THE OPEN BANKING REPORT

HOW BANKS CAN LEVERAGE OPEN APIs AND MAINTAIN THEIR RETAIL BANKING DOMINANCE

April 2017

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KEY POINTS

- **Open banking is the democratization of data previously owned exclusively by legacy financial institutions.** This process — by which proprietary data is made available to anyone who has the owner's permission to access it — is facilitated most often by a technology known as an application programming interface (API).

- **There are several factors driving its adoption, the most obvious of which is the advent of open banking regulation in several jurisdictions,** like the EU's revised Payments Services Directive (PSD2). Other drivers include increased competition from fintechs, consumer demand for new products, and the need for banks to find new revenue streams.

- **Banks adopting open banking have taken different approaches.** Some are simply taking the necessary steps to comply with regulatory requirements while others are actively embracing open banking in an effort to maintain their retail banking dominance. Those choosing to do the bare minimum are at serious risk of damaging their positions in the financial services ecosystem.

- **There are several different models of open banking that banks can choose from.** Which model, or combination of models, a bank adopts depends on its priorities and the drivers it finds most imperative. Models include creating an app store, operating a sandbox environment, and charging for use of APIs. Some banks are also striking individual deals with specific third parties.

- **Open banking will have a significant impact on fintechs.** With access to banks' systems and vast data stores, fintechs will be able to provide more personalized products, while operating with greater autonomy. However, open banking will also increase fintechs' regulatory and cybersecurity burdens.

- **Open banking will be the norm in the future, but it's still uncertain when that future will materialize.** As a result, banks getting ahead of the game and approaching open banking as an opportunity, rather than a threat or compliance issue, will likely be better positioned to maintain dominance in the retail banking market.

Download the charts and associated data in Excel »

INTRODUCTION

Open banking is the democratization of data previously owned exclusively by legacy financial institutions. This process — by which proprietary data is made available to anyone who has the owner's permission to access it — is facilitated most often by a technology known as an application programming interface (API), which serves as an access route to data or functionality. The democratization of data is not a novel concept, nor is the use of APIs to facilitate data sharing. But up to this point, neither has been embraced to any great extent by the financial services industry. That's now changing, with banks, regulators, and fintechs exploring the possibilities of open banking — a shift in approach that has the potential to change the way the global banking industry operates.

There are many drivers behind this trend, the most obvious of which is the advent of open banking regulation in Europe and potentially in Asia. The EU's revised Payments Services Directive (PSD2) and the UK's Open Banking rules, both of which are due to come into force in 2018, will require banks to facilitate third-party access to their data and systems. Australia, Singapore, and Malaysia are also seriously considering implementing rules that require banks to share data. In addition, fintechs — which use the most up-to-date technology and new business models to deliver cutting-edge financial services products — are encouraging the shift toward open banking. This is largely because incumbents now realize they can learn a lot from upstarts in terms of giving customers the products and services they want in a more efficient and cheaper way.

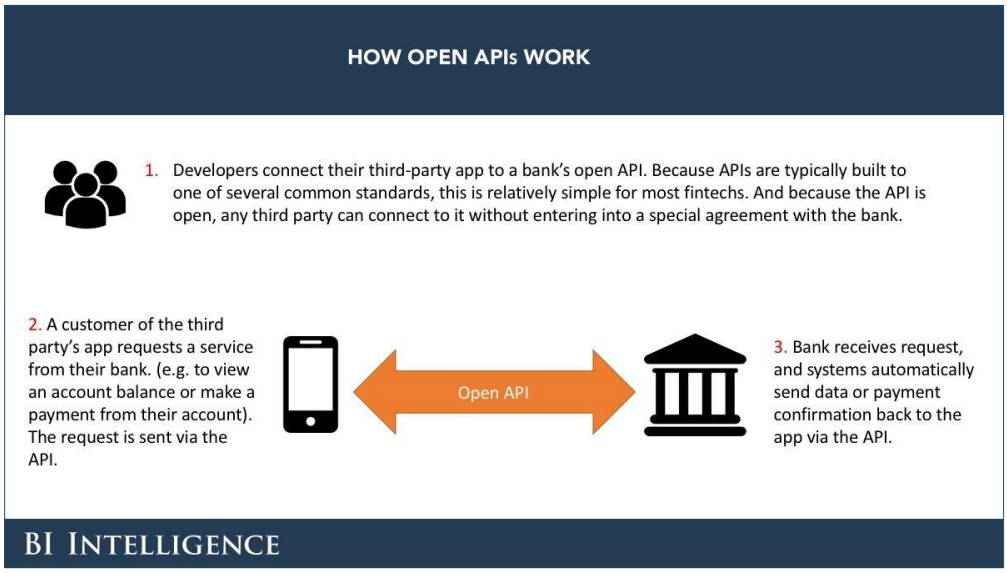
In response to these and other drivers, banks are experimenting with ways to tackle open banking, ushering in a period of change in the retail banking industry as they reassess their business and operational models, and decide how they're going to implement the changes needed to take advantage of, or simply cope with, this new trend.

