms, technology and e-commerce players, payment processors, telcos and even retailers.

While it isn't curtain call for the FSI yet, this paper argues that it must act now to embrace Open Banking. How? By forging strategic partnerships with reputable fintech firms as well as launching their own platform strategies via the use of open application programming interfaces (APIs). Open APIs will make it possible to securely leverage new innovations from fintech firms and yet allow banks to keep their prized possession – that of the relationship with their customers.

## Key points:

- Advanced markets in the UK and Europe are leading the way with the introduction of Revised Payment Services Directive (PSD2) legislation to spur banks to share information with TPPs. While there isn't a similar legislation yet in Asia Pacific, the trend is unstoppable, as market forces will ensure that Open Banking will fully blossom in Asia in the next 18 to 24 months.
- While Open Banking may be perceived as nascent and fragmented in APAC<sup>1</sup>, especially Southeast Asia (ASEAN<sup>2</sup>), the pace at which it is being explored by the FSI in both regions is advancing very quickly. Banks in particular must act by embracing open API frameworks to prepare for this wave or risk being disintermediated.
- Collaboration with fintech firms is the order of the day. Reputable fintech firms have the creativity, agility, technical expertise, community-driven pulse of today's young and savvy consumers, and can provide new, tech-based solutions to put the customers at the centre of banking. The FSI have the resources, broad customer base, and regulatory expertise to advance Open Banking. Together more can be achieved.

## Recommendations:

- With a top down, organisational-wide approach, conduct an honest assessment of where you are in your Open Banking initiatives, where you want to be in the next 18 to 24 months.
- Establish an agile, lean cross-functional team, comprising all stakeholders necessary to make Open Banking work, and empower them to explore what can be done with clear lines of accountability back to top management. Give them strategic goals to achieve, not just tactical/functional ones.
- Use the checklist in this paper to help guide your Open Banking efforts moving forward for the next 18 to 24 months.

<sup>1</sup> Asia Pacific which includes the part of the world in or near the Western Pacific Ocean, typically including much of East Asia, South Asia, Southeast Asia, and Oceania

<sup>2</sup> Association of South East Asian Nations which includes Myanmar, Thailand, Philippines, Malaysia, Singapore, Indonesia, Vietnam, Laos, Cambodia, Brunei

# Open Banking: Threat or Opportunity?

## The Context

For years, the financial services industry (FSI) – collectively defined in this paper as banks, insurers, brokerage and advisory firms – has been the kingmaker dictating almost the entire banking value chain. Customer acquisition, product development, sales, marketing & product management, user & customer experience, account information & data processing – the FSI has mostly been in control of what, where and how customers consume their financial services.

But in the last 5 years, this value chain has been disrupted by nimbler, tech-based, non-bank entities, many being financial technology or fintech firms. There are many reasons for this but 3 major ones stand out. The first is the growing dissatisfaction with regards to the customer experience. While FSIs have detailed data about their customers, they have struggled to make banking more exciting and accessible to the younger millennial crowd, which seem to favour using fintech firms instead. A 2017 Capgemini/EFMA World Banking Report noted that fintech firms are gaining popularity among consumers and that half of banking customers across the globe are using the products or services of at least one FinTech firm.

This dovetails nicely into the second point. Customers' preferences and expectations today are so accustomed to digital innovations brought on by – Facebook, Apple, Google in the west; Alibaba, WeChat, Lazada, in Asia – in areas such as personalisation, real-time services, speed-to-market and the breadth in product and services. Many FSIs are struggling to keep pace with such requirements, and even if they are at pace with them they cannot innovate as fast due to legacy technology, bureaucratic processes and the regulatory limitations within which they operate.

The third point is that the new players, which provide alternative financial options to these ripe-for-the-taking customer segments are capitalising on this first 2 trends. In ASEAN, VC-backed funding is generally on the rise, according to CBI Insights, a venture research firm. Deals to venture-backed fintech companies in Southeast Asia – specifically Indonesia, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam – rose 29% last year from 55 in 2015 to 71 in 2016, it noted. So no longer can FSIs merely use standard monetary policies or approach digital innovations in a piecemeal way to compete with such firms. They need to be proactive in mitigating such pressures or risk becoming irrelevant in the coming decade.

