

What is the potential for open banking in Mexico?

Recommendations and roadmap for adopting an open banking standard

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About the organisations behind the report

Prosperity Fund

gov.uk/government/news/prosperity-fund-programme-in-mexico

In November 2015, the British government established a Prosperity Fund that will reach up to £1.2 billion in total over five years (2015/16 – 2020/21). The Prosperity Fund supports the broad-based and inclusive growth needed for poverty reduction to make development sustainable. The investments through this programme in Mexico may exceed £60 million in the following sectors: energy, financial services, future cities and business environment. The cross-government Prosperity Fund programmes, which include Mexico, cover topic areas such as health, education, anticorruption, trade and infrastructure.

C Minds

www.cminds.co

C Minds is an impact innovation agency that designs and deploys strategies for economic and social development. It enables cross-sector collaborations and harnesses the power of new technologies from its San Francisco and Mexico City offices. C Minds has more than 10 years of experience developing policies and implementing frontier initiatives in emerging economies with a wide range of stakeholders, including the national and local governments, academia, civil society and the private sector at an international level.

The Fintech Hub

facebook.com/FinTechInnovationHub

The FinTech Hub is the place of reference for the FinTech ecosystem in Mexico and Latin America. Its aim is to create the first industry ecosystem by deploying purpose-specific programmes. The FinTech Hub incorporates digital transformation programs, advisory services and a Think Tank advocated to develop FinTech Public Policies and Cashless Cities solutions.

Open Data Institute (ODI)

theodi.org

The ODI is an independent, non-profit, non-partisan company. It was co-founded in 2012 by the inventor of the web Sir Tim Berners-Lee and artificial intelligence expert Sir Nigel Shadbolt to advocate for the innovative use of open data to affect positive change across the globe. Their vision is for people, organisations and communities to use data to make better decisions and be protected from the harmful impacts of its inappropriate use and distribution.

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Executive summary

With the passing of the Law to Regulate Financial Technology Institutions (known as the FinTech Law) on 1 March 2018,¹ Mexico became the first country to regulate its FinTech sector. This law lays the groundwork for an open banking standard (OBS) by requiring financial institutions to establish open application programming interfaces (APIs) with the aim of making financial data open, while respecting privacy and commercial confidentiality.

Mexico joins a group of countries that includes the UK, Australia, New Zealand and Singapore, which are all taking steps to introduce regulatory frameworks that encourage shared, secure access to financial data. Under these measures, banks can provide secure open APIs, which give consumers the option to grant certain permissions to authorised third parties to access bank account data about themselves. This opens up access to a range of innovative and tailored financial services that can help consumers make payments, set up direct debits, and exercise more control over their money. This development has the potential to directly impact the country's economic growth, by empowering a more competitive and innovative financial sector.

To understand the perspective of various sectors regarding open banking in Mexico, we conducted semi-structured interviews with 30 stakeholders from financial technology institutions (FinTechs), banks, capital funds, investors, law firms, and a business accelerator; hosted workshops with 57 government regulators and 22 sector leaders from the financial ecosystem; and surveyed 130 people over a five-week period. These interviews and surveys were supplemented by desk research that produced a broad analysis of global trends, in particular drawing on lessons learned from the UK's experience in developing and implementing an OBS. The research process lasted five weeks.

¹ Presidencia de la República, '81st Banking Convention', gob.mx/presidencia/en/articulos/81st-banking-convention

Report findings

The report finds that an open banking initiative has the potential to deliver a wide range of benefits for stakeholders across Mexico, including:



Consumers can choose from more efficient and effective services



Those currently excluded from the financial services sector can have more options



Small businesses can access credit, and save time and money



Banks, FinTechs and other financial institutions can be more competitive and reach new markets



Challenger banks and FinTechs can innovate, collaborate and grow



Investors can promote inclusive economic growth through new investment opportunities

However, a number of challenges need to be addressed to promote the successful implementation of an open banking initiative in Mexico, including: reducing friction in digital payment services to make services faster; modernising Mexico's credit bureau; improving digital connectivity; standardising databases, creating common technical standards; and building FinTech capability to take advantage of the opportunities that open banking presents.

Successful implementation will also require addressing the low levels of trust held by some consumers around how data about them is handled. There must be a balance between facilitating data sharing and mitigating data risks, particularly given concerns in the ecosystem about fraud in the sector (in a 2015 global fraud report, [80% of Mexican companies](#)² polled reported experiencing fraud in the previous 12 months). Individuals, businesses and governments must have an awareness of their rights and responsibilities when sharing or handling data. We need to be clear on what informed consent means, and platforms must be transparent and proactive in how they use and store customer data.

Recommendations for an open banking roadmap

Delivering the full potential of open banking in Mexico will require action from a number of stakeholders in the coming years. In this report, we recommend coordinated actions across three broad areas:

1) Lay the foundations for sustainable open banking infrastructure in Mexico, by:

- i) researching consumer needs
- ii) agreeing desired objectives and impact targets
- iii) assessing the capability of the financial sector to implement
- iv) establishing an open banking working group (OBWG)
- v) creating a cross-sector group among government agencies
- vi) introducing milestones for standards development and expansion
- vii) agreeing on the long-term funding and governance model
- viii) setting up an open banking-specific regulatory sandbox to test innovations
- ix) encouraging engagement across the finance sector and beyond

2) Grow the ecosystem, by:

- i) supporting organisations that will help deliver desired objectives, such as financial inclusion among others
- ii) building the capability of the Mexican financial sector to deliver the roadmap
- iii) running innovation challenges and pilots that encourage industry to develop solutions that use open banking

² Kroll (2015), 'Global Fraud Report', http://anticorruzione.eu/wp-content/uploads/2015/09/Kroll_Global_Fraud_Report_2015low-copia.pdf

- iv) reviewing complementary legislation
- v) developing and/or contributing to an international peer network

3) Learn and adapt, by:

- i) building a monitoring framework for assessing whether risks have manifested
- ii) measuring the success of the initiative over time

Next immediate steps

With the momentum of the recently passed FinTech law, a burgeoning financial services sector and optimism among investors, it is clear that now is the time to act. Moving forward, the partners behind this report recommend two key steps:

- 1) opening up this document to allow for the participation of key actors in the ecosystem as a way to strengthen the analysis and recommendations; and
- 2) bringing the ecosystem together (through a working group) to discuss the best way to implement an OBS in Mexico, taking into consideration international best practices and the different themes mentioned in this report, such as impact on gender equality and financial inclusion.

Key definitions

Aggregated data: data concerning any type of statistical information from operations carried out by or through financial entities, but that does not have a level of disaggregation that would allow for the identification of personal data or a person's transactions.

This data is only accessible to those that comply with the authentication mechanisms defined by the Supervising Commissions or the Bank of Mexico for compensation chambers and credit information companies, via general provisions issued for that purpose. (definition adapted from Mexico's FinTech Law.)

GDPR: The General Data Protection Regulation, which was adopted in the EU in 2016, intends to strengthen and unify data protection for all individuals within the EU. The GDPR strengthens the protection of people's rights concerning data about them and creates new rights, eg data portability.

Open APIs: An application programming interface (API) is a proven technology that can help provide access to open data (such as a list of products that a bank provides), secure shared access to private data (such as a list of the transactions in an individual's bank statements) and secure support for taking actions (such as payments or closing accounts). An open API is an API that adheres to an open standard.

Open banking: a requirement for banks and building societies to make certain information accessible through secure open APIs, which allow consumers to share data about themselves with authorised third parties so that they can get more effective and efficient services, as well as open data about financial products and services.

Open banking initiative: A multi-sector programme to facilitate the adoption and implementation of an open banking standard (OBS), involving building the software standards and data infrastructure, industry guidelines, incentivising innovation, public engagement and capacity building.

Open data: data exists on a spectrum, from closed to shared to open. Open data is data that is licensed for anyone to access, use and share.

Open financial data: data generated by financial entities that does not include confidential information, such as information about products and services offered to the general public, the location of their offices and branches, ATMs or other access points to their products and services. (definition adapted from Mexico's FinTech Law.)

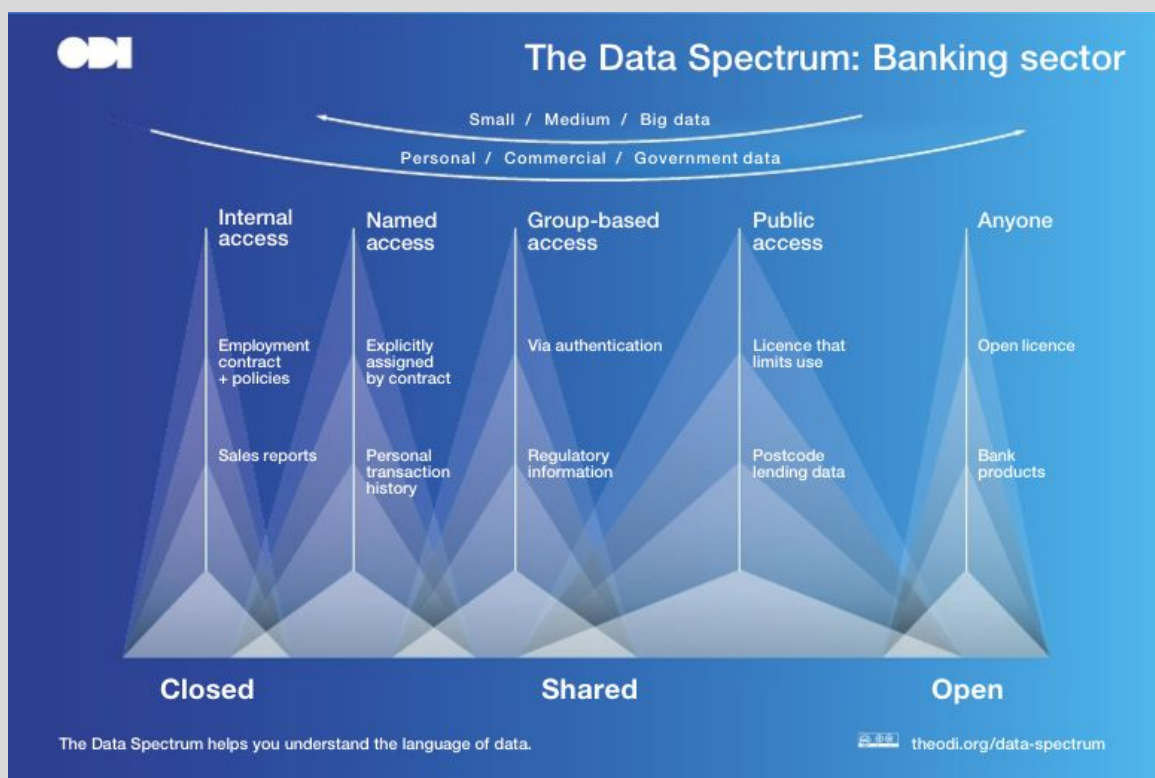
Open standard: Standards are documented, reusable agreements. They are created, developed and maintained collaboratively. An open standard is available for anyone to access, use or share. Open standards for data make it easier for people and organisations to publish, access, share and use better quality data.

