



AUGUST 2018

OPEN API FRAMEWORK

WHAT HONG KONG HKMA'S
PROPOSAL MEANS FOR BANKS

The Asia-Pacific Circle Insights

THE BOTTOM LINE

On July 18th, 2018, the HKMA released its Open API Framework as a means to promote the development of Hong Kong's banking and financial services industry. The initiative has been commented widely, and the idea that new applications will now be made available is often used as a conclusion.

In this Asia-Pacific financial insight, Antoine Martin goes through the HKMA's Open API Framework document to explain its ins and outs. After a careful analysis of the document, he concludes that the stakes are much higher than mere flexibility. Especially considering the regulatory and financial burden to be imposed on banks.

HKMA Open API Framework: What it Means for Hong Kong Banks
(August 2018)

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ANALYSIS BY
ANTOINE MARTIN

INTRODUCTION

On July 18th, the HKMA released its Framework for the use of Open Application Programming Interfaces (APIs), an initiative widely approved by Hong Kong's banking and financial industry. This move by the HKMA towards Open API facilitation in the Hong Kong Banking sector was not a surprise. On September 29th, 2017, the HKMA had indeed announced that Hong Kong would enter 'a new era of smart banking' through seven initiatives, including the creation of frameworks for virtual banking and for third-party API development ([link at the end](#)).

From a policy perspective, the Smart Banking Era has a simple goal, i.e. "stimulating innovations and improving financial services through collaboration between banks and tech firms". Hence, the HKMA has rapidly put the announcement to practice.

During the first half of 2018, on the one hand, it has elaborated a revised Guideline on Virtual banks aimed at creating a favorable environment for the development of smart virtual banking. At the same time, the HKMA has also elaborated a framework for the development of Open APIs. In January 2018 a Consultation Paper on Open API Framework for the Hong Kong Banking Sector ([available here](#)) has collected feedback from the city's

banking industry and from its information and communications technologies (ICT) sector. On July 18th, the final framework was eventually released.

The answer from Hong Kong's financial industry has overall been very positive. According to a press release by the HKMA, the consultation process generated forty-one responses from banks, technology, payment and fintech companies but also consulting firms and industry associations. Those comments were so constructive and forward-moving, in fact, that HKMA Chief Executive Norman Chan eventually presented Open APIs as "one small step for a bank, but a milestone for financial innovation in the banking sector".

The question is therefore the following one:
what are the ins and outs of the HKMA's Open API Framework for Hong Kong?

1. THE STAKES

HONG KONG, OPEN API, AND OPEN BANKING: THE STAKES.

The stakes behind the launch of an Open API Framework in Hong Kong are high. Beyond the technical term, Open APIs are about encouraging and further facilitating the offer of financial services to the public by making a variety of banking data accessible to financial services providers and innovators. App makers and financial facilitators, in sum.

Open API as a source of financial diversification for Hong Kong.

Long things short, Open API system and open banking will permit procedural simplifications by cross-referencing databases.

While banks normally hold extremely confidential the information provided by their users, creating data bridges with Third party Service Providers (TSPs) according to a set of known and standardized rules will create a new range of possibilities.

Data would be accessible more easily. And the ability of consumers to access new services and applications would increase. For instance, wealth management apps could be connected to our personal finances.

Alternatively, personal finance management apps would gain easier access to our various bank accounts.

In both cases the new services would be made available without creating a burden on the end-user because the APIs would do the work.

Publically available data (bank branch information, financial products details) would be easily accessible through standardized databases.

Private data (personal transaction, banking history, etc.) would still be stored by the financial institutions, of course. But they would also be made available to a list of certified Third-party Service Providers (TSPs) authorised to plug into the banks' databases to extract selected information.

The third-party would therefore have the possibility to offer a set of services to the client depending on the set of available information. In turn, the end-user would gain access to a new range of services (in the form of apps) which so far had remained locked-out.

Open APIs are already there

Examples of such services can already be found on the market. Logging-into our favorite websites using our Gmail or Facebook accounts is very common. Numerous hotel and flight booking apps and websites already access the databases of flight companies and hotels to offer the best deals to their clients. In the case of open banking, the difference would be that the data relied upon would originate from banks. Instead of comparing hotels, the consumer would compare permanently updated banking products. Or they would manage multiple bank accounts from a single app.