## Drivers in Open Banking

But how does the FSI benefit against these trends? This is where Open Banking comes in. Open Banking represents an opportunity for the FSI to embrace change in a positive and proactive way. Open Banking is the adoption of common standards for collaboration between banks and other players within the banking eco-system. Underpinning this is the use of open application programming interfaces or open APIs. An API is a set of protocols that allows software and applications to communicate with each other in a seamless manner in the background without users knowing. This is best exemplified by how a consumer app, say a travel app, asks for authentication via a Google or Facebook login. Instead of having to sign up and enter new details to access the travel app, the app makes an API call to Google or Facebook to enable authentication.

Open Banking uses open API calls in order that banks can share their information securely with non-bank third party financial providers (TPPs), thereby granting them access to customer data. This data can be public data such as a bank's products and services or it could be private such as an account holder's transactional details. There are three types of API calls: private, partner and public. A private API connection happens internally within a bank; a partner API connection is made between a bank and its authorised partners; and finally a public API is made available to any one who wants to use it to connect to the bank's information store.

Several global developments are driving Open Banking. The first is the development of a European Union (EU) legislation known as the Revised Payment Service Directive (PSD2), a legal directive that would require financial institutions to share data and information with TPPs so that they may make use of the data and offer customers their own financial services. Other nations' regulatory bodies have also begun to move in this direction. Consultant firm Capgemini noted that the Consumer Financial Protection Bureau (CFPB) in the United States and the Monetary Authority of Singapore (MAS) are fostering open-banking initiatives, as is Australia's most recent drive towards a phased open banking implementation at the Big Four banks by the federal government by July 2019.



According to a 2016 survey of 174 respondents from across banks, fintech firms, consultancies and payment providers, by the Open Banking Project, banks are growing in API awareness and maturity with 39% of banks having introduced open API initiatives and 39% planning to do so in the next 12 months. The open API publication, The Programmable Web, noted that in the five years spanning 2012 to 2017, there were between 216 and 425 APIs added annually, up from fewer than 20 before 2007. It also noted that regulatory measures such as the PSD2 allowing TPPs to access account information or to initiate payments on behalf of customers in 2016 contributed to this surge.

## APAC Opportunities

Across Asia Pacific (APAC), the developments in Open Banking and open APIs are still very nascent. A case in point: there is still no single piece of legalisation or a homogenous government bloc policy, such as the PSD2 by the EU, which is driving Open Banking as yet.

However, many countries in Asia are cognisant of European and US-based developments, and have begun to make preparations towards embracing Open Banking through the implementation of open APIs.

While Open Banking is still new in APAC, a quick survey of the broader economic trends within the region will serve as a good indication for what is to happen in Open Banking in the next 2 years. Here is a snapshot of these:

- **Untapped 'unbanked' people of the world:** Globally, about 2 billion people do not use formal financial services and in ASEAN, there are 264 million adults who are still unbanked, according to the World Bank. This represents a huge pool of population for Open Banking to tap;
- **Millennial market potential:** More than half of ASEAN's 630 million population is under 30 years-old, with about 161 million of them between the ages of 15 and 29 years-of-age;
- **Willingness to embrace new technology:** A 2016 TRA survey of 3 ASEAN countries revealed that 71% of organisations in Indonesia intend to invest in online payments this year while approximately 40% will deploy mobile wallets. In Malaysia, 30% of organisations are the most likely to adopt crowd funding in 2016. And in Singapore, 33% of firms expect to adopt contactless payments in 2017;
- **More consumers turning to fintech providers:** A 2016 World Banking Report noted that among consumers, fintech players are as easy to use (82%), offering fast service (81%), and providing a good user experience (80%). They are also much more likely to refer friends and family to their fintech provider (55%) than to their bank (38%);

- **Small and medium enterprise (SMEs) financing:** Fewer than 60% of SMEs in Indonesia, Malaysia, Singapore, Thailand and the Philippines have access to bank loans, and approximately 50% of the SMEs are unserved or underserved by financial institutions, according to Deloitte;
- **Diversification from traditional FSI services:** EY noted in a 2016 survey that 40% of FSI customers expressed decreased dependence on their bank as their primary financial services provider and have used non-bank providers for financial services in the last year. Also, some 20% of customers who have not yet used non-bank providers plan to in the near future;
- **Growth in VC-backed fintech companies:** A UOB Bank report noted that in 2016, investments in the ASEAN fintech market increased to US\$252 million, compared with US\$190 million in 2015, a rise of about 33%. Total investment by September 2017 has already exceeded that of 2016 and stands at US\$338 million. Most of the funding in the region is from seed and angel investors.