This report will explore the drivers behind open banking in detail, outline the options for banks as they look to update their business and operational models, and explain the likely potential winners and losers of open banking.

MECHANICS BEHIND OPEN BANKING

A major goal of open banking is to allow customers to access any personal financial data held by a bank so that it may be used elsewhere. For example, a customer may want to share their data with a third party to apply for a nonbank loan. This may be done directly by the customer, or by a permissioned third party. In some cases, open banking also encompasses the provision of access to banks' core systems to enable third parties to independently move money, without the need for the bank's involvement, but with the account holder's express permission.

APIs are purpose-built connections that enable open banking transactions by allowing two pieces of software to communicate with each other. They are typically developed by the bank and made "open," as opposed to "private," so they can grant access to the firm's customer data or systems to third parties. Any third party can connect its own systems to the API without entering into an agreement with the bank.



Once connected, the third party can build the API's functionality into its solution, giving customers the option to allow access to their data or facilitate a banking task through it. Once a consumer has agreed to let the third party access their account, the solution automatically sends a request for information or an instruction to the relevant bank system. That system receives the request and automatically returns the data to the third-party solution or performs the task.

DRIVERS BEHIND OPEN BANKING

Regulation

Regulation requiring banks to share data in easily accessible formats has been introduced in several jurisdictions and is on the horizon in a number of others. In all cases, the motivation of regulators is to create increased competition in the financial services industry. Right now, banks that already make data available to customers or their nominated third parties typically provide it in relatively inactionable formats like CSV files.

Europe. Perhaps the most widely known piece of open banking regulation is the EU's PSD2. Its wide-reaching rules include a requirement that any financial firm issuing payment accounts (including current accounts and credit cards) in the EU create "communication interfaces" that allow registered third parties to access customers' payment account data and initiate payments on their behalf. PSD2 requires that these interfaces meet a common technical standard and include mechanisms that ensure any access to an account is permissioned by its owner. The Regulatory Technical Standards (RTS) for PSD2 issued in February stop short of mandating these interfaces be APIs, but this is widely expected to be the form they take. The regulation was introduced into EU law in December 2016 and is expected to be enforced by late 2018.

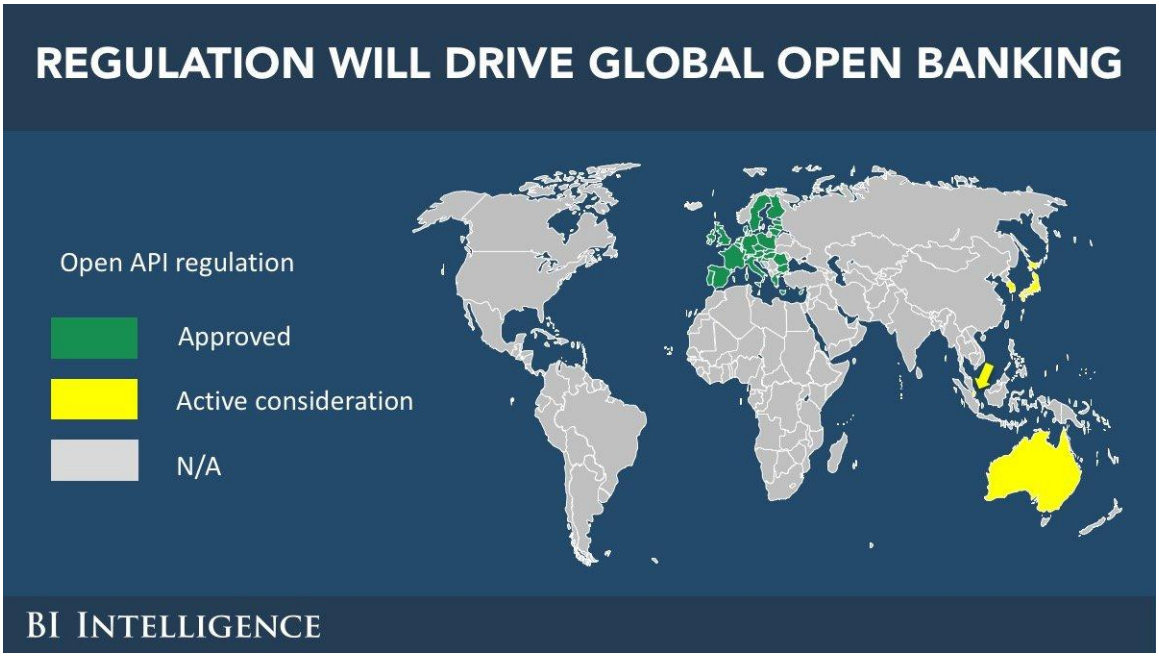
UK. The UK's decision to leave the EU won't give British banks a reprieve from data sharing requirements as the country's Competition and Markets Authority (CMA) has introduced Open Banking rules that will require banks to make a wide range of data available. The Open Banking rules are more specific than PSD2, explicitly requiring that banks build APIs. They also lay out a timeline for what data banks must make accessible and by when.