In Hong Kong, for instance, Citibank has announced in 2017 that six API partnerships had been signed to "enhance consumers' banking and transactional experience with ease and freedom" by making available "easy and speedy banking services in response to consumers' increasingly digital lifestyle". The applications are diverse, but they will allow City clients to pay with their credit card reward points on online shopping platforms, or to reduce the time required to make a Financial Needs Analysis when the clients apply for financial products with the AIA insurance company. Collaboration is also announced in relation to the widely used Octopus card, including instant top-ups. In sum, the range of possibilities is wide.

Hong Kong urgently needing an Open API and open banking framework?

Generally speaking, however, Hong Kong is not very advanced when it comes to API and open banking developments.

The previously mentioned examples are used here and then for illustrative purposes but otherwise, commentators generally describe Hong Kong as the lagging-behind city. When assessing industry readiness, in fact, the HKMA notes a significant disparity between banks. Some have already launched Open API infrastructures - mainly for internal use - whilst others have no plans at the moment.

As a result, potential developments happening in relation to the HKMA's open API framework could have a positive impact on Hong Kong's increasingly digital economy.

By creating converging standards, more cross-bank and cross-app services could be developed. App developers would have an incentive to propose innovative solutions. And consumers would benefit from additional services provided that the service providers conform to the standards.

The question is... how?

2. THE FRAMEWORK

THE HKMA'S OPEN BANKING AND OPEN API FRAMEWORK.

The open banking and Open API framework is the HKMA's solution to the problem.

After setting up a virtual banking regulation over the summer, the Hong Kong regulator now turns to create a specific framework for facilitating Open API developments. The move is obviously part of the various efforts conducted by the HKMA to turn Hong Kong into a regional Fintech Hub. The idea of developing open banking and Open API systems was indeed discussed last summer as part of the FSDC Report on the Future of Fintech in Hong Kong and it is clearly a strategic element in Hong Kong's financial leadership competition with Singapore.

As far as the HKMA is concerned, the role of the Open API framework is threefold:

- (1) to "ensure the competitiveness and relevance of the banking sector";
- (2) to "provide a secure, controlled and convenient operating environment to allow banks and their partners, to work together and develop innovative/integrated banking services that improve customer experience"; and
- (3) to "keep up with worldwide development on delivery of banking services".

To achieve the attended results, the HKMA has defined the following Open API framework:

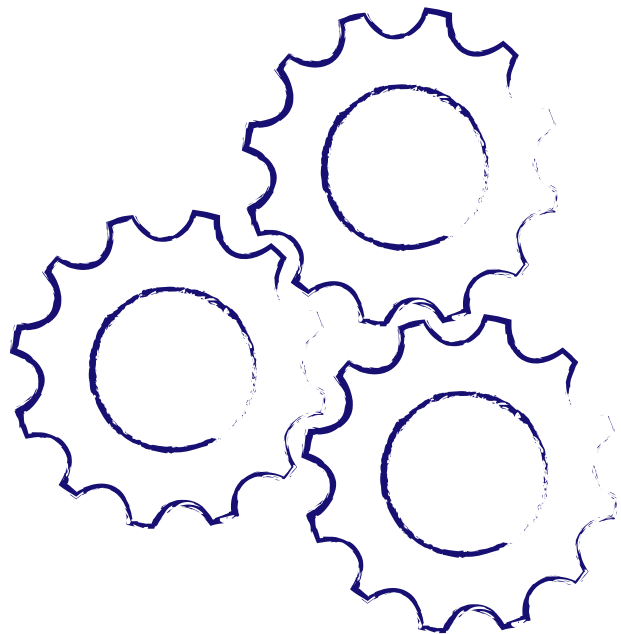
- Open API functions and deployment timeframe;
- Open API technical standards on architecture, security and data;
- Open API TSP governance model;
- Open API facilitation measures;
- Open API ongoing development.

OPEN API FRAMEWORK PART 1: CONVERGENCE ON API FUNCTIONS BUT NO STANDARDIZATION.

The consultation process pointed to a consensus on the idea that a form of standardization is necessary 'for better interoperability'. In its January document, in fact, the HKMA noted that twenty-one out of twenty-three banks supported the idea of creating standardised - as in "exactly the same" - API protocols among banks "so that third party service providers (TSP) only need to develop their software once" and allow connecting "all banks without the need for further customisation".

Nonetheless, the Open API Framework will focus on convergence rather than standardization.

The HKMA has explained this position in its Framework document. First, standardization methods putting constraints on the banks would go against the efforts already put into place by several of them. Second, opinions emanating from the technology participants suggested that to "quickly offer" Open APIs made more sense than waiting for new Open APIs to be made on the basis of not-yet-designed standards. Third, the participants also agreed that standardization would likely occur as an answer to market needs over time.