# Open Banking: Status Update in Asia Pacific

We can broadly divide the Asia Pacific region into 3 classifications in terms of the development of Open Banking: 'Progressive' markets such as Singapore, Hong Kong and Australia; 'Developing' markets such as Malaysia and Thailand; and 'Nascent' markets such as Philippines and Indonesia. Here is a snapshot of Open Banking developments that are taking place in the major countries in each of these markets.

## Progressive Markets

### SINGAPORE

Singapore is considered one of the most advanced countries in APAC that have embraced open APIs. Beginning November 2016, the Monetary Authority of Singapore (MAS) and the Association of Banks in Singapore co-announced a 'Finance-as-a-Service' API PlayBook, which is designed to provide guidance to FSIs, fintech players and other interested entities in developing and adopting open API-based systems. As of November 2017, over 270 open APIs have been made available by Singapore's FSIs. OCBC was the first to do so in 2016 via a developer portal. Others such as DBS Bank and UOB are catching on. Some examples of the types of API categories being used are product APIs, sales & marketing APIs, servicing APIs, and transactional APIs.

**Key takeaway:** Singapore is likely to lead the way in ASEAN for Open Banking implementation due to its forward thinking regulations, competitive banking market, a large portion of the society who are driven by the use of technology, and relatively small population size with which to pilot Open Banking projects in a controlled environment. Also, MAS has made it clear about pushing the envelope in Open Banking and has declared that it wants to establish Singapore as a centre of excellence for APIs on financial services.

### AUSTRALIA

Australia commissioned its Open Banking review in July 2017 with the view of giving customers greater access to and control over their banking data, as part of a larger development of a national Consumer Data Right (CDR). This review process is also supported by the Reserve Bank of Australia. The review includes the type of banking data in scope, privacy and security safeguards for banking customers, the data transfer mechanism and implementation issues. This review has since been completed and full details can be found here.

Australia's federal government has imposed a phased implementation of Open Banking by July 2019 for the Big Four banks – ANZ, NAB, CBA and Westpac. The Prudential Regulation Authority has also attempted to break the stranglehold of the Big Four by granting the first restricted retail banking licence to a start-up, Volt. Macquarie Bank has already launched its open banking portal in September 2017, which allows its customers to securely move data to third parties.

According to a recent KPMG-Cambridge University-Monash University 2017 joint survey study, alternative finance companies across the Asia-Pacific reveals that Australia's alternative finance market including peer-to-peer lending and crowd-funding has grown 53% over the past 12 months, to become the second largest market in the region at US\$610 million.

**Key takeaway:** Given the recent regulatory developments and the maturity of the alternative finance market, it is highly likely that Australia will become a key market to lead the way in Open Banking in APAC.

### HONG KONG

Hong Kong has only begun consultation with the industry on Open Banking. In January 2018, The Hong Kong Monetary Authority (HKMA) issued an industry consultation paper – due for feedback by 2018 – on an open API framework, setting out its intended approach to open API for the banking industry in Hong Kong. The framework sets out a selection of open API functions and deployment timeframe, technical standards, third-party service provider governance, facilitation measures and the maintenance models.

As of March 2017, only Citi has launched 30 APIs covering 7 categories for developers wishing to work with the bank. Other banks in Hong Kong have yet to open up their APIs fully, with some conducting internal testing.

**Key takeaway:** Although only establishing its regulatory framework recently, Hong Kong is expected to ramp up in the area of Open Banking due to pressures from the market as well as the HKMA. As part of their banking liberalisation efforts, the HKMA is pushing for 7 initiatives – Open Banking being one of them – that aims to make that island state a 'smart banking' nation in the next 2 years.

## JAPAN

Japan is a complex market when it comes to banking in that while it's one of the most advanced in adopting certain financial products, it is slow in other areas – one of which is Open Banking. Case in point: Japan has amended its Payment Services Act just to adopt forward technological trends such as virtual currencies and have sought to regulate it, but have not advanced as much in the adoption of open APIs.

A 2017 EY survey of global fintech adoption placed Japan at 19th out of 20 global countries polled in terms of fintech adoption. In that survey, China and India lead, followed by UK, Brazil and the Australia. Similarly, the 2016 World Banking Report by EFMA and Capgemini rates Japan's fintech adoption at a mere 23.4%.