UK OPEN BANKING IMPLEMENTATION DATES		
Requirement	**Responsibility**	**Commencement date — by or between**
Development and adoption of an open API standard	Largest banks in GB and NI	Q1 2017 and Q1 2018
Service quality metrics: core measures	All banks	Q3 2018
Prompts: cooperate with FCA research and trials	All banks	Q1 2017
Facilitating switching: CASS governance	Bacs	Q3 2017
Facilitating switching: CASS awareness and confidence	Bacs	Q3 2017
Facilitating switching: CASS redirection	Bacs	Q4 2017
Transaction history for customers	All banks	Q1 2018
Overdraft alerts with grace periods	All PCA providers	Q1 2018
Alerts: cooperate with FCA research and trials	All banks	Q1 2017
Monthly maximum charge	All PCA providers	Q3 2017
Firm overdraft decision to customer prior to switching account provider	Bacs	Q3 2017
Development of comparison services for SMEs	Largest banks in GB and NI	Q1 2017
Publication of SME lending product prices	All SME lenders	Q3 2017
Development of SME loan price and eligibility tool	Largest banks in GB	Q1 2018
BCA opening procedures	All banks	Q1 2018

BI INTELLIGENCE Source: PaymentsUK

Asia. Singapore, Malaysia, and Australia are all considering mandating banks to provide access to data. Australia's parliamentary inquiry into the country's four major banks concluded that a data-sharing framework for consumer and small business data should be established by July 2018. And Singapore's Monetary Authority of Singapore (MAS) has issued guidelines and standards for APIs, which banks are being "actively encouraged" to adopt. Malaysia's central bank, meanwhile, has signaled support for wider adoption of open APIs and is formally exploring the idea further.

US. Legislators have hinted that open banking regulation may be coming to the US, and fintechs are pushing hard for such rules. In fact, several recently grouped together to form the Consumer Financial Data Rights (CFDR) lobbying group, which intends to push for consumers, and its members, to get "unfettered" access to personal data, likely via API. Their grounds for such a stance are based on a clause in the 2010 Dodd Frank Act that requires financial firms to make customer data available on request in an electronic form "usable by consumers."



Widespread Adoption Of Enabling Technology

APIs are not the only way to facilitate open banking, but they are commonly seen as the best option currently available. That's because there are accepted common standards for their design, meaning most systems can connect to them with little adaptation, and they are hosted in the cloud, enabling 24/7 accessibility. More importantly, they're well understood — APIs have been in use for nearly 20 years in various industries — and the technology is increasingly being adopted by both new and legacy members of the financial services ecosystem.

There are two main types of APIs:

Private APIs allow internal systems to talk to one another and are widely used by a huge number of firms. That includes banks, many of which have been using private APIs for a number of years. For example, private APIs are used to enable a bank's mobile app to connect to its core systems to pull down customer account information. That banks have already tested the technology within the confines of their own systems may be why a growing number of them are willing to move on from private APIs to open APIs.

Open APIs, or those that facilitate external access to a firm's proprietary systems and data, have seen widespread adoption across industries in the last few years. This can be largely attributed to open APIs from the likes of Google, the provision of which helped give rise to some of the most successful startups of late. For example, the open API that enables any third-party developer to embed Google Maps into their app was instrumental in the success of Uber — the ride-hailing company was able to build the technology powering its product on top of Google Maps, allowing users drop pins for pickups and track their driver's movements. Many fintechs also rely on open API technology to enable their businesses to work — PayPal has APIs that allow third parties to build its own services into websites or apps as a payment option, for example. Seeing the success of such business models is likely encouraging banks to develop their own open APIs.