Open API Categories defined.

The HKMA has nonetheless developed "a set of high-level Open API functions" in answer to the participants' conclusion that it would be necessary to "categorise" and "prioritise" the types of Open API to be implemented in the future.

The proposition is in line with the 'no standardization' decision and flexibility appears to be the main objective. However, the participating banks remain free to adopt those recommendations (and to implement theirs) as they deem fit. Hence, four categories of frequently-used Open APIs have been identified, each requiring its own level of security systems:

- **Phase 1: Product and service information** - also described as "Read-only" data provided by banks to detail their products and services;
- **Phase 2: Subscription and new applications for product/service** – data which facilitate the customer acquisition process by allowing online submissions/application of credit cards, loans or other bank products;
- **Phase 3: Account information data** – private data required for the retrieval and alteration of account information of authenticated customers (balance, transaction history, limits, payment schedules, etc.);
- **Phase 4: Transactions data** – Banking transactions and payment or scheduled payments/transfer initiated by authenticated customers

Phase I - Product and service information

Core-banking functions			Others	
Deposits	Loans	Other banking services	Investments	Insurance
- Retrieve saving account product details - Retrieve current account product details - Retrieve time deposit product details - Retrieve foreign currency account product details	- Retrieve credit card product details - Retrieve mortgage loan product details - Retrieve unsecured loan product details - Retrieve secured loan product details	- Retrieve safe deposit box product details - Retrieve branch and ATM information - Retrieve foreign currency exchange rate	- Retrieve retail investment fund product details - Retrieve structured investment product details - Retrieve precious metal product details - Retrieve stock trading product details	- Retrieve general insurance product details - Retrieve life or long-term insurance product details

Phase II – Subscription and new applications

Core-banking functions			Others	
Deposits	Loans	Other banking services	Investments	Insurance
- Process saving account opening request - Process current account opening request - Process time deposit creation request - Process foreign currency account opening request	- Process credit card application request - Process mortgage loan application request - Process unsecured loan application request - Process secured loan application request	Process safe deposit box application	- Process investment funds account opening request - Process precious metal account opening request - Process stock account opening request	- Process general insurance application request - Process life or long-term insurance application request

Source: HKMA

Phase III – Account information

Core-banking functions			Others	
Deposits	Loans	Other bank products	Investments	Insurance
• Retrieve deposit account details • Retrieve deposit account transaction details • Process time deposit maturity instruction	• Retrieve credit limit details • Retrieve credit card payment due date • Retrieve credit card outstanding payment details • Retrieve credit card transaction details • Retrieve outstanding loan details • Process credit limit increase request • Process credit limit decrease request • Process report credit card loss request • Process loan term change request	• Retrieve bill payment history • Process EBPP registration request • Process EBPP de-registration request • Retrieve registered electronic bill details and payment history • Retrieve customer contact information • Process customer cheque book request	• Retrieve retail investment fund holdings information • Retrieve precious metal holdings information • Retrieve stock holdings information • Process customer instructions on corporate actions for stock holdings	• Retrieve general insurance policy details • Retrieve life or long-term insurance policy details • Process non-financial policy change requests

Source: HKMA

Phase IV – Transaction

Core-banking functions			Others	
Deposits	Loans	Other bank products	Investments	Insurance
• Process fund transfer request • Process e-Cheque issue request • Process e-Cheque deposit request • Process stop payment of issued cheque request	• Process credit card loyalty reward point redeem request • Process credit card cancellation request • Process credit card repayment request • Process loan repayment request	• Process bill payment request • Process electronic bill payment request • Process direct debit authorisation setup request • Process direct debit authorisation cancellation request • Process customer maintenance request of overseas ATM cash withdrawal limit • Process customer contact information update request	• Process retail investment fund transaction orders • Process precious metal transaction orders • Process stock trading orders	• Process financial policy change requests • Process claim request

Source: HKMA

Progressive implementation

The four categories of Open APIs listed previously have been defined taking into account the usage frequency of the data. But the categories also reflect the degree of importance of such data. Hence, the Open API framework provides for a guideline in terms of implementation priorities.