Japan's policymakers are set to change this. For starters, Japan's Financial Services Agency established a panel of experts on fintech startups in April 2016. From a legislation standpoint, changes were made to allow banks to own more than 5% shareholding of fintech companies, in a relaxation of what is known as the "5/15 percent" rule. In 2017, a bill was submitted to the legislature to amend the Banking Act 2018, which will allow the electronic banking settlement agency services to either give remittance instruction to banks or receive bank account information from a bank on behalf of account holders. This amendment was proposed because of the proliferation of fintech companies in the Japan market, which meant that policy makers would need to regulate such moves more closely.

Additionally, a report conducted the Study Group on FinTech, Japan's Ministry of Economy, Trade and Industry (METI), noted that Japan will promote the adoption of open APIs by banks and credit card companies. The METI has also committed to looking beyond the conventional practices of financial service providers, to consider how fintech can best serve individuals and companies. It has also drafted a comprehensive range of policy initiatives to nurture innovative fintech services and create a dynamic market environment aimed at attracting entrepreneurs and companies from around the world.

**Key takeaway:** Japan may be a little slow in embracing Open Banking via open APIs, but count on it to go big in the coming 18 to 24 months. Already, Nobuchika Mori, commissioner of the Financial Services Agency in May 2017, stated Japan's financial innovation will happen via the facilitation of open APIs. And just only in March 2018, Japan's financial services minister, Taro Aso, publically said it would consider how to change more legal framework so that all providers of financial services are subject to the same rules – a move that would allow fintech companies to compete directly with traditional FSIs.

Two of its biggest banks are reportedly seriously embracing the open API wave. The Nikkei Asian Review reported in early 2017 that Japan's Mitsubishi UFJ Financial Group (MUFG) is planning to allow TPPs to access its data securely by allowing them to request to use MUFG's APIs; Mizuho Bank has also reportedly committed to using open APIs to connect to fintech TPPs.

## Developing Markets

### CHINA

China's rise to become a powerhouse in fintech services is nothing short of amazing, driven primarily by these factors: A large penetration of internet and mobile usage; a growing middle - to upper - middle class; a large unbanked population relative to the size of the nation; and the wide usage of social and messaging platforms that enable cashless transactions for the unbanked.

As a result of these factors, China's journey with alternative finance began much earlier than those of its counterparts in APAC. Consider the following statistics: The China Internet Network Information Centre states that there are 731 million Internet users and about 695 million mobile users. The Economist reported that the total number of middle - to upper - middle income households, which earned between US\$11,500 and \$43,000 a year in 2016 stands at approximately 225 million compared to only 5 million in 2000.

Yet the World Bank states that there are a mere 9.6% of Chinese adults who had access to credit from a financial institution in 2014. It also noted in another report that China has about 11.6% of the total number of unbanked population globally. At the same time, China has largely bypassed cards and is jumping directly from cash to mobile. The number of mobile payment users leapt 64.5% in 2015, and nearly 60% of the country's 710 million Internet users were paying with mobile devices at the end of that year, noted an IMF study.

But China is only beginning to grapple with the impact of fintech on its people, society and industry. Being business-friendly but technically still a communist country, China's policy makers are still very conservative and keep a tight reign on fintech developments. For instance, whilst its mobile payments sector led by Alipay and WeChat Pay is flourishing, the People's Bank of China has banned organisations and individuals on initial coin offerings (ICOs). But at the same time, the government is cognizant of the influence of fintech and has officially established a fintech committee to enhance research, planning and coordination of the industry. It has also called for greater reforms in the light of these new developments.

In tandem with this, it has also recognised that its Belt and Road initiative that seeks to cooperate with other countries for common development, which invariably will include fintech services, including Open Banking and open APIs. China Banking and Regulatory Commission has indicated that it will ease caps on foreign ownership in Chinese banks (private banks excluded), financial asset management companies and apply non-discriminatory ownership limit rules. It will also allow for wider commercial presence choices of foreign banks to encourage a more diversified financial system.

**Key takeaway:** There's no doubt that China will be a huge influential player eventually in new approaches to banking via open APIs based on the aforementioned factors but for now, the country is taking a step at a time. To date, there are no official announcements about adopting APIs as a standard for driving reforms in banking. The API publication ProgrammableWeb noted that there are merely 35 APIs opened today in China, very few though in the finance category. Whilst various fintech services in general is growing within its border, China's approach to Open Banking will likely be to the tune of being 'cautiously optimistic' given its governmental structure and resistance to the more laissez-faire policies of the west.