Competition In The Financial Services Industry

Fintechs have been able to develop innovative products that customers want, often in more efficient ways than incumbents. In particular, fintechs have found ways to unlock value in customer data — by creating highly personalized products, for example. And while it's increasingly understood that not all fintechs are out to steal legacy players' lunch, the development of these new products and services has put pressure on banks to up their game. Incorporating the products created by fintechs is one way banks can do this, and that typically involves giving them access to customer data — either anonymized, or with a customer's permission. For example, JPMorgan and Wells Fargo opened their APIs to Intuit's product suite to enable customers to access their account data within the tech company's apps. That's enabled the banks to keep customers loyal without having to build their own competing products. Intuit's solutions include Mint.com, a personal finance management app, QuickBooks, an SMB accounting solution, and TurboTax Online, a tax management app.

Consumer Demand For New Products

There's typically been little recent differentiation between banks' products, or modernization to reflect broader technological and social changes. However, changes in products and the way services are delivered in other sectors, like retail, have altered consumer expectations. For example, consumers now expect Amazon to know what they want before they do, and to provide them with a variety of delivery options that suit their individual preferences. At the same time, social media allows consumers to express their disappointment as soon as it's felt and to a very broad audience. As a result, consumers now expect an augmented level of service and broader choices across all industries — an expectation that banks are struggling to meet, in large part thanks to their clunky IT systems and lack of understanding when it comes to clients' needs.

In addition, consumers are now increasingly aware of the value of their data. More and more frequently, customers are being asked to hand over data in return for something — an email address in exchange for a discount or Wi-Fi access, for example. This is contributing to a growing consumer desire to have ownership over their data and an ability to make it work for them. Open banking can help with this by allowing third parties to use customers' data to provide beneficial services, like personalized personal finance management tools designed to save them money. Customers stand to gain not only more diverse products from this approach, but a greater feeling of control over their data as well.

Banks' Need To Update Business And Operational Models

It's no secret that banks' profits have taken a hit due to volatile financial markets, heavy spending to maintain legacy IT systems, and the significant cost of complying with the post-2008 regulatory burden. This has left them with less capital available for innovation projects and a need for cheaper, more efficient ways to modernize their products and services. Open banking presents not only opportunities to achieve this, but also ways to find new business models and sources of revenue. Banks can offer a wider range of innovative services to their customers without having to build them from scratch, while gaining access to new distribution channels for their existing products.

Banks have also fallen behind when it comes to making products and services available 24/7 — something consumers increasingly expect given the "always on" approach of tech and e-commerce giants. An open banking strategy enables banks to introduce real-time solutions, including up-to-date balances and instant transfers.

DIFFERENT APPROACHES TO OPEN BANKING

For banks to say they've implemented open banking, they only need to create the technology that third parties require to access data and make it available. However, for some banks, open banking will become much bigger than this — it will serve as an entirely new operational and business model.

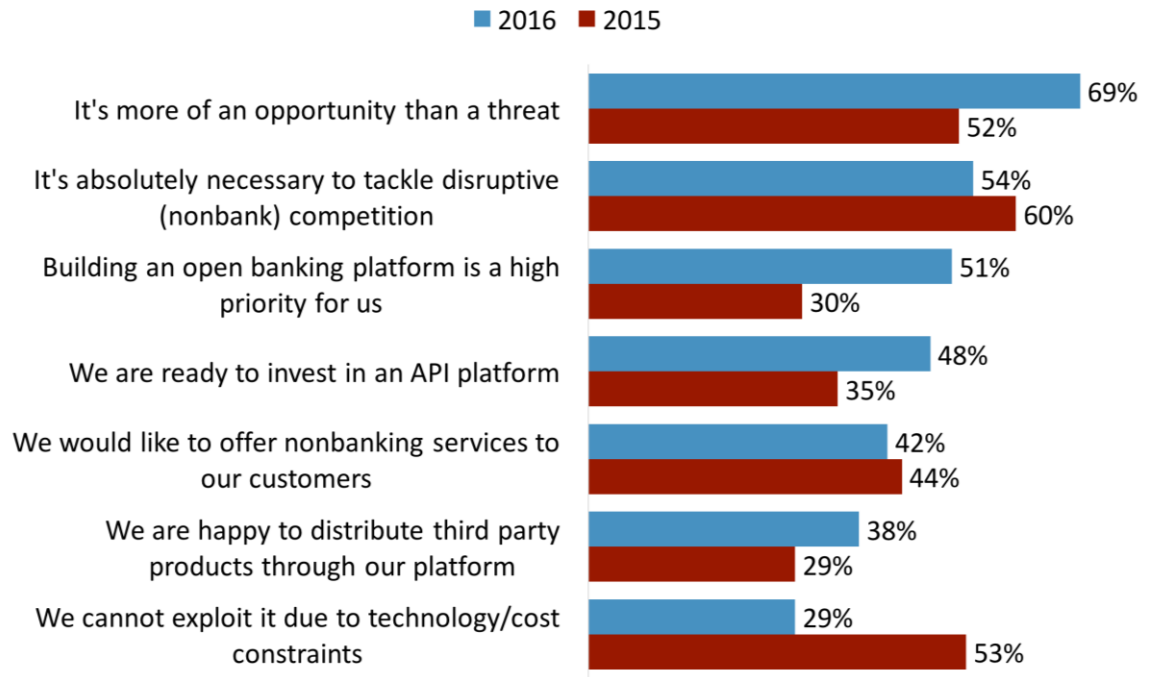
For the most part, banks' strategies regarding open banking fall into two camps:

The bare minimum. Despite the potential benefits open banking, some banks plan on doing only the bare minimum to comply with relevant regulation. While this approach is unlikely to spell the demise of these banks in the immediate future, it could damage their position in the financial services ecosystem. Banks that take this approach will likely end up as "data warehouses," firms that store and transfer customers' data but have no direct contact with it. That's because, empowered by access to this data, third parties will be able to give consumers products and services that better suit their needs, leaving little demand for these incumbents' consumer-facing solutions.

Controlling the situation. Evidence suggests that most banks are taking this approach, with many starting to assess the potential benefits of open banking to decide which are most pertinent to their own needs. Major banks that have already announced projects related to open banking include Citi, Barclays, HSBC, BBVA, NAB, and Lloyds. This approach will enable banks to create a strategy to get the most from open banking, which if successful, could help them maintain a dominant position in the retail banking market. At the same time, banks need to be proactive in developing the underlying technology required to facilitate open banking by creating open APIs and getting them into the wild. That will enable third parties to start experimenting and provide feedback with which the banks can make updates.

Global Banks' Attitudes Toward Open Banking

2016



Source: Temenos, n=235. Respondents who agreed or completely agreed.

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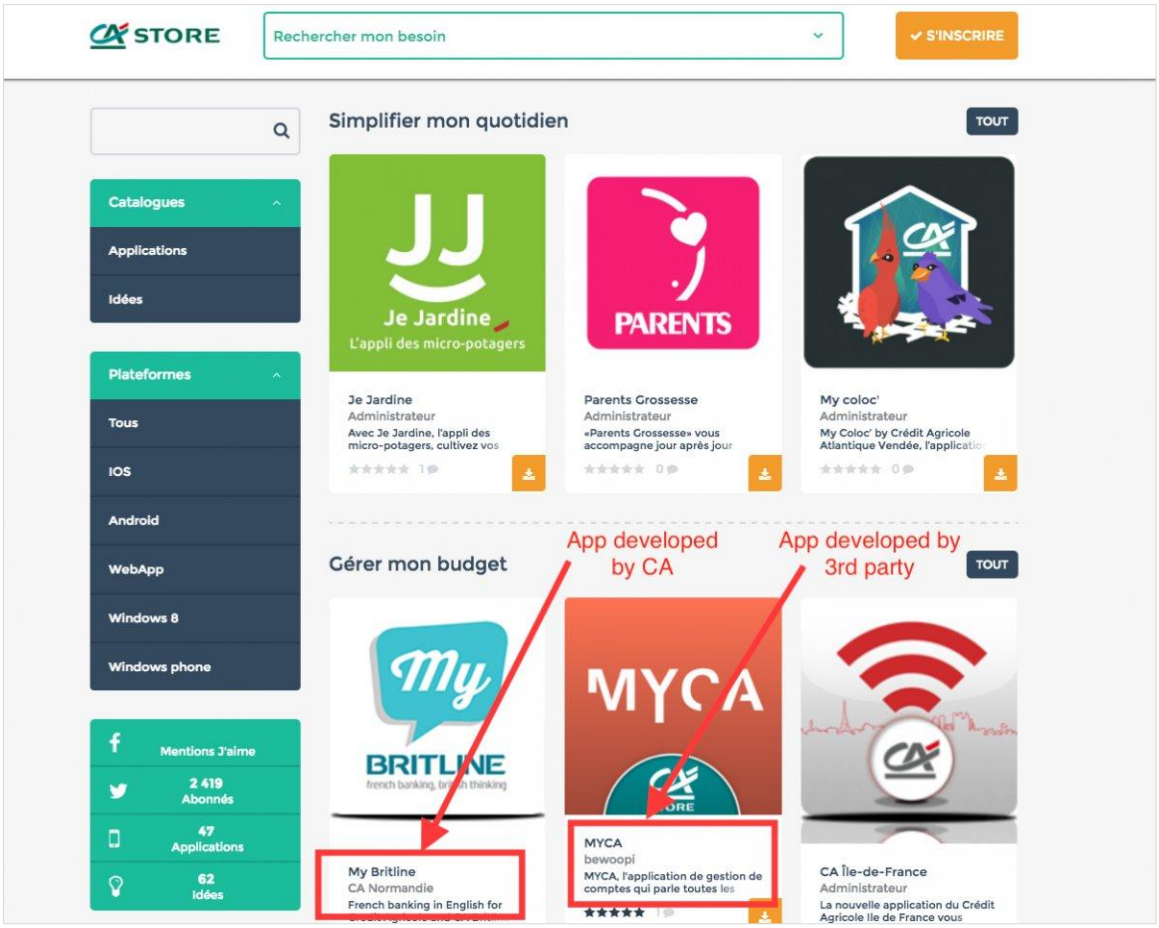
Both scenarios outlined above require a bank to create open APIs, though how many APIs they release, and what functionality they enable, will depend on the bank's individual open banking strategy. Different APIs enable third-party developers to incorporate different functionalities into their own apps or websites. Examples of functionality an open API can provide include access to customer account data; the ability to open a new customer account from a third-party's app or website; the ability to stop a credit card through an app or issue a new one; and the ability to make payments from customers' accounts.