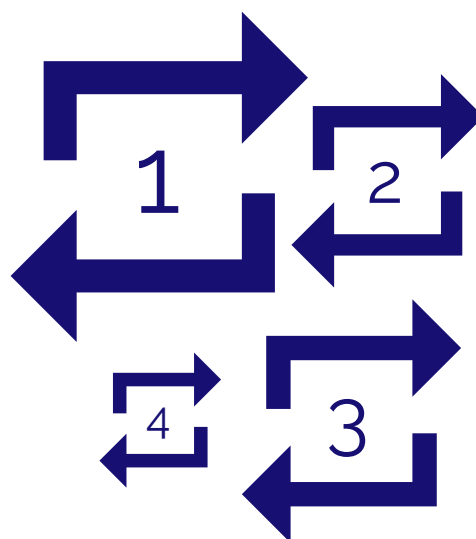
The purpose here is to encourage the implementation of the most obvious Open APIs. Eventually, focusing on the most common Open APIs first also means that the operators will have more time to put research and development efforts into place, thus increasing security for the release of more sensible APIs.

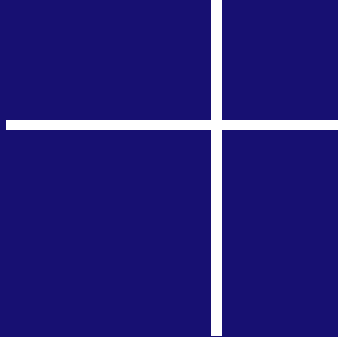
As far as Phase 1 is concerned (Product and service information), the HKMA expects the participating banks to release their roadmap within two months following the publication of the Open API Framework (September), and to deploy the core-banking Open API functions within six months (December).

Roadmaps on the implementation of Phase 2 (subscription and new applications Open APIs) must be submitted to the HKMA within eight months following the publication of the Open API Framework (March 2019). These Open APIs then ought to be up and running between twelve to fifteen month following the

publication of the Open API Framework (summer 2019). However, the HKMA insists that it "will leave it to banks to decide on the level of automation and the technology they would adopt to handle new applications having regard to their risk appetite, business priority and maturity of technology".

The timelines for Phase 3 and Phase 4 is not decided yet and will have to be set out within a year.





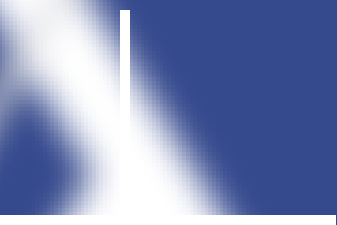
**6
MONTHS**

**TO DEPLOY THE CORE-BANKING
OPEN API FUNCTIONS (PHASE 1)**

**12-15
MONTHS**

TO IMPLEMENT PHASE 2

banks to determine the level of
automation and the technology they
would adopt.



OPEN API FRAMEWORK PART 2. USE OF TECHNICAL STANDARDS ON ARCHITECTURE, SECURITY AND DATA.

The second aspect of Hong Kong's Open API Framework relates to technical standard on architecture, security, and data. Here, the HKMA has noted two important elements. One is that there is a consensus on the need to adopt common technical standards. The other element is that such standards also ought to be in line with the various standards adopted internationally:



"All banks agreed that international or industry technical standards should be referenced and used whenever possible. These could include areas such as architecture (how to connect between systems), security (authentication, integrity, confidentiality and authorisation protections), and data definition (how to interpret information accessed)".

"There appears to be a general consensus on architecture and security from the three jurisdictions (Japan, Singapore and the UK) that have published the relevant Open API standards. It is believed that such standards are a reflection of the industry norm or best practice, and therefore can be implemented practically. It is therefore recommended to follow similar standards as detailed under Annex B."

The details regarding the various standards are then provided in Annex B of the Open API Framework, as follows.

- Architecture:



"Architecture refers to how TSP website or mobile applications connect to banks' Open APIs. Representational State Transfer (REST) and Simple Object Access Protocol (SOAP) are two common communication protocols in use for Open APIs. Under these respective communication protocols, data formats of JavaScript Object Notation (JSON) and eXtensible Markup Language (XML) are usually used. Due to their practicality and wide acceptance by the industry, REST is recommended as the communication protocol and JSON as the data format."

- Security:



"For authentication of bank site and TSP, and integrity and confidentiality checks of data transmitted, properly registered and configured X.509 digital certificate is recommended to ensure that product and service information is extracted from genuine bank sites. TLS, on the other hand, provides integrity checking and encryption protection to the data being transmitted, regardless whether it is transmitted from bank to TSP or vice versa. These security practices/standards are generally required by the UK Open Banking initiative, the MAS Playbook and the JBA. Banks should continue to use their own authentication methods (such as username/password and two-factor authentication where appropriate) for bank customers while OAuth 2.0 is recommended as the authorisation method as it is an industry standard and suggested by the UK Open Banking initiative, the MAS Playbook and the JBA."