PSD2: The Revised Payment Service Directive is a new EU regulation that seeks to increase competition in the payments industry by enabling new types of payment services, improving customer protection and security and extending the scope of the original directive. PSD2 requires all payment account providers across the EU to provide third-party access. *For more information, see Annex 5.*

Public API: An API that is free and accessible for anyone to use. They are sometimes subject to authentication or restrictions on free usage.

Shared data: Shared data can only be accessed by those with permission or under specific terms and conditions. There are varying levels of access, including:

- named access (data that is shared only with named people or organisations)
- attribute-based access (data that is available to specific groups that meet certain criteria)
- public access (data that is available to anyone under terms and conditions that are not 'open').



The UK Open Banking Standard (OBS): This is a guide for how banking data should be created, shared and used in the UK. It was created by the Open Banking Working Group, a collective of banking, open data and FinTech professionals. The open standard is developed and maintained collaboratively and transparently, and can be accessed and used by anyone.

Transactional data: data related to the use of a product or service such as deposit accounts, credits and other provisions hired by the clients of a financial entity. This

includes information concerning the transactions carried out or attempted by clients in the entity's technological infrastructure. As this information includes clients' personal data, it can only be shared following their explicit consent. (definition adapted from Mexico's FinTech Law.)

Open banking: a growing global movement

Around the globe, governments are acting to implement regulatory frameworks that encourage shared, secure access to financial data.

Below are some of the global advancements regarding open banking (april 2018).

Europe

In Europe, the Revised Payment Services Directive (PSD2) 'modernises European payment legislation' by mandating banks in the EU to offer APIs to licensed third parties to provide account and payment services to customers. Banks are required to establish risk management frameworks that are regularly reviewed.

The UK introduced an OBS in 2016 to make the banking sector work harder for the benefit of consumers, focusing on how data could be used to ['help people to transact, save, borrow, lend and invest their money'](#)³. The standard's framework sets out how to develop a set of standards, tools, techniques and processes that will stimulate competition and innovation in the country's financial sector: it has been estimated that the initiative [will contribute more than £1 billion](#)⁴ to the country's economy.

³ The Open Data Institute (2016), 'Introducing the Open Banking Standard', <https://theodi.org/project/open-banking-setting-a-standard-and-enabling-innovation/>

⁴ CityAM (2018), 'Open banking could provide £1 billion boost to the UK economy as banks are forced to compete, says new study', <http://www.cityam.com/281230/open-banking-could-provide-gbp1bn-boost-uk-economy-banks>

A consortium of leading European banks has created a working group called the [Berlin Group](#)⁵ to discuss the development of a single collaborative API that will enable access to customer data from all participating banks. Industry is also leading change in Switzerland, where the [Swiss FinTech Innovations Working Group is bringing together Swiss banks and insurers](#)⁶ to lay the foundation for standardising APIs across the industry.

North America

In August 2017, the Canadian government stated in a [second consultation paper](#)⁷ that it is considering ‘the merits of open banking’ for Canada’s financial sector, including looking into how open banking has been implemented in other jurisdictions.

Asia and Oceania

In Hong Kong, the Hong Kong Monetary Authority has [scoped a policy framework](#)⁸ that facilitates the development and adoption of open APIs in the banking sector, as part of the country’s [‘Smart Banking’ initiative](#)⁹. The authority issued a summary of this framework in January 2018, which includes security standards required for open APIs, such as identity authentication, and a common standard for the function and definitions of open APIs.

The government of Japan has [issued an amendment](#)¹⁰ to the country’s Banking Act, requiring banks to open up APIs for electronic payment service providers (EPSPs) by 2020, while a conference in India has planned a [policy roundtable](#)¹¹ on open APIs. In Singapore, the Monetary Authority of Singapore held a public consultation on a new Payment Services Bill to open up payment systems to third parties, as well as issuing joint guidance around APIs with the Association of Banks in Singapore (ABS) in an [API Playbook](#)¹².

⁵ The Berlin Group (2017), ‘Market Consultations’, <https://www.berlin-group.org/market-consultations>

⁶ Swiss FinTech Innovations (2017), ‘Common API’, <https://swissfintechinnovations.ch/projects/common-api/>

⁷ Department of Finance Canada (2017), ‘Potential policy measure to support a strong and growing economy: Positioning Canada’s financial sector for the future’, <https://www.fin.gc.ca/activty/consult/pssge-psefc-eng.pdf>

⁸ Hong Kong Monetary Authority (2018), ‘Consultation paper on an open API framework for the Hong Kong banking sector’, <https://www.fin.gc.ca/activty/consult/pssge-psefc-eng.pdf>

⁹ Hong Kong Monetary Authority (2017), ‘Press Release - A New Era of Smart Banking’ <http://www.hkma.gov.hk/eng/key-information/press-releases/2017/20170929-3.shtml>

¹⁰International Financial Law Review (May 2017), ‘Moving Forward’, http://www.aplaw.jp/IFLR_May_2017.pdf

¹¹ India FinTech Forum (2018), ‘FinTech Policy Roundtable on India’s Open API Policy to encourage fintech innovation’, <https://blog.indiafintech.com/2018/02/25/fintech-policy-roundtable-on-indias-open-api-policy-to-encourage-fintech-innovation/>

¹² Association of Banks Singapore & Monetary Authority of Singapore (2013), ‘Financial world: Finance-as-a-service API Playbook’, <https://abs.org.sg/docs/library/abs-api-playbook.pdf>

In Australia, the National Treasury ordered [a review into open banking](#)¹³ to explore the necessary regulatory frameworks for security and privacy; it released its [recommendations](#)¹⁴ in December 2017. The review proposes that open banking is one step towards implementing a larger Consumer Data Right across sectors. As a result, the Australian open banking initiative will eventually cover a large range of financial products, from current and savings accounts to mortgages and asset finance, and consider future interoperability between banking and other sectors. Discussions have also begun in New Zealand concerning APIs as part of the country's [Payments Direction](#)¹⁵ initiative and an API pilot has been launched. Malaysia has also joined the list of countries with open banking initiatives with the creation of a working group for open APIs.

Below is a table that sums up these developments.

Country territory	Relevant bodies	Progress made in development and implementation of Open Banking Standard (OBS) until April 2018	Maturity (low-high)
UK	Competition and Markets Authority Financial Conduct Authority	Managed rollout of open APIs for retail banking in progress. Regulates 9 banks and 1 financial service: current accounts (since 2018).	High
European Union	European Commission European Banking Authority	Rules entered into force in January 2018, still issuing guidance around technical standards.	High
Mexico	CNBV (National Banking and Securities Commission) Banco de México SHCP (Ministry of Finance and Public Credit)	Passed FinTech law that requests the regulation of open APIs and dictates that Mexico publishes an OBS in less than 24 months after the Law's publication. It is currently the only country to require all financial institutions to adopt the OBS. Existence of a Roadmap for an open banking initiative and a working group (March 2018).	Medium-High
Australia	National Treasury	Legislation in progress following release of recommendations . ¹⁶	Medium
Malaysia	Central Bank of Malaysia	Established an open API implementation group. ¹⁷	Medium
New Zealand	Payments NZ	Advanced discussions as part of the Payments Direction ¹⁸ initiative. Launched industry API pilot. ¹⁹	Medium

¹³ Australian Government (2017), 'Review into Open Banking in Australia',

<https://static.treasury.gov.au/uploads/sites/1/2017/08/Review-into-Open-Banking-IP.pdf>

¹⁴ Australian Government (2017), 'Review into open banking: Giving customers choice, convenience, and confidence',

https://static.treasury.gov.au/uploads/sites/1/2018/02/Review-into-Open-Banking-_For-web-1.pdf

¹⁵ Payments NZ (2018), Payments Direction,

<https://www.paymentsnz.co.nz/about-us/payments-direction/>

¹⁶ Australian Government (2017), 'Review into open banking: Giving customers choice, convenience and confidence',

https://static.treasury.gov.au/uploads/sites/1/2018/02/Review-into-Open-Banking-_For-web-1.pdf

¹⁷ Finextra (2018), 'Malaysian Central Bank prepares for banking industry's 'Kodak Moment''

https://www.finextra.com/newsarticle/31862/malaysian-central-bank-prepares-for-banking-industrys-kodak-moment?utm_medium=newsflash&utm_source=2018-3-23&member=77291

¹⁸ Payments NZ (2018), Payments Direction,

<https://www.paymentsnz.co.nz/about-us/payments-direction/>

¹⁹ Finextra (2018), 'New Zealand launches industry API pilot'

https://www.finextra.com/newsarticle/31873/new-zealand-launches-industry-api-pilot?utm_medium=newsflash&utm_source=2018-3-27&member=77291

Singapore	Monetary Authority of Singapore	Public consultation on new Payment Services Bill . ²⁰ Issued joint ' API Playbook ' ²¹ with Association of Banks in Singapore.	Medium
Hong Kong	Hong Kong Monetary Authority	Scoped policy framework ²² for open banking.	Low - medium
Japan	Financial Services Agency	Advanced discussions, amendment to Banking Act proposed to open payment systems.	Low - medium
Canada	Department of Finance	Issued second consultation paper ²³ stating it is examining 'the merits of open banking' for Canada	Low
India	National Payments Corporation of India	Currently in exploratory phases. Planned Policy Roundtable ²⁴ on Open API Policy at Fintegrate Zone 2018 conference.	Low

Case study: implementing an open banking standard in the UK

The UK has become a global leader in open banking through the adoption of an Open Banking Standard (OBS). The UK OBS was built to make the banking sector work harder for consumers and use data to 'help people to transact, save, borrow, lend and invest their money'²⁵ through an openly accessible set of standards, tools, techniques and processes.