There are a number of different open banking models that a bank can adopt entirely, or take elements of, based on what best suits its individual needs.

An App-Store Model

This model was first adopted by large French bank Crédit Agricole back in 2014. The bank operates a branded interface called CA Store where customers can download apps, some of which are developed by the bank, and some of which are developed by third parties. Third parties get access to a range of open APIs that enable them to build tools for customers — like budget calculators, for example. Customers can submit ideas for apps they'd like to see, and developers can submit requests for access to different data sets that the bank takes into consideration.



Advantages

Maintaining brand control. The app store is branded by Crédit Agricole, which means customers associate the apps they download with the bank. This likely helps the bank stay top of mind when its customers are looking for new products and services, preventing attrition.

Lower development costs. Crédit Agricole does remunerate third-party developers for apps made for its app store, but such costs are likely substantially lower than the outlay it would need to develop such a wide range of products and services in-house.

Control over use of customer data. Any app that appears in the CA Store has undergone a security audit and obtained validation by the bank. This gives the bank a degree of control over who is using its data and how.

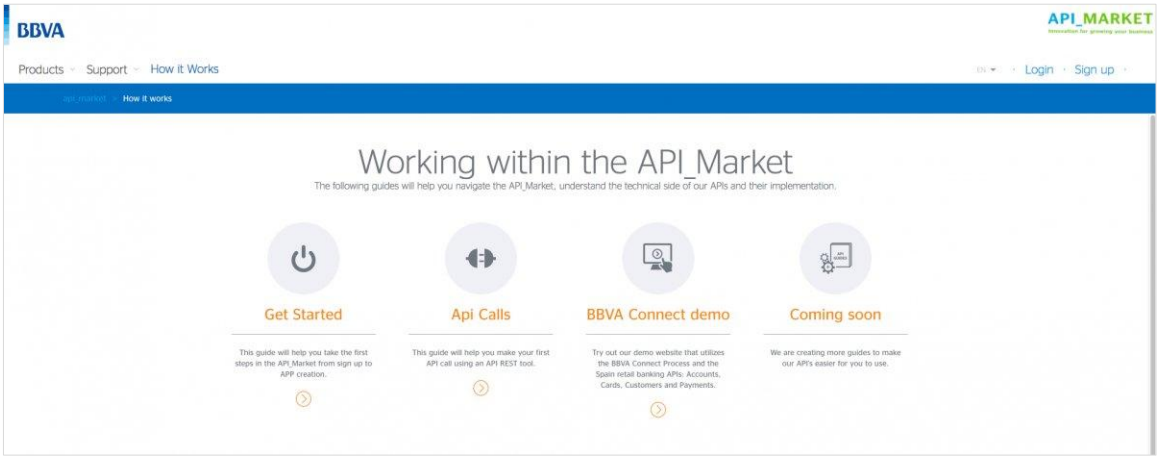
Disadvantages

Financial risk. While development costs may be lower, the bank incurs expenses to run the app store and ensure the apps are secure. One of the standards yet to be clarified in the PSD2 legislation relates to where liability lies should a third-party solution result in loss of funds for a customer. As might be expected, banks are pushing for that liability to fall on the third party.