- Data:



"In addition to these prescribed security measures, banks should also observe any relevant risks and controls over the use of technology with applicable internal and/or HKMA guidelines to safeguard bank and consumer data. For data standard, OFX is recommended for relevant Open API functions such as those related to account information. However, it is acknowledged that OFX is not widely used, so [...] Banks are free to use their own data descriptions for data standard. In any case, banks should publish their data definition (often called "data dictionary") using industry practice such as OpenAPI Specification (also known as Swagger)."

- Due Diligence:



"While certain technical standards have been prescribed, they cannot be considered as the only standards that cover all security requirements. Banks should always make reference to industry sound practices, relevant regulatory and internal requirements, and apply holistic controls on information and cybersecurity based on a risk- and principle-based approach to protect banks' systems as well as bank and consumer data. To help speedy and timely implementation, banks may decide their own data specification."

OPEN API FRAMEWORK PART 3: THIRD PARTY SERVICE PROVIDERS (TSP) CERTIFICATION

The third aspect of Hong Kong's Open API Framework relates to the certification of Open API Third-party Service (TSP) providers. The objective is obvious here, i.e. ensure that the providers who are given access to bank data are subjected to a form of TSP certification in terms of due diligence, monitoring and contractual engagement.

Progressive implementation

The format of the certification scheme has been the object of discussions, however. Under the January Open API framework document, the HKMA noted that amongst the fourteen banks that expressed an opinion, eleven asked for a central entity acting as a TSP certification body allowing to coordinate the process once and for all.

In its final Open API Framework document, in contrast, the HKMA wrote that "in order to strike a balance between innovation and customer protection, it is preferred that TSPs offer solutions under a partnership arrangement with banks". Hence, instead of a central certification body the HKMA is creating a burden of "TSP governance [covering] activities such as due diligence, onboarding, control, monitoring, roles and responsibilities,

consumer protection, data protection, security, infrastructure resilience, and incident handling", that banks will have to deal with.

The move is justified by its ability to provide "maximum flexibility" and the banks are given wiggle room to establish and agree on "common baselines" regarding assessment benchmarks and onboarding checks. They are also left responsible for selecting the TSPs depending on their own standards and risk evaluation requirements, even though the possibility to conduct common proceedings is also made available. In other words, Open API Governance is likely to fall on the banks themselves.

Starting with Phase 1 & Phase 2.

The burden of responsibility is detailed more specifically for Phase 1 and Phase 2.

Regarding Phase 1 (Product and service information data), the HKMA "expects banks to have a simple registration process in place for consumer protection purpose" which "should not be used to impose unnecessary requirement to create entry barriers". Furthermore, the regulator leaves to the bank to "plan the necessary capacity on the

infrastructure" while ensuring consumer protection in relation to data management. To this extent, the banks will be responsible for guaranteeing that the TSPs play by the rules. In the HKMA's words:



"[...] banks should require TSPs (i) not to misrepresent banks, (ii) to make it explicit to their customers that the collection of personal data is neither carried out by banks nor directly related to bank business, and (iii) comply with the applicable laws and guidance on the protection of personal data."

Regarding Phase 2, "the HKMA expects that the industry will therefore put in the necessary efforts [...] to develop and finalise the common baseline before Phase II implementation [in order] to facilitate and streamline banks' engagement with TSPs [...] and create a level playing field'. The regulator also provides a set of requirements to be used as benchmarks by the banks:



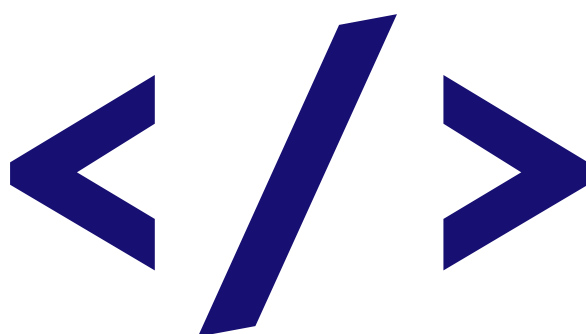
"The common baseline should therefore aim to simplify and encourage adoption of Open APIs by the banks with TSPs, and allow a greater variety of services and convenience that is beneficial to the customer. It is therefore in the interest of the banking sector to agree on the scope (a list of questions and requirements) of the common baseline as far as possible and endeavour to minimise any additional requirements."