²⁰ Monetary Authority of Singapore (2017), 'Consultation on proposed Payment Services Bill', <http://www.mas.gov.sg/News-and-Publications/Consultation-Paper/2017/Consultation-Paper-on-Proposed-Payment-Services-Bill.aspx>

²¹ Association of Banks Singapore & Monetary Authority of Singapore (2013), 'Financial world: Finance-as-a-service API Playbook', <https://abs.org.sg/docs/library/abs-api-playbook.pdf>

²² Hong Kong Monetary Authority (2018), 'Consultation paper on an open API framework for the Hong Kong banking sector', <https://www.fin.gc.ca/activty/consult/pssge-psefc-eng.pdf>

²³ Department of Finance Canada (2017), 'Potential policy measure to support a strong and growing economy: Positioning Canada's financial sector for the future', <https://www.fin.gc.ca/activty/consult/pssge-psefc-eng.pdf>

²⁴ India FinTech Forum (2018), 'FinTech Policy Roundtable on India's Open API Policy to encourage fintech innovation', <https://blog.indiafintech.com/2018/02/25/fintech-policy-roundtable-on-indias-open-api-policy-to-encourage-fintech-innovation/>

²⁵ The Open Data Institute (2016), 'Introducing the Open Banking Standard', <https://theodi.org/project/open-banking-setting-a-standard-and-enabling-innovation/>

Creating and adopting the UK OBS

After the release of the government-commissioned 'Data sharing and open data for banks²⁶' report in late 2014, the UK Treasury announced a call for evidence in 2015 to examine how an open API standard could be delivered, and convened the Open Banking Working Group (OBWG)²⁷ to develop a framework for adopting an open API standard.

In 2016, the OBWG published the OBS framework²⁸ as a guide for how banking data should be created and shared. It is formed of three main standards²⁹ that regulate the data, technical and security aspects of open APIs, and put into place a governance model. The initial scope was limited to individual and business current accounts, savings and credit cards, and open data about product offerings for these services, plus accounts, loans and mortgages. This is being extended to payments services in accordance with PSD2. This initial limitation of scope and focus on the nine biggest banks encouraged more timely action and ensured that the implementation burden was not too heavy on smaller, challenger banks. While they are not required to do so, other banks and actors in the financial ecosystem recognise its value and are adopting the OBS requirements to unlock innovation that will transform and improve the customer banking experience.

The Open Banking Implementation Entity³⁰ (OBIE, also known as Open Banking Limited) was set up in 2016 to implement the standard, which has been introduced in stages (see annex 6) to reduce the burden of compliance. The establishment of the OBIE, along with the funding of a competition to encourage innovation around the open APIs, was one of several initiatives mandated by the Competition and Markets Authority³¹ (CMA). Its activities are funded by the nine participating banks and building societies, and are governed by the CMA.

²⁶ The Open Data Institute & Fingleton Associates (2014), 'Data sharing and open data for banks: a report for FM Treasury and Cabinet Office', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/382273/141202_API_Report_FINAL.PDF

²⁷ Payments UK (2016),

<https://www.paymentsuk.org.uk/policy/european-and-uk-developments/payments-uk-help-ensure-best-outcomes-uk-customers-multi>

²⁸ Payments Forum UK (2016), 'The open banking standard',

<https://www.paymentsforum.uk/sites/default/files/documents/Background%20Document%20No.%202%20-%20The%20Open%20Banking%20Standard%20-%20Full%20Report.pdf>

²⁹ Open Banking Implementation Entity (2017), 'Standards',

<https://www.openbanking.org.uk/standards/>

³⁰ Open Banking Implementation Entity (2018), 'Open banking', <https://www.openbanking.org.uk/>

³¹ Competition and Markets Authority (2018), 'CMA',

<https://www.gov.uk/government/organisations/competition-and-markets-authority>.

The CMA works to promote competition for the benefit of consumers, both within and outside the UK. It aims to make markets work well for consumers, businesses and the economy. The authority's equivalent in Mexico is COFECE (Federal Economic Competition Commission).

Lessons learned

At the time of the report's publication, the UK OBS is being rolled out across the country's financial institutions. The process of creating and implementing this OBS provides learning that may help the effective implementation of open banking in other countries:

- 1) **Importance of regulation to promote compliance:** After initial attempts to get banks to implement open banking by choice failed, the UK benefited from strong regulation from the CMA to enforce adoption. Since then, the CMA and Financial Conduct Authority (FCA) have promoted and guided the implementation of open banking. Key benefits of this approach include providing confidence in identity, security and privacy models, and ensuring there is a mechanism for certifying third parties before they can use the open APIs.
- 2) **Complexity of the legal and regulatory environment:** The OBIE has encountered issues in navigating the complex interactions between different regulations that affect the financial sector. As well as the CMA order and PSD2, organisations must also comply with the upcoming General Data Protection Regulation (GDPR), a new privacy legislation that is being introduced across the European Union. Navigating the interactions between these regulations, in particular the privacy and fraud issues that can arise when sharing sensitive data, are ongoing challenges for the initiative.
- 3) **Engagement with consumers early on, and throughout the process of implementation, is key to addressing fears:** Communication with consumers and managing perceptions has perhaps been the largest challenge. It is hard to explain the reforms until there are example services to demonstrate. As the standard neared implementation, banks prioritised targeted communications directly to their customers and through general media. These communications have both explained the benefits and sought to reduce fears.

There are still some years to go before it can be determined whether the UK's open banking initiative has delivered on its desired outcomes, but the country's journey illustrates the feasibility of an OBS and offers lessons learned for other countries around the world.

The benefits of open banking for Mexico

The collection and use of data is transforming Mexico's financial services. Over the past few years, new trends have emerged: banks are using data to improve current services and create new ones. The country's diverse and growing FinTech sector is leveraging technology and data to provide new and improved applications and services for citizens.

Mexico has the largest FinTech ecosystem in Latin America³², which is supported by organisations such as the FinTech Hub, FinTech Mexico and Finnovista. Investors are eager to take advantage of the business opportunities presented by large, untapped markets in Mexico; the FinTech industry received [\\$186 million in venture capital investments in 2016](#),³³ with more than one-third going to startups.

Recent developments in Mexico's financial sector, including the passage of the FinTech law (Annex 4), and the emergence of public and open APIs, published by certain Mexican banks, are providing the foundations for open banking in the country. Among many benefits surrounding economic and social development, the adoption of open banking will empower Mexico to take part in and influence the international movement that includes the UK, Australia, Canada, Japan and Singapore, which are all exploring the potential of open banking to increase competition and improve the diversity of services available to citizens.

Regulating FinTechs: Mexico's FinTech Law

Mexico's Law to Regulate Financial Technology Institutions (known as the FinTech Law or '*Ley FinTech*') is a new regulation that formally regulates the

³² As of 2017 there were 238 active FinTechs in Mexico.

³³ Forbes (2017), 'FinTech startups attract capital investment in Latin America', <https://www.forbes.com/sites/mergermarket/2017/09/19/fintech-startups-attract-capital-in-latin-america/#2d8089fe4eeb>

burgeoning FinTech sector in Mexico. It passed into law in March 2018 and is the first of its kind at an international level.

The FinTech Law regulates crowdfunding, electronic payments and virtual asset management; proposes changes to existing regulations (see Annex 4); and introduces a regulatory sandbox to enable authorised companies to test business models in a controlled regulatory environment.

The law also regulates the Application Programming Interfaces (APIs)³⁴ of standardised software applications that allow to connect to and access certain interfaces developed by or managed by certain authorised parties or thirds, with the aim of sharing the following types of data:

- **open financial data:** information about products, branches and ATMs, for instance. This information is usually already accessible digitally.
- **aggregated data:** statistical information about operations carried out by or via regulated financial entities. This information is aggregated in such a way that personal data or data about a person's transactions cannot be identified. Only authorised parties can access this data.
- **transactional data:** information about the use of a product or service, for instance the transactions carried out, by a client belonging to a regulated entity. This information can only be shared following the client's expressed authorisation.

Finally, the law provides for the creation of a FinTech Council to exchange opinions, ideas and knowledge between the public and private sectors. The council will help regulators learn about the latest FinTech innovations and plan for future development and regulation.

Mexico's desire to promote and regulate the financial sector cements its international leadership in implementing legislation to help shape the future of the financial sector, and provides a foundation for the introduction of an open banking initiative.

³⁴ Article 76 of the FinTech law

Open banking industry efforts

Prior to the law, Mexican banks had already begun to share data through public APIs. For instance, Citibanamex has an international developer hub with 16 public APIs³⁵ available specifically for Mexico – this is more than are available in the United States. An analysis we conducted as part of our research concluded that these APIs are robust enough to align themselves with an upcoming OBS, although there are still certain considerations to be taken into account such as a need for more APIs and for data standardisation.

Banregio is another Mexican bank that is pioneering public APIs. Our research has shown that although adapting to the standard will require effort for Banregio, the architecture and service structure are already very similar to the specifications.

BBVA Bancomer also has plans to expand³⁶ its API Market³⁷, which provides eight commercially available APIs, to the Mexican market and the rest of Latin America in the near future.

“For Mexico, it is a great moment because almost no one has well-developed APIs. FinTechs have been developing APIs, but there is no standard definition of variables.”

- Vicente Fenoll, Founder, Kubo Financiero

An open banking standard would provide an opportunity to build upon this progress and provide a widespread standard to facilitate quicker and more efficient transactions for everyone.