Potential for brand damage. Offering third-party apps under its own brand could be a double-edged sword for the bank. That's because if an app doesn't perform as expected, or its use causes a client to lose funds or data, customers will likely blame the bank as much as the developer.

A Sandbox Model

This model is used by Spanish bank BBVA, which makes open APIs at its Spanish and US operations available via a proprietary platform, dubbed API Market. Once signed up, developers can choose whether they want to experiment in a sandbox environment using fake data, or operate in production environment, which gives them access to real data once they're ready to set their product live. To enter the production environment, developers must submit a professional business proposal and be approved by BBVA. Other banks using similar models include Barclays and Citi, though BBVA is widely regarded to be the leader in this area.



Advantages

Faster and cheaper product development. From the bank's perspective, the aim of its API Market is to establish working relationships with third parties to deliver innovative new products to its customers. It's likely cheaper and quicker to leverage the ideas and expertise of external developers than to develop new solutions in-house.

Access to a wider range of talent. Banks' historically bureaucratic and formal cultures make it difficult for them to attract the best talent in financial innovation. One way around this is for banks to invite such people to work alongside them on specific projects, while maintaining the IP rights to anything developed. This allows them access to talent without having to draw anyone in-house.

Revenue. BBVA charges developers using the production environment for access to APIs based on which APIs are accessed and their end use. This provides the bank with an additional source of revenue. Whether banks will be able to continue to charge third parties for access to their APIs under the EU's PSD2 regulation is not yet confirmed.

Disadvantages

Altering technology to fit regulation. BBVA is undoubtedly ahead in preparing for PSD2 regulation, however, there could be negative consequences if its APIs don't meet the technical specifications the EU eventually issues. That may result in costly upgrades for the banks, and in the meantime, it could put off potential partners that worry they'll have to go through a second set of integrations after PSD2 is implemented. This risk applies to all banks that choose to build open APIs ahead of the finalization of any coming regulation.

Acting As An Enabler For Other Banks

The construction and implementation of open APIs will likely be too complex and expensive for smaller banks to achieve on their own, which could present an opportunity for those with more advanced open banking programs to act as enablers. In such a scenario, the less advanced bank would build a single connection to the other's platform, giving the platform owner access to its data and systems. The platform owner would then facilitate third-party access to the less advanced bank via its own open APIs. Market leaders with more resources, as well as those that have already inculcated an innovative culture, are most likely to be in a position to serve as enablers. Meanwhile, smaller banks with older systems are likely to be on the other side, making it more probable that we'll see this model adopted in countries where there are many small banks — like the US or Germany. Banks using another's platform would likely to lose out doubly financially, as they would forgo the opportunity to create new revenue streams, and have to pay the platform owner a fee.

Advantages

Revenue. The more advanced bank would likely be able to charge banks using its platform a fee.

Access to other banks' data. The platform owner would gain access to other banks' data and systems. This could give it a number of advantages — not only would the bank be able to use that data to get insight into its competitors' businesses, but it may also be able to use it to deliver an aggregation service to its own customers. That would enable the bank to provide customers with their account details from any bank connected to its platform through one digital portal, likely overlaid with its own branding.

Disadvantages

Unwillingness of other banks to work with a competitor. Some banks could be averse to using a platform provided by another bank, precisely because it gives competitors easy access to their data and systems. Such banks may be more willing to use platforms from third-party fintech providers, which are already starting to emerge.

Charging For Access To APIs

The easiest way for banks to ensure they benefit from open banking is by charging third parties to use their APIs, potentially with fees varying, depending on type of data or system accessed, or with volume of data used. This model can be used in conjunction with any of the others.

Advantages

Revenue and offsetting development costs. A major advantage of this strategy is that banks can ensure they benefit in some way from being forced to create open APIs and hand over data. Even without thoughts of new revenue streams, banks will likely want to recoup some of the costs of developing the technology.