OPEN API FRAMEWORK PART 4: FACILITATION MEASURES

The HKMA has rejected the idea of a central certification body, but it will facilitate Open API developments through the creation of a central API repository, also described as 'a single point of reference' or 'dashboard'.

This body is planned as a way to "facilitate ease of access by TSPs" and should be organized by the Data Studio of the Hong Kong Science and Technology Parks. However, the Open API Framework leaves the door open to banks willing to use their own repositories as well.

From a maintenance perspective - in the long-term, that is - the HKMA also plans for the creation of "a body to review the relevance of the architecture, security and data standards on an ongoing basis [as well as] other industry-wide tasks, such as coordination and consumer education, where needed".



3. BIG PICTURE

THE HONG KONG OPEN API FRAMEWORK FOLLOWING AN INTERNATIONAL TREND.

It is interesting to note that the Open API Framework established by the HKMA does take into account the other Open API initiatives internationally.

As mentioned previously, some of the standards emphasised by the HKMA insist on the necessity to operate in line with these initiatives to encourage a broader compatibility and use of Open APIs. Other than that, the HKMA also acknowledges the progress made in the other jurisdictions.

UK, EU, Japan and Australia.

In the UK, the HKMA notes that an Open Banking initiative has been put into place by the Competition and Markets Authority since 2016, with framework extensions since late 2017 to enable banking connection with credit cards, e-wallets and prepaid cards. There, however, an 'implementation entity' has been created to 'whitelist' TSPs before they are given access to the banks' data.

In Europe, the PSD2 framework is described as "the legal foundation for the further development of a better integrated internal

market for electronic payments within the EU" and, whilst it does not mention Open API, "seeks to require banks to grant third-party providers access to a customer's online account/payment services in a regulated and secure way".

As far as Australia is concerned, the HKMA notes that the Australian Reserve Bank only recently released its final Open Banking review report (February 2018), "making 50 recommendations on the regulatory framework, the type of banking data in scope, privacy and security safeguards for banking customers, the data transfer mechanism and implementation issues".

Following an amendment to the Japanese Banking Act in May 2017, the HKMA noted in January that Japanese banks would be "required to announce support on Open API by March 2018 and have it deployed by middle of 2020". It noted, also, that "banks and TSP would need to refine or agree on the actual function and control measure during implementation". In Japan, however, the scope of application of the Open API framework is expected to be much narrower than in Hong Kong as it would only cover

deposit-related activities in account balance inquiries, account activity inquiries and interbank transfers.

Singapore ahead.

In contrast, the HKMA notes that Singapore appears to be far ahead of the competition. A 'Finance-as-a-Service: API Playbook' was released in November 2016 by the Monetary Authority of Singapore (MAS) and the Association of Banks. It identified and categorized more than 400 APIs covering various financial actors including insurance, asset managers and even governmental agencies. It is emphasized, however, that the Playbook does not cover topics such as TSP certification and ecosystem development or maintenance. An API exchange (APEX) has also been developed last year.

Since the introduction of the PlayBook in 2016, Singapore has embraced and developed API based solutions. In late 2017, the Government Technology of Singapore built an API exchange (APEX) to serve as a centralised data sharing platform. Government agencies across Singapore can utilise APEX to share data securely in real-time through the use of APIs.



4. IMPACTS

HOW HK POSITIONS ITSELF, WITH WHAT IMPACTS.

Interestingly, the above means that while Hong Kong is compared to an innovation turtle by some Fintech commentators, the HKMA positions itself as one of the few and promising frameworks supporting the development of Open APIs. The question is, what does the Open API framework really mean for Hong Kong Banks?

A liberal financial place welcoming Open APIs and Open Banking.

On the one hand, Hong Kong is being promoted as a looking-forward Open API financial place. Simply put, the HKMA insists that Hong Kong's Open API Framework is more comprehensive than that of Singapore and it dissociates itself from "the mandatory approach" adopted in the EU, the UK and Australia.

Instead, it promotes Hong Kong as a liberal financial place in which "flexibility in implementing Open API" is aimed at supporting the banks' business strategies, where the priorities "have been selected on the basis of their potential benefits to banks and customers", and where "existing international or industry practices have been leveraged".

A heavy regulatory burden.