³⁵ Citi Developer Hub, <https://sandbox.developerhub.citi.com/>

³⁶ Business Insider UK (2017), ‘BBVA puts its open APIs into the wild’, <http://uk.businessinsider.com/bbva-puts-its-open-apis-into-the-wild-2017-5>

³⁷ BBVA API Market, <https://www.bbvaapimarket.com>

From our interviews, desk research and workshops, which ran over a period of 5 weeks, we identified a range of benefits to different groups of stakeholders in Mexico:



Consumers can choose from more efficient and effective services



Those currently excluded from the financial services sector can have more options



Small businesses can access credit, and save time and money



Banks, FinTechs and financial institutions can be more competitive and reach new markets



Challenger banks and FinTechs can innovate, collaborate and grow



Investors can promote inclusive economic growth through new investment opportunities



Consumers can choose from more efficient and effective services

Open banking has the potential to benefit consumers, with increased competition leading to new and improved financial products and services.³⁸ By making it easier for consumers to share data with authorised third parties they trust, open banking can help consumers gain access to more efficient and tailored services, such as:

- Comparison sites for current accounts, and other utilities, that make recommendations informed by spending and saving habits
- More accurate credit referencing
- More accurate and faster loans and mortgages with better terms
- Better analysis tools for insurance companies
- More tailored pension products

These services can help people manage, move and control their finances more easily and advantageously.

In the UK, market research organisation [Ipsos MORI found³⁹ that 39% of bank customers would be willing to share financial data with third parties to gain an overall view of their accounts](#), with a reported [85% of 18–24 years olds⁴⁰](#) interested in these services. As a result of this demand and the possibilities provided by open banking, new services are emerging that provide people with more control over their personal finances, such as [Zaveapp⁴¹](#) in Mexico or [Squirrel⁴²](#) and [Coconut⁴³](#) in the UK, which help people create personalised budgets and view expenses. New types of products also include account comparison service [HSBC Connected Money⁴⁴](#) and [Moneyhub⁴⁵](#) in the UK, personal finance management app [Finerio⁴⁶](#) in Mexico, as well as [MoneyBrilliant⁴⁷](#) in Australia, which uses

³⁸ For example, the government of Australia divides the new type of products that could emerge into different categories: new banking or related services (eg risk mitigation services); new non-banking services using the data (eg analysis of spending behaviour); or improvements to existing non-banking services (eg better connections with accounting software). Source: Australian Treasury (2018), 'Review into Open Banking Australia', <https://treasury.gov.au/consultation/c2018-t247313/>

³⁹ Ipsos MORI (2015), 'Open API: Exploring the views of consumers and small businesses', <https://www.ipsos.com/sites/default/files/publication/1970-01/marketing-open-api-barclays-2015.pdf>

⁴⁰ Barclays Bank (2017), 'Open banking: a consumer perspective',

<https://www.home.barclays/content/dam/barclayspublic/docs/Citizenship/Research/Open%20Banking%20A%20Consumer%20Perspective%20Faith%20Reynolds%20January%202017.pdf>

⁴¹ Zaveapp, <http://zaveapp.com/en/>

⁴² Squirrel (2018), 'Meet Squirrel', <https://squirrel.me/works>

⁴³ Coconut, <https://getcoconut.com/>

⁴⁴ HSBC UK (2018), 'Connected money from HSBC', <https://webforms.hsbc.co.uk/ConnectedMoney/>

⁴⁵ Moneyhub, 'Welcome to Moneyhub', <https://www.moneyhub.com/>

⁴⁶ Finerio (2017), 'Finerio', <https://finerio.mx/>

financial data combined with data about household bills to help customers find cheaper gas and electricity deals.



Case study: Finerio - the Mexican startup moving the financial sales process from product-based to person-based

Launched in 2017, by Nick Grassi and José Luis López Amador, Finerio is Mexico's very first automated and free personal finance management platform (PFMP). Finerio enables users to have a clear view of their economic status by connecting their different bank accounts in one place, allowing them to create budgets and control their expenses, helping them create savings for future projects and by recommending the appropriate financial products for each user. It has more than 5,000 users and its key partnerships and collaborations include banks and FinTechs such as: SURA, BBVA Bancomer, Scotiabank, Santander, Payit and Kubo Financiero, and more. Finerio uses these partnerships to recommend personalised products and services to its users.

The challenge

Finance management has always represented an important challenge for most people, who struggle to keep track of their finances, save for different life events and to determine what financial service and provider best suits their needs and ambitions. In Mexico this is especially true: Finerio estimates that 90% of the population do not know where their money goes. This means that many people might not be saving money.

Finerio's solution

Finerio links with users' personal bank accounts, listing them in one place, providing an easy way for the user to see where their money is being spent. Different functionalities allow the user to set budgets and financial goals and to discover different relevant financial services. Based on the user's goals, saving plans and financial profile, Finerio then offers the financial products that are most relevant for them. Partner companies pay Finerio a commission for every service or product bought, enabling Finerio to be provided to users for free. Finerio moves the financial product sales process from product-based to person-based, leveraging the user's everyday information.

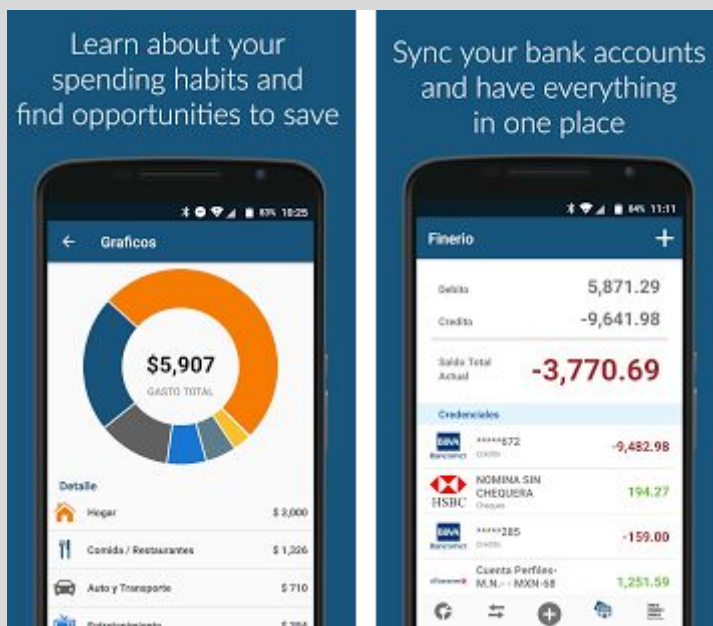
⁴⁷ MoneyBrilliant (2018), 'How it works', <https://www.moneybrilliant.com.au/how-it-works/>

How open banking would improve Finerio's value offer

Nick Grassi, Finerio co-founder, explains that the downside of not having APIs is that the financial institution is not included in the process and, thus, Finerio may be missing some information, or it may not be up to date. To date, the company has been relying on screen scraping, which means their processes can be easily affected by financial institutions' operations such as platform or system changes, or be blocked by these institutions.

Although Finerio can already access most of the information needed following clients' authorisation, Grassi estimates that an open accounts API would make the entire process easier and more accurate. This would allow for a real-time, secure, transparent connection between Finerio, the user and the financial institution.

Open banking would generate more confidence from users when using Finerio's services, give banks more direct insights into their customers and allow Finerio to provide additional customised services and benefits to the users. Examples of convenient services the company could provide for participating banks via open APIs include: the ability to block cards when stolen; the ability to set spending limits by category; and finding ATMs based on the user's banks, to name a few. Finerio anticipates that features like this, coupled with a higher level of confidence and security in linking accounts, would lead to increased user retention and satisfaction.



Finerio's personal finance management platform. Source: <https://finerio.mx/>



Those currently excluded from the financial services sector can have more options

Open banking has the potential to make it easier for innovators in financial innovation to access data to build new products and services that are adapted to the needs and limitations of those underserved by the current system. [Financial Inclusion](#)⁴⁸ is defined as ensuring ‘access to useful and affordable financial products and services that meet [people’s] needs... delivered in a responsible and sustainable way’. These opportunities can be further enhanced by introducing alternative and digital banking services, such as agent banking, mobile banking and electronic wallets (e-wallets) (for more information see Annex 2).



‘If you are defining financial inclusion as “people with bank accounts”, then you have an old definition. Really, we are not interested in people using banks, we [are] interested in people using financial products.’

- FinTech Expert

Data has traditionally been held by, and only been accessible through, large financial institutions. By allowing authorised third parties to access this data with consumers’ permission, open banking could contribute to lowering barriers for those providing financial inclusion services.

Achieving the full potential impact with an OBS in Mexico will require addressing the prevalence of financial and digital exclusion in the country: it is estimated that more [than 60%](#)⁴⁹ of Mexican citizens do not possess a bank account (the ‘unbanked’), and Mexico is [ranked lowest](#)⁵⁰ for financial inclusion in the Organisation for Economic Co-operation and Development (OECD) countries. Mexico also has a large informal economy: research indicates that 92% of the population prefers to pay in [cash](#)⁵¹ and, according to the [World](#)

⁴⁸ The World Bank (2018), ‘Financial Inclusion’, <http://www.worldbank.org/en/topic/financialinclusion/overview>

⁴⁹ Milenio (2016), ‘No tiene cuenta bancaria 56% de población en México’, http://www.milenio.com/negocios/poblacion_sin_cuentas_bancarias-encuesta_Inegi-CNBV-cuenta_de_nomina-Afore_0_756524366.html

⁵⁰ El Financiero (2017), ‘Mujer y exclusión financiera en México: de la retórica a la acción efectiva’, <http://www.elfinanciero.com.mx/opinion/isabel-cruz/mujer-y-exclusion-financiera-en-mexico-de-la-retorica-a-la-accion-efectiva>

⁵¹ Pymnts.com (2017), ‘Global Cash Index: Mexico Analysis’, <https://www.pymnts.com/cash/2017/in-mexico-ecommerce-has-a-crush-on-cash-usage-payment-methods-javier-vallaure-allpago/>

[Bank Findex](#)⁵², less than 14% of the population have access to formal savings and less than 10% have access to formal borrowing.



‘The two biggest challenges for financial inclusion in Mexico are the lack of trust in banks and the [prevalent] cash economy.’

- Amanda Jacobson, Head of Fiinlab, Genera

On the other hand, the number of unbanked people represents an untapped market. Open APIs create possibilities for meaningful collaboration between stakeholders to reach those who do not have access to traditional financial services. Many of the people interviewed for this report felt that an OBS could incentivise banks and other financial service providers to turn to the financially excluded.