The government is vigilant and will certainly be more circumspect about allowing open data to be shared freely across the country's banking system without establishing strict rules for doing so. Still, Banking regulators have also acknowledged that financial inclusion has improved over the last 15 years in China and will need continuous reforms, which calls for shifting the growth model toward a more market-oriented and commercially sustainable approach, including refining regulatory framework and instruments to address potential risks in digital finance.

Homegrown giants such as Alibaba Group, Tencent Holdings and Baidu will continue to push the envelope applying technology to banking by introducing everything from artificial intelligence to automation, and this will help spur innovation in open APIs as new startups set to meet the needs of the middle - to upper - middle class.

Some foreign entities are trying to break into the market early to spur fintech services by partnering with local entities. US-based companies DriveWealth (online brokerage), Robinhood (mobile-first broker), PayPal (online payments) as well as Denmark-based Saxo (asset investment) are some examples, noted EY in a recent report. More players are expected to enter in the next 3 years and this will hopefully augur well for Open Banking.

## MALAYSIA

Malaysia to date has no formal framework for Open Banking. However in 2016, its central bank, Bank Negara Malaysia issued details of its financial technology regulatory sandbox framework. The central bank says the regulatory sandbox — coordinated by the bank's Financial Technology Enabler Group (FTEG) — will enable the experimentation of fintech solutions in a live environment, subject to appropriate safeguards and regulatory requirements.

In June 2017, Malaysia's largest bank Maybank launched its regional collaborative fintech sandbox aimed at spurring opportunities for start-ups. It has since approved 4 fintech companies and allowed them to operate within its fintech regulatory sandbox. Other large banks such as CIMB Bank, RHB Bank and AmBank, whilst cognisant of the need to embrace Open Banking, have not made any public announcement of doing so.

**Key takeaway:** Malaysia is historically cautious in the area of banking but its newly appointed central banker is pushing new boundaries in fintech and by extension efforts in Open Banking. It has announced a clear roadmap for the publication of priority open APIs by the first quarter of 2018, which it has committed to doing. In fact, in March 2018, a fintech publication reported that Bank Negara's deputy governor Jessica Chew as saying that her agency has established an open API implementation group with members drawn from the banking industry, fintech community and key stakeholders to develop open API standards for the financial sector as part of efforts to broaden access and promote innovation and competition. She also told the publication that On open APIs Bank Negara conducted a survey last year found that more than half of banks and insurers in Malaysia indicated plans to roll out their own suite of open API interfaces in the near to medium term. The establishment of the group is aimed at drawing up a set of industry standards in a bid to prevent fragmentation and ensure best practice.



## THAILAND

Thailand currently has no formal open API regulatory framework but that doesn't mean its developments in the fintech sector is by any means slow. In December 2016, the Bank Of Thailand (BOT) launched its regulatory sandbox for products relating to loans, payment and fund transfers, and similar transactions. Similarly, the Security and Exchange Commission of Thailand (SEC) has launched sandboxes in 2017 targeting securities and derivatives businesses.

In tandem with this, fintech startups in Thailand have grown at such a rate that the Bank Of Thailand has expressed concern over the need to regulate these players. It aims to start doing so by requiring fintech start-ups to register with the regulator.

On the industry front, 8 banks in total have been given the green light to exit BOT's regulatory sandbox in December 2017, allowing these banks which have met all criteria to provide QR code payment services through Thailand's PromptPay system to the general public. This signals the evolution of e-payment systems within the country.

**Key takeaway:** Whilst there isn't an open API regulatory framework per se, the government is clearly demonstrating its willingness to support new fintech solutions to ensure the Thai FSI market becomes more competitive. The next big thing would be the government's push to enact a new Payment Systems Act, due in 2018, which will undoubtedly pave the way for frameworks such as Open Banking in the next 2 years.

## PHILIPPINES

In October 2017, Philippines' central bank (BSP) Governor Nestor A. Espenilla expressed his willingness to be open minded about the changes facing the banking industry and pledged to allow non-banks to pilot various fintech innovations in the country.

At present, there isn't a formalised Open Banking regulatory framework in the Philippines but the BSP is doing its own experimentation in what it calls a 'test and learn' approach, which is essentially a sandbox concept. Currently, the BSP is exploring an API system to connect the FSI providers to the BSP, and dubbed it 'Regtech.'

Philippines' Union Bank is one organisation that has already implemented open API, and is expected to expand the programme over time.

**Key takeaway:** Philippines has a history of innovation in financial services, as exemplified by the BSP trying out micro financing as early as 2000. In 2015, it launched its National Retail Payment System (NRPS), and interoperable digital payment ecosystem aimed at making it convenient and affordable to transfer funds between and among accounts using any digital device. BSP has said the NRPS will facilitate its transition to a cash-lite economy.