On the other hand, flexibility for market efficiency purposes comes at a price called 'TSP governance' for the banks. The HKMA talks about empowering the banks to ensure the "speedy" implementation of the framework, but reading the documents leads to conclusions that most commentators have missed. As emphasised several times in this Insight, the HKMA indeed "expects" banks to put a variety of systems in place.

While the preliminary document from January suggests that the participating banks asked for a TSP Certification central body to be created, the regulator has opted for another option, i.e. TSP certification by the banks themselves.

The bank must appoint "their own accessors to carry out the common baseline assessment for them". They must ensure that the systems they put into place do not create "barriers to entry", which means that they also ought to implement the fair competition dimension of the Framework. The Open API framework also creates a burden on the banks to ensure that the TSPs' use of the data is in line with consumer protection law... which implies that contracts between the banks and the TSPs could substitute to a non-existent regulation.

Also worth noting, the banks "should negotiate bilaterally with TSPs on commercial contracts in addition to the TSP onboarding assessment and ongoing monitoring", and "there should be a risk-based ongoing monitoring mechanism for banks to ensure that TSPs continue to meet the relevant parts of the common baseline".

Finally, the Open API Framework is clear in stating that:



"In addition, banks should monitor the Internet regularly to see if there are third party websites, apps and similar scams which purported to be operated by the banks' partnering TSPs under the Open API framework or claimed to be partnering with the banks when they are not. Whenever banks become aware of these cases, banks should notify promptly their customers and the public through issuing press releases (or similarly effective means)."

Hence, whilst the preliminary document insisted that it would be necessary to develop a set of governance measures such as due diligence, onboarding, control, monitoring, roles and responsibilities, consumer protection, data protection, security, resilience incident handling... the gap is significant.

All in all, the Open API framework thus seems to both explain policy goals and dictates what the outcomes should be, at a potential regulatory cost for the banks.

At the same time, the open API Framework also suggests that the banks could have to support a significant financial burden, if only because the provenance of funds from one app to another will complexify financial transactions. As indicated in the latest draft, indeed:



"In line with the relevant clause in the Code of Banking Practice, a customer should not be responsible for any direct loss suffered by him/her as a result of unauthorised transactions conducted through his/her account attributable to the services offered by TSP using banks' Open API unless he/she acts fraudulently or with gross negligence. In these cases, banks and TSP should provide refund to customers according to the liability and settlement arrangement defined in their contractual terms. Given the wide range of service offerings made possible with Open API, liabilities between banks and TSPs will be dependent on the actual mode of operation. Banks and TSPs should therefore define and agree a clear liability and settlement arrangement to protect customers in the cases of loss, and communicate clearly to customers."

In other words? The risk could remain on the banks, and might very well depend on the commercial agreements they will be able to craft with the third party operators. Of course, such agreements can be negotiated.

Market access risks for TSPs?

Another risk could be mentioned, i.e. that of an unlevelled playing field from the perspective of competition. The objective behind the Open API Framework is obviously to facilitate the development of Hong Kong's Fintech and financial services industry. To this extent, the Hong Kong-based Fintech company Gini has for instance explained that the Framework was good news because "barriers to entry in the financial services industry continue to be very high, and that this situation has produced inefficiencies at both the consumer and macroeconomic levels that are well-documented". Hence, technology developments would "address some of the inherent inequalities in the financial system".

On the other hand, some of the participants have "expressed concerns about the potentially large investment in building an Open API infrastructure as to whether there would be clear business and/or use cases to justify the investment.

There is a strong case for an increase in business opportunities with, in particular, the possibility to create bridges between retail banking and private banking as increasingly developed by Saxo bank for instance. In fact, banks such as DBS or Citi have already opened dedicated API platforms and sandbox to this extent.

At the same time, all banks are not equipped with such technologies. Hence, the Open API Framework could widen the gap between tech-rich banks and the others.



As noted previously, nonetheless, the responsibility to ensure that no barriers to entry are created lays on the banks - which will eventually have to accredit the TSPs. As noted by the Hong Kong Fintech Association, however, "a key aspect of co-opetition is to establish 'the line' above which parties fiercely compete and below which they cooperate and collaborate'. Hence, some TSPs have already expressed concerns. The already mentioned Fintech Gini for instance wrote the following words:



"[...] the absence of any intention to introduce Open Banking regulation or legislation is a potential concern for gini. We do not believe that change in the context of an industry that enjoys highly-advantageous barriers to entry can easily be achieved through gentle encouragement and moral suasion alone, and we anticipate that some stakeholders will choose not to act in the spirit of any agreements made on Open Banking. Moreover, sceptics will cite the lack of legislation as an indication that Open Banking is an elaborate charade, and any discussion of 'gradual' or 'evolutionary' change simply means that the current generation of consumers will never experience the benefits of Open Banking."