‘The best way to generate financial inclusion in this country is through FinTechs or with electronic services that do not have branches or physical limits.’

- Gueorgui Popov, Director General, FIMPE

One model for promoting financial inclusion is for banks to collaborate with FinTechs to reach new customers. This model is used by the startup [Destácame](#)⁵³, which helps those excluded from traditional financial services due to the ‘vicious cycle of insufficient data’ by generating basic financial information for them through small recurring electronic payments. Once they have built a credit history, the company links their customers with banking services. A different model is adopted by [Afluenta](#)⁵⁴, which generates its own credit score using diverse sources of data to give crowdfunded loans to customers. An OBS can facilitate these type of interactions between FinTechs, customers and banks to help better meet consumer needs.



‘The pressures to lower prices through competition [may] naturally lead banks to reach out to the unbanked [...] there is also the possibility to get third parties to generate leads for banks via open APIs.’

- Vicente Fenoll, Founder, Kubo Financiero

⁵² World Bank (2014), ‘Global Findex’, <http://datatopics.worldbank.org/financialinclusion/country/mexico>

⁵³ Destácame, <https://www.destacame.com.mx>

⁵⁴ Afluenta, <https://www.afluenta.com>



Case Study: Destacame, the Mexican startup that promotes financial inclusion

Destacame is a digital financial management platform, launched by Sebastián Ugarte, Jorge Camus, Augusto Ruíz-Tagle, operating in Mexico and Chile. It empowers users by giving them control over data about them so that they can build their financial capabilities and access financial products. Launched in Mexico in mid 2017, the organisation now has more than 150,000 users and has created partnerships with 15 financial institutions.

The challenge

For Destacame, much financial exclusion occurs because of a lack of personal financial information. A financial service may block access to a person because it does not have access to sufficient data about their financial situation. This is a vicious cycle in which people are excluded from the financial system because they do not have sufficient data to acquire products and, thus, have no financial products that can help them generate their own financial data. This data could include balances, transfers, punctuality in payments, etc. Additionally, these same financial institutions do not have the resources needed to target these potential clients, which prevents them from expanding their services to certain market segments.

Destacame's solution

Destacame's platform empowers people to prove their reputation via the generation of data. With the consent of each individual, Destacame gathers their historical financial and non-financial information and presents it in a simple, transparent and user-friendly way so that the user can build a financial profile. As the platform understands a user's specific situation and needs, it can draw on Destacame's partnerships with 15 financial institutions to offer a full range of products, adapted to that person's profile. These products help users to pay overdue debt and to improve their creditworthiness by generating a credit score based on alternative information. Moreover, the platform also offers services and tools that promote financial education.

How open banking could improve Destácame's operations and service

An OBS would bring direct benefits to Destácame, its users and partner financial institutions.

With access to new data sources about users' banking accounts, such as current account movements or credit cards, Destácame would be able to gain a deeper understanding of each user's financial profile. This information would support the platform to further tailor product offers to its users in a frictionless process, which in turn would provide more insights to financial institutions. With this additional information, they could improve their credit assessment and onboarding processes, resulting in lower costs, while allowing them to serve the people who currently do not have enough information to access financial products.

Improving gender equality

In Mexico, [42% of women had a bank account in 2015, versus 46% of men](#),⁵⁵ and the country is ranked 81 out of 144 countries on gender equality by the [World Economic Forum](#).⁵⁶ Greater financial inclusion for women and girls can contribute to improving gender equality by empowering this segment of the population to have greater control over their finances. This financial control can contribute to elevate their position in the family and community, and reduces dependence on men for their livelihoods.

In turn, greater female empowerment can contribute to increased economic growth. Female entrepreneurs, who represent half of all entrepreneurs and the majority of the labour force in critical industries such as agriculture, represent an untapped market.⁵⁷ Increasing their access to financial services provides the opportunity for additional revenue and business growth. For example, in Nigeria, the [BETA account](#)⁵⁸ has extended financial services to women through agent and mobile banking, allowing 38,600 female shopkeepers to open up

⁵⁵ CNBV (2015), 'Encuesta Nacional de Inclusión Financiera', <http://www.cnbv.gob.mx/Inclusi%C3%B3n/Documents/Reportes%20de%20IF/Reporte%20de%20Inclusion%20Financiera%208.pdf>

⁵⁶ World Economic Forum (2017), 'Global gender gap report' <https://www.weforum.org/reports/the-global-gender-gap-report-2017>

⁵⁷ BSR (2016), 'Women's Empowerment in Global Value Chains: Framework for Business Action', <https://www.bsr.org/reports/BSR-Report-Womens-Empowerment-Supply-Chains.pdf>

⁵⁸ Apolitical (2018), 'BETA friends' bringing banking to low income Nigerian women' https://apolitical.co/solution_article/beta-friends-bring-banking-low-income-nigerian-women/

accounts with no minimum balance – over the phone or through agents who visit women at their market stalls.

To achieve this objective, financial service providers must take into account the challenges specifically dealt with by women when designing their solutions. The Consultative Group to Assist the Poor (CGAP), a global partnership of more than 30 leading organisations that seek to advance financial inclusion, identifies [five main challenges for women's financial inclusion](#).⁵⁹ The organisation claims:

- 1) Women excluded from financial services are harder to identify. Women are informationally disadvantaged with smaller and less diverse networks, and are less likely to receive referrals [to financial services or providers] from people within their networks.
- 2) Women are more difficult to reach through the usual channels that target men. Very few women report receiving wages into an account, for example.
- 3) Providers have less incentive to cater to women because the margins are smaller and women require more upfront investment to bring on as customers. Banks that successfully lend to female-owned SMEs often also provide non-financial services such as leadership training.
- 4) Social norms constrain women's demand for financial services, as women are not always encouraged to be financially independent or may be less mobile.
- 5) Women have less access to technology. It is estimated that 200 million fewer women than men own a mobile phone across low and middle income countries, which affects their ability to access digital finance.

The introduction of an OBS cannot address all of these challenges, but it can promote financial inclusion via a wider range of personalised financial products⁶⁰ tailored to meet the needs of traditionally excluded groups, including low-income women. By providing simpler services that are within reach through a few clicks on their phone, women with access to a mobile phone might feel more compelled to use them. New solutions might include the creation of alternative credit-scoring methodologies like Destacame's, but adapted to women's characteristics. FinTechs will play an important role by facilitating their access to financial services compared with larger organisations that might be

⁵⁹ Consultative Group to Assist the Poor (CGAP) (2017), '5 Challenges for Women's Financial Inclusion' <http://www.cgap.org/blog/5-challenges-women%E2%80%99s-financial-inclusion>

⁶⁰ Women's World Banking (2016), 'Accelerating women's opportunity' <http://www.womensworldbanking.org/annualreport2016/>

more prone to de-risking practices. Annex 2 shows Complementary services and policies to address financial and digital inclusion



‘I think that banks will be forced to reach out to [the unbanked] to engage them to expand our business model. Banks are starting to think about questions of inclusion as core elements of their business.’

- Juan Guerra, CIO, Citibanamex

As open banking is rolled out, the creation of financial products oriented to women should consider the unique user experience and branding needs⁶¹. This being said, McKinsey’s [Mobile money in emerging markets: The business case for financial inclusion](#) report explains that, while this market provides both significant and attainable opportunities for providers, these will need to undergo a cultural shift to succeed. “[Providers] will need to invest for the long term and be prepared to work in new ways, including through partnerships with other types of firms,” the report states. Incremental action or continuing along the lines of what they are already doing will not suffice.

Promoting women’s financial inclusion, however, must be supported by other mechanisms such as increasing digital connectivity and literacy, and through alternative models of financial services provision, such as agent banking and mobile financial services, that help extend the financial system to more people. Ensuring gender equality and women’s financial inclusion remains a priority for Mexico and should be an explicit target of the open banking initiative, with specific metrics to measure progress.

⁶¹For recommendations regarding best practices in serving low-income women, see Women’s World Banking (2016), ‘Accelerating women’s opportunity’ <http://www.womensworldbanking.org/annualreport2016/>



Small businesses can access credit and save time and money, fuelling growth

An emerging benefit is increasing access to credit and other forms of finance for SMEs. Currently, the [World Bank estimates](#)⁶² that around half of SMEs in developing markets have unmet credit needs of US\$2.1-US\$6 trillion. Open banking could help create products that help SMEs share data to obtain better borrowing terms, compare quotes from finance providers and access new lines of credit. These use cases were surfaced by FinTechs in the UK, such as Credit Data Research, Funding Xchange and iwoca [during Nesta's Open Up Challenge in 2017](#)⁶³. Filling this funding gap for SMEs has the potential to fuel economic growth across sectors.

This use case could be particularly influential in Mexico. Although SMEs form a considerable proportion of economic activity in Mexico (the National Commission for the Protection and Defense of Users of Financial Services [estimates](#)⁶⁴ they generate more than 70% of employment and 50% of GDP), according to one of our interviews, only 6.6% of bank loans go to SMEs. Companies like [Afluenta](#)⁶⁵, which generates its own credit score using diverse sources of data to give crowdfunded loans to customers, are set to benefit from an OBS.

The ability to share data between banks and third parties could also help SMEs reduce paperwork, automate their tax reporting and cut time spent on accounting services. Services that save time and money free up SMEs to engage in more productive activities that contribute to the economy and fuel economic growth.

⁶² International Finance Corporation (2017), 'Alternative data: Transforming SME Finance', <http://documents.worldbank.org/curated/en/701331497329509915/pdf/116186-WP-AlternativeFinanceReportlowres-PUBLIC.pdf>

⁶³ Open Up Challenge (2018), 'Who's behind this?', <https://www.openupchallenge.io/background-all>

⁶⁴ CONDUSEF, 'Pymes', <http://www.condusef.gob.mx/Revista/index.php/usuario-inteligente/educacion-financiera/492-pymes>

⁶⁵ Afluenta, <https://www.afluenta.mx/>



Banks, FinTechs and financial institutions can be more competitive and reach new markets

Open banking may be seen as challenging for traditional banks, as it can increase competition from FinTechs and other financial actors. This is part of a global trend, with research finding that 88% of [banks are concerned](#)⁶⁶ that they are losing revenue to innovators. However, the same research finds that 63% of banks see the rise of FinTech as an opportunity to expand their products and services. Research shows 81% of Mexican banks expect to increase their partnerships with FinTechs in the next five years, although only 31% are currently investing in partnerships. The introduction of an OBS is an important stimulus for banks to proactively respond to these trends by improving services, building trust with consumers and growing the ecosystem around their business.