Setting the terms of the relationship with third parties. Charging for access to APIs might put some fintechs off plugging into a bank's data and systems given the often limited resources of these players. This could help banks feel they're maintaining an advantage over many fintechs, as their data would remain largely in their hands. However, this model wouldn't stop more innovative banks from accessing the data, which on its own could weaken a bank's position.

Disadvantages

Regulation may prevent banks from charging for access. As mentioned, regulation may prevent banks from charging third parties for access — the biggest potential downside for this model. As of yet, it's unknown whether any of the regulation currently being finalized across Europe and Asia will explicitly forbid bank fees.

On its own, it's a weak strategy. This strategy doesn't embrace the goals of open banking, and is only one step beyond doing the bare minimum. Banks that take this approach without employing any of the others will likely fail to fend off competition from fintechs and other, more proactive banks.

Limiting Access To Specific Third Parties

Banks are using this strategy as the first step toward open banking, particularly in regions where regulation forcing the issue has yet to be created. It's particularly popular with large banks that have significant resources — US banking giants JPMorgan and Wells Fargo recently adopted this approach via their agreements with Intuit.

Advantages

Banks can control which firms have access to their data. This model enables banks to decide on a case-by-case basis which third parties are likely to pose a significant competitive threat and refuse to work with them. For example, while legacy banks in Europe will be forced to open up to digital challenger banks, US banks can refuse to work with these upstarts.

Banks can work out the kinks on their own time. Taking this approach allows banks to iterate and test their APIs with one firm, creating the optimum solution before launching it into the wild. They can also focus their resources on opportunities that are most likely to benefit them most.

Disadvantages

Building individual agreements and integrations. Making individual and tailored partnerships is time-consuming and costly, which means this strategy is unlikely to be sustainable for even the largest banks, particularly given the volume and variety of third-party apps customers are likely to want to have access to their data.

THE FUTURE OF OPEN BANKING

Implications For Fintechs

As banks increasingly move toward the creation of open APIs, whether on their own or to comply with regulation, the broader financial services ecosystem will see considerable change. In particular, open banking is likely to have a significant impact on fintechs.

- **Open banking will give fintechs access to customer data,** a valuable commodity they haven't historically had access to that can be leveraged to improve and personalize their own products.

- **It will also likely make some fintechs more viable,** as they will be able to connect directly to banks to initiate payments, reducing the need to go through, and pay, an incumbent provider for these services — or shell out even more resources to build their own versions.

- **Fintechs may find banks more willing to collaborate than before,** as open APIs make such partnerships simpler. Banks will also face more pressure to innovate, which will likely be another driver for them to work with fintechs.

- **Some fintechs have built their business models around open banking,** and will be relying on open APIs to ensure their model works. This applies largely to financial services marketplaces and aggregators.

In addition, open banking will increase fintechs' regulatory and cybersecurity burdens. Most fintechs in Europe are already regulated, either under legacy frameworks or via specially constructed rules. However, to take advantage of PSD2, third parties will have to be certified as either an Account Information Service Provider (AISP) or a Payment Information Service Provider (PISP) by their relevant national regulator. Additionally, should the liability for any data breach end up falling on third parties under PSD2, fintechs will have to significantly bolster their cyber defenses. Any fintech looking to work with a legacy bank will also likely face heavy scrutiny over their privacy and security processes.

Implications For The Wider Industry

Open APIs will be the norm in the future — but it's still uncertain when that future will materialize. While regulation will play a role in making open banking ubiquitous, legislators are also notoriously slow at issuing final versions of regulations and sealing them into law, suggesting that at least one major initiative will miss its deadline. That said, as large banks continue to create API platforms on their own, the race to avoid being left behind will heat up, pushing open banking to the mainstream. This means that banks getting ahead of the game and approaching open banking as an opportunity, rather than a threat or compliance issue, will likely be better positioned to maintain dominance in the retail banking market.

THE BOTTOM LINE

- Open banking is the democratization of data previously owned exclusively by legacy financial institutions.
- Drivers behind the adoption of open banking include regulation, increased competition from fintechs, consumer demand for new products, and the need for banks to find new revenue streams.
- Banks adopting open banking have taken different approaches. Some are simply taking the necessary steps to comply with regulatory requirements, while others are actively embracing the concept.
- There are several different models of open banking that banks can choose from. Models include creating an app store, operating a sandbox environment, and charging for use of APIs.
- Open banking will have a significant impact on fintechs, which will be able to provide more personalized products while operating with greater autonomy.
- Open banking will be the norm in the future, but it's still uncertain when that future will materialize. Banks getting ahead of the game will likely be better positioned to maintain their dominance.

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