In such circumstances, the risk would be to witness a sort of abuse of dominant position. Hence, whilst the Open API Framework, at first sight, opens the market to TSPs, some regulatory risk remains.

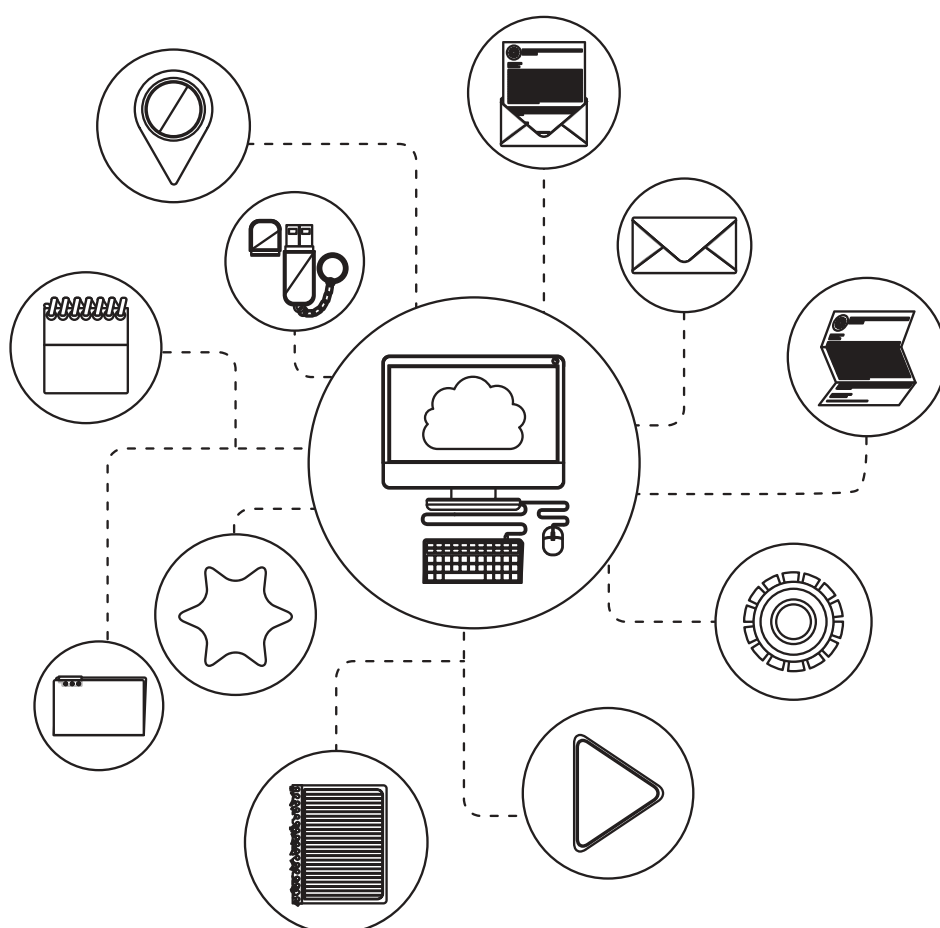
5. CONCLUSION

A FRAMEWORK FOR INNOVATION, WITH A SIGNIFICANT BURDEN TO BEAR.

To conclude, the Open API Framework elaborated by the HKMA presents significant opportunities for the banking and financial sector in Hong Kong.

However, the Framework appears to impose a very significant burden on the banks, which will eventually have to implement it themselves.

This, in turn, is likely to create costs, potential tensions in terms of competition, and a significant regulatory risk for the implementing players.



TO GO FURTHER:

Asia-Pacific Insights:

- Virtual banks regulation in Hong Kong: HKMA pushing into smart banking and Fintech.
- Analysis of the FSDC Report on the Future of Fintech in Hong Kong

Read it online



Read it online



Additional reading:

- Framework for the use of Open Application Programming Interfaces (HKMA, 2018)
- The related press release
- A New Era of Smart Banking (HKMA, 2017)
- Singapore MAS API Playbook (2016)
- Citi Announces Six Open API Partnerships in Hong Kong
- gini's Response to the HKMA Consultation Paper on the Open API Framework for the Hong Kong Banking Sector (March 19, 2018)

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