In the UK, every bank affected by the open banking regulation was also registered as a third-party provider. This gives banks the opportunity to become a consumer, as well as provider, of open APIs from other banks and develop their services, such as by bringing in data from accounts held by other banks to develop more comprehensive banking services for consumers.



'The Open Banking Standard should be seen as a way to connect different groups from the financial sector.'

- Fernando Padilla, Founder, Pretmex, and VP, ASOFOM.

Established banks can benefit from open banking by partnering with FinTechs to expand their offering and provide new and improved services in this environment of increased competition. In Mexico, Citigroup has partnered with América Móvil to offer mobile banking services through its [transfer](#)⁶⁷ venture, while HSBC has recently partnered with [Banregio](#)⁶⁸

⁶⁶ PWC (2017), 'Global FinTech report',

<https://www.pwc.com/gx/en/industries/financial-services/assets/pwc-global-fintech-report-2017.pdf>

⁶⁷ Financial Times (2011), 'Citi and América Móvil in mobile banking venture',

<https://www.ft.com/content/b5cfe096-f12f-11e0-b56f-00144feab49a>

⁶⁸ BanRegio, <https://www.banregio.com/>

and venture capital firm IGNIA to invest in [Startupbootcamp](#),⁶⁹ a FinTech accelerator supporting innovation in Latin America. The bank BBVA Bancomer also runs an [Innovation Labs](#)⁷⁰ initiative to surface and develop new ideas sourced from both within and outside the bank. It is the largest of its kind in Mexico, with more than 1,000 employees. With banks like Citibanamex and BBVA Bancomer also investing in open APIs, there is the potential for an OBS to fuel greater competition and user-focused innovation.



'The Open Banking Standard provides a great opportunity to create a better value proposition for existing clients and potential ones. [With this in mind,] BBVA Bancomer already has a sandbox and has been working with 20 startups, testing their solutions.'

- Bank Innovation Expert

As open banking is rolled out in the UK, Barclays is [partnering with FinTech Flux](#)⁷¹ to trial paperless receipts with 10,000 customers, while HSBC is partnering with FinTech [Bud](#),⁷² which uses open APIs to integrate technology and data from different banks, to produce HSBC Beta, allowing customers to see accounts from the 21 largest banks on one screen.



'For existing financial services firms, [the] open banking represents a need for change... financial services companies must follow the client more closely, add more value and, to achieve this, they must collaborate with the tech ecosystem.'

- Juan Guerra, CIO, Citibanamex

These partnerships allow banks to explore new technologies without needing to invest in internal capabilities. They also enable banks to build relationships with new audiences, which may encourage uptake of their core products, and build trust with consumers by partnering with companies that may be more agile and responsive to consumer needs.

These kinds of partnerships and regulations can serve to increase trust among consumers. In Mexico, our survey of the sector found that while 29.4% of respondents expressed low

⁶⁹ Finextra (2017), 'HSBC backs Startupbootcamp FinTech Mexico', <https://www.finextra.com/newsarticle/31068/hsbc-backs-startupbootcamp-fintech-mexico>

⁷⁰ BBVA (2017), 'Welcome to BBVA-Labs', <https://www.bbva.com/en/welcome-bbva-labs/>

⁷¹ Out-Law.com (2017), 'Collaboration between banks and fintechs will be at the heart of 'Open Banking',

<https://www.out-law.com/en/articles/2017/december/collaboration-between-banks-and-fintechs-will-be-at-the-heart-of-open-banking/>

⁷² Bud, <https://thisisbud.com/>

levels of trust in banks and 59.1% in the government, a mere 18.2% expressed low levels of trust in FinTechs when it came to protecting financial data. Collaborations between banks and other financial institutions, especially FinTechs, and the passing of regulations such as the OBS contribute to an increase consumer trust.



‘If you combine the distribution of a bank with the innovation of a startup, all [will] win: the bank, the startup and the client above all. Banks have the opportunity to become platforms and remain relevant.’

- Tiago Spritzer, Chief Technology Officer and Managing Director, CitiBanamex



Challenger banks and FinTechs can innovate, collaborate and grow

An OBS can help fuel growth among challenger banks and FinTechs by levelling the playing field between large banks, which have access to large amounts of data about consumers, and smaller organisations, which have less. With the [top seven banks owning 78%](#)⁷³ of market share in Mexico, open APIs can help [reduce the risk of ‘data monopolies’](#)⁷⁴ and encourage the growth of healthy competition between providers in the financial sector.



“The Open Banking Standard provides an opportunity to medium banks to become more relevant. It is important these banks develop strategic mechanisms to capitalise on it.”

- Oscar Salcedo, Director of Digital Banking, Multiva

As well as creating opportunities for FinTech collaboration with banks, open banking can stimulate new business models based on aggregating data. In the UK, startup [True Layer](#)⁷⁵

⁷³ Export.gov (2017), ‘Mexico - banking’, <https://www.export.gov/article?id=Mexico-Banking-Systems>

⁷⁴ Jeni’s Musings (2018), ‘Doesn’t open data make data monopolies more powerful?’, <http://www.jenitennison.com/2018/01/14/data-monopolies.html>

⁷⁵ True Layer, <https://truelayer.com/>

is [building APIs](#) that enable organisations to access data from banks without having to design their own integrations. This streamlines the process of accessing data so FinTechs can focus on user experience. As similar business models have been seen in other sectors, such as transport with organisations like [Transport API](#)⁷⁶ and [Ito World](#)⁷⁷, it is likely there will be more over the next few years.

More legislation of the financial sector may also fuel more regulatory technology (RegTech), which '[focuses on technologies that may facilitate the delivery of regulatory requirements more efficiently and effectively than existing capabilities](#)'⁷⁸. A growing RegTech sector can help financial institutions improve processes, manage risks and enact an OBS. For instance, the UK's OBIE has [selected RegTech firm Contego](#)⁷⁹ to support the proofing and verification processes for introducing open banking. RegTech is likely to become more important worldwide as open banking legislation is introduced.

Meeting the challenge: 'GAFA' and challenger banks

As non-financial actors move into the financial space, banks and financial institutions must actively respond and seize the benefits of open banking to remain competitive.

Challenger banks, small retail banks and tech companies are gaining trust by being agile and flexible in response to consumers' financial and technology needs.

[Research](#)⁸⁰ finds that 31% of consumers globally would switch to Google, Amazon, Facebook, Apple (GAFA) for banking services, if they were to provide them. This is becoming a reality as Facebook [has recently gained e-money licences in Ireland and Spain](#).⁸¹ Messaging service WhatsApp has also [introduced a payment service in India](#).⁸²

⁷⁶ Transport API, <https://www.transportapi.com/>

⁷⁷ ITO World, <http://www.itoworld.com/>

⁷⁸ Financial Conduct Authority (2016), 'Feedback statement: Call for input on supporting the development and adoption of RegTech', <https://www.fca.org.uk/publication/feedback/fs-16-04.pdf>

⁷⁹ Lend It FinTech News (2018), 'Regtech Firm Contego Chosen for Open Banking Verification', <http://www.lendit.com/news/2018/01/19/regtech-firm-contego-chosen-open-banking-verification/>

⁸⁰ Accenture (2017), 'Financial providers: transforming distribution models for the evolving consumer',

<https://www.accenture.com/us-en/insight-financial-services-distribution-marketing-consumer-study>

⁸¹ FinTech Switzerland (2017), 'Facebook Payments Registered as E-Money Entity in Spain', <http://FinTechnews.ch/mobilepayments/facebook-payments-registered-as-e-money-entity-in-spain-and-ireland/8931/>

⁸² Scroll.in (2018), 'WhatsApp gets NPCI nod to launch payments service in India for one million users', <https://scroll.in/latest/869034/whatsapp-gets-npci-nod-to-launch-payments-service-in-india-for-one-million-users>

In Mexico, our survey found that respondents express a higher level of trust in GAFAs than in the government when it comes to protecting financial data, but a lower level of trust in comparison to banks and FinTechs. Worldwide, traditional financial institutions will need to proactively respond and invest in innovation to meet this challenge.



Investors can promote inclusive economic growth through new investment opportunities

Open banking has the potential to directly increase economic growth by directing investment towards new opportunities. The soaring investment in Mexican FinTechs [is expected to get a further boost](#) following the approval of the FinTech law in early March 2018, thanks to increased investments (including from abroad). This opportunity is particularly significant in Mexico, [where one of the highest intended FinTech adoption is expected](#)⁸³ among consumers.

Open banking also presents the opportunity for investors to access account data and use services that help vet potential investees, understand risk and complete due diligence. These products are already growing; software from American firm Kensho Technologies [uses artificial intelligence \(AI\) to help provide responses to difficult investment questions](#)⁸⁴, while Mexican startup [Bayonet](#)⁸⁵ uses data to collectively assess risk. As these technologies become more widespread and accessible, the rate and frequency of successful investments is likely to increase, especially if investments are made in building the [open banking infrastructure](#) of the investment banking sector⁸⁶.

The international attractiveness of Mexico's FinTech ecosystem, paired with the regulatory certainty of the FinTech law and business models based on targeting financial inclusion,

⁸³ EY (2017), 'FinTech adoption index', [http://www.ey.com/Publication/vwLUAssets/ey-fintech-adoption-index-2017/\\$FILE/ey-fintech-adoption-index-2017.pdf](http://www.ey.com/Publication/vwLUAssets/ey-fintech-adoption-index-2017/$FILE/ey-fintech-adoption-index-2017.pdf)

⁸⁴ Deloitte (2017), 'How to flourish in an uncertain future: Open banking and PSD2', <https://www2.deloitte.com/content/dam/Deloitte/cz/Documents/financial-services/cz-open-banking-and-psd2.pdf>

⁸⁵ Bayonet, <https://bayonet.io/>

⁸⁶ Open Data Institute (2017), 'An open approach to investment banking', <https://theodi.org/article/using-data-to-take-an-open-approach-to-investment-banking/>

indicates that the conditions are right for an OBS to help generate benefits for the entire financial ecosystem and the economy as a whole.