Its main impetus for modernising its financial services is tied to an overall government policy to improve financial inclusion in the country as only 31% of the Philippines have access to a bank account. Whilst it's not quite there yet with an Open Banking framework, it is expected to catch up very quickly in this area in the coming years.

## INDONESIA

Indonesia established a Fintech Advisory Forum, which is aimed at setting the direction for the country's fintech industry's development. The country's financial services authority (OJK), which leads the Forum, said this will facilitate and ensure smooth, consistent, and constructive coordination between agencies, ministries, and relevant parties, and Fintech startup players.

Late last year, the OJK told local media that it would issue a regulation on fintech businesses by March 2018 due to the burgeoning developments in the sector.

**Key takeaway:** Like all other ASEAN nations experimenting with Open Banking, Indonesia is expected to move in the same direction, proceeding cautiously but urgently. The playbook for Indonesia is similar to Philippines, which has made tangible efforts in drafting an Open Banking regulatory framework; all these countries have set up a special interest group within the regulator and proceed to roll out a sandbox for which fintech start-ups can experiment with. Eventually, like the other more advanced countries, it is expected that they would look at Open Banking within the next 2-3 years.

# Open Banking: It's About Symbiosis

While it's clear Open Banking is still advancing in Asia Pacific with banks being challenged by fintech firms, it is not all doom and gloom for the former. The truth is that the two groups are not necessarily diametrically opposite to each other as per the disruption mantra the industry would have you believe. In fact, Tech Research Asia (TRA) believes that Open Banking should be viewed as a win-win situation between banks and fintech firms. There are 3 reasons for this.

Firstly, fintech firms are naturally more innovative because they do not have legacy issues, nor established regulation and compliance rules to hold them back. They are able to start from a clean slate, addressing current challenges faced by the market directly without having to worry about supporting existing products and services or complying with dated bureaucratic processes. They are simply more agile and have a clear culture of failing fast and iterating as fast as they can, something that banks aren't able to do as quickly due to the highly regulated nature of the industry.

Secondly, not having these legacy issues also means that fintech firms are able to leverage new technologies in how they design their products and services – all focusing on enhancing the customer experience. Augmented reality/virtual reality, artificial intelligence, chatbots, robo-advisory, and the gamification of apps, mobile payments and enhanced data analytics are but some examples.

Lastly, while fintech firms clearly have the advantage in the origination, development and the evolution of products and services, they aren't without impediments. Fintech firms lack financial resources to scale as most of them are start-ups; they may lack an element of trustworthiness due to being new; they do not have long standing, trusted relationships with a broad customer base; and they generally lack operational and regulatory expertise – all of which are what reputable banks have. This is back by a report by the World Retail Banking report for 2017, which stated that only 23.6% of customers say they trust their fintech provider compared to 36.6% for traditional firms. It also added that customers of traditional financial institutions still hold some advantage over fintech providers when it comes to fraud protection, quality of service, and transparency.

On the whole, there is more to gain for the two parties to collaborate together rather than to compete with each other. However, effective partnership between the two can only be achieved if both parties are able to leverage off each other. TRA believes that the underlying trust that can be established between the FSI and fintech firms comes through tapping on open API frameworks.



# Open Banking: Customers Benefit

At the centre of Open Banking is the customer, and the collaboration between banks and fintech firms aims to enhance every aspect of the customers financial experience in today's modern age. With fintech firms' abilities to innovate and banks' resources and broad customer base all tied together via a strategic implementation of open APIs, customers benefit most. What are some of these benefits? Here is a shortlist of some:

- When Citi implemented its open API framework and made it public in Singapore, an online concierge called honestbee was empowered to allow its customers to apply for a Citi Cash Back card on its website and mobile app allowing a seamless card application process via Citi's merchant partners' sites.
- When Singapore's OCBC Bank published its 4 open APIs in 2016, one of the clear benefits to OCBC customers was that they were able to use a dining guide app to locate the nearest OCBC ATM to the restaurant they were dining at so that they could withdraw money if necessary. Also, customers could be given recommendations on which OCBC credit card they might best use at a given restaurant and get a rebate of up to 6% cash back on weekend dining.
- When Macquarie Bank in Australia opened its API to its customers in September 2017, it allowed them to integrate their account information with a personal finance software called Pocketbook. This made it possible for the customers to get real-time view of their budgets and manage them properly. Owners of SMEs can also get all their accounts, insurance, loans in one dashboard, without having to feed data in via files.

End users aren't the only ones who benefit. As customers or partners of fintech firms, banks, also benefit. Here are some ways in which they do:

- With a proper implementation of open APIs, banks can seek to monetise data they possess such as savings, loans, mortgage credit cards, to fintech firms either in raw form or some form of pre-processed manner, such as credit scoring.
- With open APIs, banks can use the information derived to monitor customer spending patterns; reduce guesswork when doing promotions; deploy machine learning-based systems so that they can have a complete view of their customers' investments; advance know-your-customers efforts and the assessment of customers' risk profiles or real-time remuneration potential to develop better cross-selling opportunities.

By having an open APIs framework, banks could tap on the brightest minds by organising and participating in hackathons in order that new products and services can be 'dreamt up' by the developer community. Barclays, Citi in partnership with IBM, and RBS have all experimented with such initiatives in the last 2 years.





# Open Banking: A Checklist

This paper argues that Open Banking is the future of banking. The FSI around the world are being forced to reckon with this trend by legislation and by market forces. Thus it would do well to not only recognise this but to act now or risk facing disintermediation – being left out of the banking value chain they have been so used to controlling. While fintech firms have advanced quite a bit in the last 2 years, it's not too late for the FSI, especially banks, to mitigate against this trend in APAC. But they will need to act now, as the next 3 years will be crucial to how they prepare for their future. What can they do? Here is a checklist to consider.

## About Your Circumstances:

1. How educated is your entire organisation on the subject of Open Banking and open APIs?
2. Is there a concerted top-down-driven, board-level effort to understand Open Banking and the top-down will to deploy it organisation-wide?
3. When was the last time you undertook to review your customers' experiences by speaking to them to find out what they want from your organisation?
4. Have you surveyed what fintech firms are offering and evaluating what are areas in which they're beating you in the financial game?
5. Have you considered investing and taking a stake in fintech firms you believe can help you grow into Open Banking?
6. Have you established a strategic team to look into how you can identify and work with potential fintech firms in the markets you operate in?
7. Have you identified a lean end-to-end digital team that is able to tactically drive your strategic Open Banking agenda, cut through any bureaucratic processes to achieve your aims?
8. Have you co-opted the millennial generation in your organisation and tapped them for creative ideas in your Open Banking journey? Have you made them internal ambassadors to champion Open Banking within your organisation?

## About Technology

1. Have you established a tech team that has a leader who has a seat at the board/top management to ensure that strategic Open Banking plans can be pushed, tracked and implemented?
2. Are you able to fast track your adoption of Open Banking by leveraging your existing technology partners to do so?

3. Have you identified the right vendors that can help you in your Open Banking journey?
4. Have you undertaken a detailed audit of how your organisation collects the data, and how it can be leveraged for your Open Banking journey?
5. Have you established a lean, agile IT team that is able to deploy open APIs in a concerted manner?
6. Are these teams empowered with exploratory and experimental powers to deploy pilot testing across a controlled banking environment?

## About Governance

1. Are your regulatory and compliance teams up to date with the developments in Open Banking and open APIs?
2. Have you established strategic plans to govern Open Banking within your organisation?
3. Have you ensured that you have a representative voice in government agencies and/or organisations promoting Open Banking initiatives in order to drive your agenda?