Future considerations

From our interviews, we identified the following key challenges that should be considered when approaching the implementation of an open banking initiative.

Involving a broad range of stakeholders

The FinTech law does not address the wider relationship between banks, FinTechs and mobile carriers. Given most FinTech services are carried out via mobile apps, it is critical that mobile carriers are engaged in the implementation of Mexico's open banking initiative.

Approximately [12% of Mexicans \(about 16 million people\) still do not have mobile phones⁸⁷](#). There are issues with weak connectivity and few points of service in rural areas. The banking sector should consider mechanisms to enhance offline payments to e-wallets via smart ATMs, or enable offline payments.



'If most FinTech services are done via mobile apps, then the relationships between carriers, and banks and FinTechs must be considered.'

- Gueorgui Popov, Director General, FIMPE

Our discussions with interviewees highlighted the need to examine the role of digital payment providers, credit bureaux and mobile carriers, as well as public and third sector organisations that focus on consumer rights and financial inclusion. These stakeholders should be included in the discussion for the reasons mentioned below.

Addressing identity verification and fraud

A problem that stakeholders from all sectors highlighted as a challenge to tackling financial inclusion is the lack of existing standards for identity verification. This discussion is not unique to Mexico. That said, in Mexico databases used to manage personal information are reportedly fragmented, unstandardised and difficult to access or verify. One of our

⁸⁷ Statista, 'Number of mobile phone users in Mexico from 2011 to 2020 (in millions)', <https://www.statista.com/statistics/274700/forecast-of-mobile-phone-users-in-mexico/>

interviewees shared that it is not uncommon for a Mexican citizen to possess more than one INE (National Electoral Institute) card, the *de facto* ID for legal transactions. This makes it difficult for financial service providers to correlate data with the specific people who have the rights to it, or to identify falsified information. It is also one of the reasons behind the high prevalence of fraud in Mexico.

In June 2017, the Mexican government took action to create a standardised database because of the [46.6% of duplicated or even triplicated registries](#), if not more, in the overall estimated population, and arrived at the conclusion that this could not be achieved in the short to medium term because of the lack of reliable information and the resources needed

⁸⁸



'In Mexico we have a serious issue with falsification of information. With open APIs you can request this information from the clients and this will make things much easier.'

- Vicente Fenoll, Founder, Kubo Financiero

Companies like [Bayonet](#)⁸⁹ are seeking to address this issue by working with payment service providers and banks to help companies in the financial industry create new and dynamic risk-assessment models. They have created an API that cross-references data points to distinguish one digital user from another, without sharing personal information, so payment processors and online businesses can know the reputation of every online client, reducing exposure to fraud. Open banking may present opportunities to support these business models.



Case study: Bayonet, the Mexican FinTech bringing the industry together to halt fraud

Founded in 2016, Bayonet provides a system that helps merchants and

⁸⁸ El Economista (2017), 'Ni Cédula, ni Clave Única son una realidad en México', <https://www.eleconomista.com.mx/politica/Ni-Cedula-ni-Clave-Unica-son-una-realidad-en-Mexico-20170703-0020.html>

⁸⁹ Bayonet, <https://bayonet.io/>

companies in the financial sector to mutually protect themselves through secure data cross-referencing. They allow companies to access reputational profiles about digital economy users via historic and real-time data in order to accept transactions coming from users with good reputation, leaving fraudulent users aside.

The challenge

Visa estimates that in 2017 alone, over US\$1.3 billion were lost to fraud-related issues in Latin America's ecommerce, which is worth US\$72 billion. Mexico is the country with highest fraud rate, and at the same time, the highest transaction rejection rate: over 2.2% of the transactions in Mexico's e-commerce result in fraud, while 13.9% of them are rejected. Bayonet's team experienced this problem first hand while working with the financial and retail industries and decided to create its own solution. The founding team had tested solutions from fraud-prevention vendors and other similar tools and understood that a different approach was required.

Bayonet's solution

Bayonet is the interconnector within multiple online business that allows companies to understand users' reputations without hurting their intellectual property or risking user data. The company's cloud-based solution gathers existing information about online shopping behaviour, online credit requests and other online interactions of a user within the ecosystem of connected companies in order to build reputational profiles of "personas", or sets of parameters that belong to the same individual, via an algorithm. As the "persona" interacts with members of the ecosystem, information is linked to its profile. Companies can then consult this collective repository of data to make decisions and feed their decision models. The system only stores "tokenised" data (information passed through a cryptographic hash function), this means that no sensitive information is present in the database that renders the service.

How open banking would improve Bayonet's value offer

Currently, merchants and financial institutions using Bayonet (connected to the APIs) share information when they receive a payment transaction or loan request. When using the service the companies feed the database, as they are required to update the status of the transaction they have assessed (whether they accepted or rejected it). Only tokenized information is stored.

Open APIs would help Bayonet access certain information that would improve its service, including:

- 1) **Chargeback status information.** Directly accessing the status of a transaction via the bank's (standardised) authorization code would allow

Bayonet to immediately know which transactions resulted in a chargeback and update the persona's profile, allowing all the ecosystem to access better quality data. Currently, there is a significant delay in alerting a merchant after a bank generates a chargeback status.

- 2) **Data to validate if a name, telephone number or address matches with a card number or bank account.** This can work through "challenges" in order to ensure privacy. The open API would allow a company to validate a certain name, telephone number or address through a simple match/no match/partial match system. This would help in preventing unauthorised use of cards without bridging sensitive information, reducing fraud rates considerably.
- 3) **Ability to know when a certain card has been reported as stolen.** Bayonet's service would be considerably improved if it could be informed of, and block the use of, cards reported as stolen. This would help fraud prevention tools be more proactive and identify fraudulent users who try to use stolen cards online.
- 4) **APIs for better chargeback dispute process.** The chargeback dispute process is currently predominantly manual. If this process could be automated/partially automated, it would free up merchants' time and resources currently allocated to this.

Open APIs can be beneficial for Bayonet as a company in many ways. It is at the front and centre of the digital economy in Mexico, so it has understood the benefit of being able to access financial information to benefit the company. Bayonet currently uses APIs extensively within its different internal systems, and also have API connections with third-party services, which has allowed it to understand the benefits and challenges that APIs present. According to the company, the biggest challenge when working with an API is trying to make sense of what the API does, and how to consume it. It claims most APIs do not have good documentation, which makes them time consuming to integrate. A lot of APIs also do not have proper versioning scheme, which breaks integrations when any non backwards compatible changes are introduced to the API.

Creating common technical standards

Many organisations reported facing barriers that stem from poor infrastructure in Mexican banks and varying data standards and communication protocols among the systems' stakeholders. An OBS, with a secure standardised protocol of communication based on modern cryptography, would enhance the services that organisations provide to citizens by improving data quality and making their collaboration seamless.

Likewise, a standard protocol for APIs is needed. APIs are expected to form part of the secondary regulations to the FinTech law and would help both banks and FinTechs implement interoperability with other institutions globally. Specific needs that were mentioned by interviewees included simple coding, a consistent data structure and [RESTful APIs](#)⁹⁰; these tools would enable businesses to map and exchange data without errors.

Standards work best when they are adopted widely and frequently used. The OBS should reuse and align with existing open standards, datasets, structures and semantics wherever possible to ensure greater levels of use across the FinTech sector. Gaining the most impact with an OBS will ensure that the standard is interoperable with other highly regulated sectors, such as energy, water and telecoms. This will encourage the expansion of open APIs into other sectors (an approach that has been adopted by Australia), as well as with other countries that have adopted an OBS internationally.

Designing an appropriate governance structure

The need for a technical standard raises the question of administering the standard. In the UK, the OBIE was established and funded by banks to perform this role. Mexico could consider a similar structure, creating an entity with faculties and scope similar to the OBIE but adapted to local conditions. The eventual roadmap also needs to consider whose responsibility it is to monitor that the APIs are technically sound, and that data is being used in ways that comply with legislative and ethical standards.

Supporting FinTech capability to implement

A concern among the FinTech community is that the technical and regulatory standards of an OBS could create a barrier to entry for new FinTechs, even though the FinTech law establishes differentiated regulation among the actors of the financial sector. Working with banks involves regulatory compliance, which can be expensive and time consuming. There should be a sufficient transition period for implementation with clearly defined standards. The inclusion of an open banking-specific regulatory sandbox will allow for a sufficiently agile regulatory environment that should enhance rather than stifle innovation.



‘Once you start working with a bank, there are a lot of regulations you have to abide by.... for an early start-up, this regulatory compliance is not easy, or cheap.’

- FinTech Expert

⁹⁰ Search Microservices, ‘Definition RESTful API’, <http://searchmicroservices.techtarget.com/definition/RESTful-API>

In addition, practical guidance on APIs and technical standards are needed to help FinTechs and challenger banks understand the business opportunities and technical requirements. For example, in Singapore the Monetary Authority and Association of Banks has introduced an API Playbook. An assessment should be conducted to understand levels of preparedness to implement an OBS in Mexico and identify any capacity-building needs.



‘FinTechs will have to comply with AML [money laundering prevention regulations] and also Know Your Customer (KYC) and other regulatory compliance... FinTechs have very small teams, so [giving sufficient] time for implementation is important.’

- Vicente Fenoll, Founder, Kubo Financiero

Open by default, private by design data strategy

Successfully implementing an OBS in Mexico requires balancing concerns around security, identification and the risk of adverse impact on individuals and groups of people, without hampering the sharing and reuse of data. This will help ensure that data sharing produces benefits while addressing possible risks.

Certain players in the financial sector we surveyed were concerned about how issues of security, identity and corruption may affect the success of an OBS in Mexico. Particularly as methods of authenticating customer identity are not always a reliable form of identification, regulators may consider strengthening identification requirements to increase security and prevent fraud and money laundering..