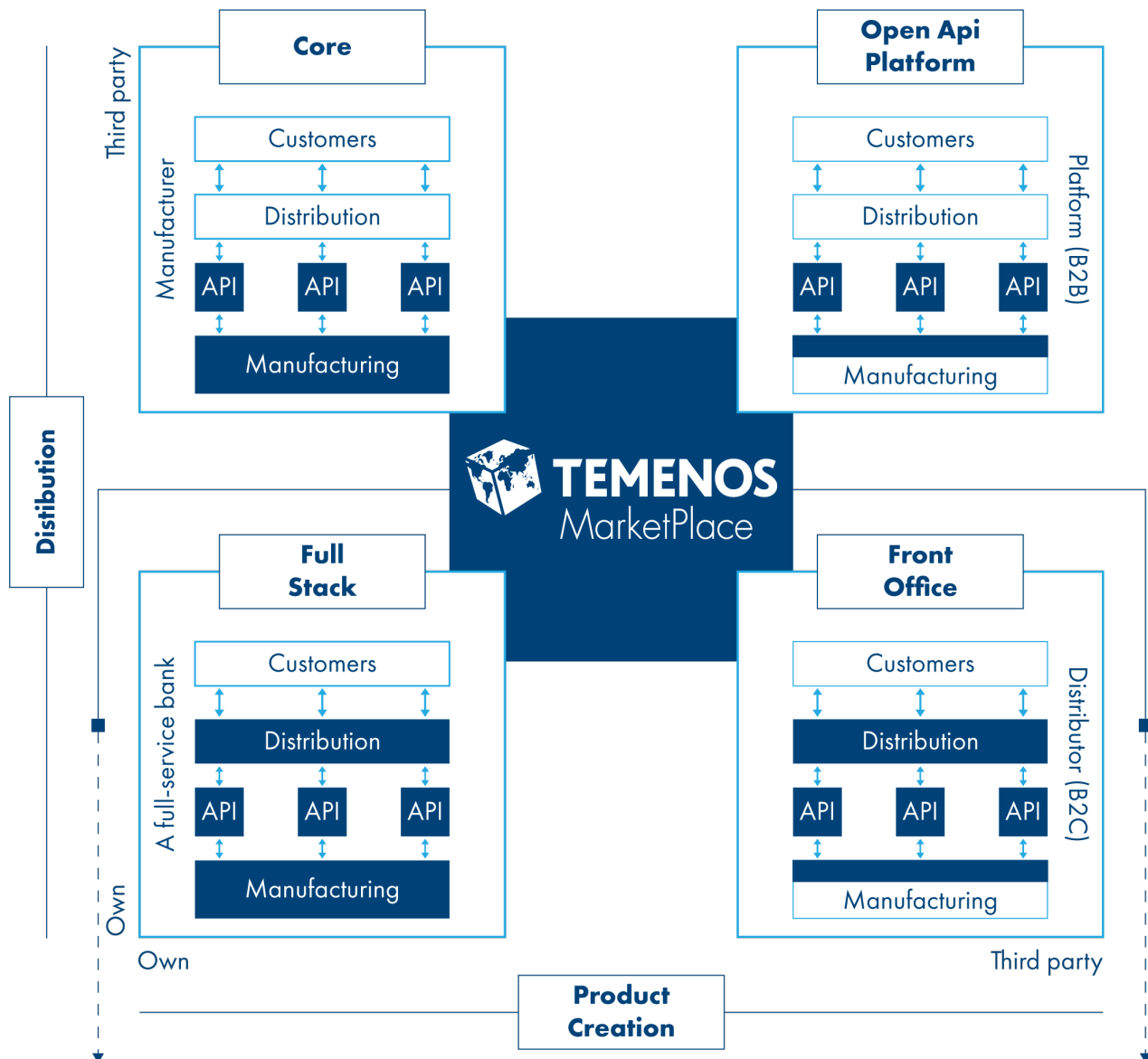
## About Security & Privacy

1. Have you undertaken a comprehensive process to evaluate what kind of impact Open Banking will have on data security and customer privacy?
2. Have you undertaken a detailed review of your security and privacy processes in the light of Open Banking?
3. What would Open Banking do to your security compliance and regulatory regime?
4. Are your teams engaging with the relevant central banks and financial authorities to keep abreast with developments?
5. Are you ensuring that your security and privacy framework is being communicated as easily as possible to your customers and would-be customers in the light of Open Banking?



# How Temenos enables Open Banking

Temenos supports all the new open banking business models.



All these models are enabled through Temenos' API's and tooling for banks to create new/customise API's. Temenos also provides its own ecosystem, MarketPlace which means banks don't have to curate these partnerships themselves.



## About Temenos

Temenos AG (SIX: TEMN), headquartered in Geneva, is the world's leader in banking software, partnering with banks and other financial institutions to transform their businesses and stay ahead of a changing marketplace. Over 3,000 firms across the globe, including 41 of the top 50 banks, rely on Temenos to process both the daily transactions and client interactions of more than 500 million banking customers. Temenos offers cloud-native, cloud-agnostic front office and core banking, payments, fund management and wealth management software products enabling banks to deliver consistent, frictionless customer journeys and gain operational excellence. Temenos customers are proven to be more profitable than their peers: over a seven-year period, they enjoyed on average a 31% higher return on assets, a 36% higher return on equity and an 8.6 percentage point lower cost/income ratio than banks running legacy applications. For more information please visit [www.temenos.com](http://www.temenos.com).



## About Tech Research Asia

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