The lack of a strong identity infrastructure is particularly important in the context of [‘de-risking’](#)⁹¹, where larger banks terminate their relationship with smaller correspondent (partner) banks in other countries or raise due diligence barriers because of security and money-laundering concerns; this may lead to the closure or blocking of accounts deemed to be high risk, or affect the ability of consumers to make international payments. Although the impact of de-risking has been most notable for consumers in the Caribbean, Mexican regulators should be aware and take steps to address the concerns of both parties in correspondent bank relationships and prevent high levels of de-risking.

Consequently, when considering security issues, actions should also be taken to mitigate a possible negative impact on financial inclusion. Striking this balance would be essential to ensure benefits are shared equitably in Mexico.

Nonetheless these security concerns should not prevent financial data from being as open as possible, via secure sharing and open APIs. Encouraging consumers to share data about them will require helping them to understand what is happening, and helping them to feel

⁹¹ ACamsToday (2017), ‘De-Risking and Financial Inclusion’, <https://www.acamstoday.org/de-risking-and-financial-inclusion/>

confident the data is secure. Creating informed consent will require both technical solutions, and raising consumer literacy about the value of data and its reuse potential.

Furthermore, policymakers should also address the need for data protection and anti-discrimination legislation in the context of increased sharing of data. New technologies present opportunities for discrimination against both individuals and groups of people, and the widespread use of data without [ethical guidelines](#)⁹² may mean the majority of these instances go unnoticed. The government should review anti-discrimination and data-protection legislation and the capability of regulators to enforce these, to ensure they are kept fit for purpose as the OBS, and the new services it enables, evolve.

Finally, Mexico's Federal Law for Personal Data Protection should further examine the need for informed consent, and how to raise awareness and understanding for consumers of when to share data and when not to. To address this challenge, the organisation tasked with developing the OBS must provide consent guidelines and design patterns that outline how organisations request consent from consumers. In parallel with these activities, consumer awareness and understanding should be addressed as part of the communications activities in the implementation roadmap for a Mexican OBS.

Building trust in institutions

Another consideration for open banking is the low levels of trust held by some consumers and those in the sector towards government and financial institutions. In our survey, 53% of respondents expressed very low to medium levels of trust in banks to protect financial data and handle transactions, with a similar percentage expressing low trust in the government handling this data. With only [33% of consumers in a 2016 worldwide survey](#)⁹³ trusting banks to provide them with unbiased advice, financial institutions wishing to gain the full potential of open banking should take steps early on to address this challenge.

International experiences show a need to engage consumers to raise awareness, communicate benefits and dispel myths about open banking. The UK has seen low levels of consumer literacy on the topic, with [92% of consumers](#)⁹⁴ unaware of open banking and [70% in a different survey](#)⁹⁵ saying they would not trust a third party as much as their bank. This may be influenced by media reporting, which has highlighted the potential for the data sharing to result in a loss of control, and many consumers being unaware that third parties accessing data are accredited in the same way as banks.

⁹² The Open Data Institute (2017), 'Why we need the data ethics canvas', <https://theodi.org/article/why-we-need-the-data-ethics-canvas/>

⁹³ EY (2016), 'Global consumer banking relevance survey', [http://www.ey.com/Publication/vwLUAssets/ey-global-consumer-banking-relevance-survey/\\$FILE/ey-global-consumer-banking-relevance-survey.pdf](http://www.ey.com/Publication/vwLUAssets/ey-global-consumer-banking-relevance-survey/$FILE/ey-global-consumer-banking-relevance-survey.pdf)

⁹⁴ Which? (2017), 'Open banking: 92% of the public in the dark', <https://www.which.co.uk/news/2017/10/open-banking-92-of-the-public-in-the-dark/>

⁹⁵ Accenture (2016), 'Consumers' initial reactions to the new services enabled by PSD2', https://www.accenture.com/t00010101T000000Z_w_/gb-en/_acnmedia/PDF-29/Accenture-UK-Banking-PSD2-Consumer-Reactions.pdf

Communicating the benefits of open banking encourages greater uptake, with one study finding that [39% of bank customers](#)⁹⁶ showed interest in using data-sharing services that open banking could facilitate. Consequently, increasing consumer literacy about open banking is key to increasing trust and uptake of the initiative. Stressing the ethical use of data by organisations will also help build this trust.

In Mexico, building trust is likely to involve working with local organisations in communities, which tend to have higher levels of trust among consumers, as well as communicating to consumers that open banking is secure, third parties are vetted and that consumer control and consent is of critical importance.

Gaining buy-in and funding the costs of open banking

Another consideration for implementing open banking will be ensuring buy-in from across the sector to implement the standard. Gaining support from the dominant banks will be particularly important, as well as a collaborative decision on how the changes will be funded. Government regulators and trade bodies can use their convening power to gain this support.

The costs of open banking can be balanced through cooperation; in the UK, the nine banks responsible for implementing open APIs (the 'CMA9') have split the cost of funding the implementation entity based on their relative market share. The rise of FinTechs and non-traditional financial institutions, such as technology companies, mean the costs of implementing open APIs now are likely to pale in comparison to loss of future revenue without modernisation.

Although in the short term there will be additional implementation costs for individual banks, for example to upgrade technology, this presents an opportunity to reduce costs and improve response times over time by streamlining IT architecture. Banks should assess the strategic impact of open banking to their operations. Defining and evaluating use cases can be a helpful way of estimating gains and losses, while identifying necessary changes in organisation culture and talent pool.

Leveraging Mexico's international experience in data standard developments and implementation

Over the past five years, Mexico has demonstrated exceptional leadership in open data at an international level. Mexico's National Digital Office (CEDN) – the government entity in charge of ensuring that technology and innovation help achieve the country's main development objectives – contributed to the development of the international [Open Data Charter](#) and led the effort for federal governments across the world to sign it. The entity created an official [open data national platform](#) that gathers open data from across the

⁹⁶ Ipsos MORI (2015), 'Open API: Exploring the views of consumers and small businesses', <https://www.ipsos.com/sites/default/files/publication/1970-01/marketing-open-api-barclays-2015.pdf>

government, states, municipalities and autonomous bodies in an accessible and comparable format, with the aim of fostering innovation.

Mexico was also the first country in the world to publish information on the planning, tendering, awarding, contracting and implementation procurement stages using the Open Contracting Data Standard, as part of the Open Contracting Partnership.

The Mexican Government's experience will be an essential input for the development of the OBS. It would be important for the country to contribute to building a peer network that connects the international open banking initiatives. This would enable the country to learn from international experiences, share lessons from its experience, help build momentum for an international standard, and establish Mexico's place as a leader in the open banking movement.

Although not directly linked to the OBS, there are also certain other considerations that will have to be taken into account to unleash the standard's full potential, such as: reducing friction in digital payment services, modernising the credit bureau, and involving a broad range of stakeholders in the process. These considerations are analysed in annex 3.

Roadmap for implementation and adoption

Introducing open banking in a way that provides benefits across the financial sector in Mexico will require action over a number of years from various stakeholders. From our initial research and engagement we recommend prioritising the following actions:

1) Lay the foundations for sustainable open banking infrastructure in Mexico

Building on the recent FinTech legislation and Mexico's strong financial sector to create a sustainable initiative by:

- i) **researching consumer needs** for new financial services (including by underserved groups such as female small-business owners), to look at potential barriers towards implementation of the open banking initiative and to ensure these consumer needs are addressed during development phases
- ii) **agreeing desired objectives and impact targets** that can be supported by all major stakeholder groups over the next two to five years, for example better services for financially excluded consumers, and reducing financial exclusion to a particular percentage by a given date
- iii) **assessing the capability of the financial sector to implement the needed changes** by researching current capability (such as mix of organisational sizes and business models, product offerings, geographic spread and workforce skills), capacity needs and existing plans for future growth and product/service development
- iv) **establishing an open banking working group (OBWG)** comprising experts from banking, data, retailer, business, and experts in the type of desired outcomes (such as increasing financial inclusion and gender equality) that are agreed as

objectives. The OBWG should be tasked with the implementation of an OBS, along with plans and deadlines for how this will be implemented, funded, governed and iterated. Its chair should be widely trusted across the sector. See *Annex 9 for a suggested plan and timeline for a Mexican OBWG.*

- v) **creating a cross-sector group among the government agencies involved in the development and implementation of an OBS** to build on the FinTech law regulations and further define responsibilities and oversight. This group would include the National Banking and Securities Commission (CNBV), Bank of Mexico, the Ministry of Finance and Public Credit, the National Commission for the Protection and Defense of Users of Financial Services (CONDUSEF), the National Commission for Retirement Savings (CONSAR) and the National Insurance and Bonding Commission (CNSF)
- vi) **introducing milestones for standard development and expansion**, keeping within the two-year time frame of the FinTech law. For example, read APIs by early 2019, payment APIs by late 2019, updated identity infrastructure and mobile wallets by 2020. See *Annex 7 for more details on UK API specifications*
- vii) **agreeing on a long-term funding and governance model** that is right for the Mexican context, drawing from examples elsewhere. See *Annex 6 for more information on the UK open banking governance model*
- viii) **setting up an open banking-specific regulatory sandbox to test innovations safely** to allow banks, FinTechs and other innovators to boost innovation by testing new products and services safely before releasing to the wider market. Open dialogue with regulators through a sandbox process would enable regulators to understand new ideas and help address both risks and benefits to consumers early on. See *Annex 8 for more on the regulatory sandbox in the UK*
- ix) **engagement across the finance sector and beyond** prior to and during implementation, including with businesses, trade associations and civil society organisations through open consultation. Co-creating a 'consumer manifesto', for example, will help to create consumer awareness of the open banking initiative, and establish shared objectives

2) Grow the ecosystem

Change cannot be delivered by a single central organisation in Mexico. In the mid- to long- term, a diverse ecosystem needs to be built around the open banking initiative to deliver the full benefits for consumers, businesses, startups, banks and government, by:

- i) **supporting organisations that help deliver desired objectives such as financial inclusion**, for example by meeting their needs on open government data, funding community organisations tackling financial inclusion, digital inclusion and financial literacy
- ii) **building the capability of the Mexican financial sector to deliver the roadmap**, through interventions to fill the gap between current and needed capability, such as development and release of practical guidance on technical requirements for APIs
- iii) **running innovation challenges that encourage industry to develop solutions using open banking**, for example like the UK's [Open Up Challenge](#). These challenges and pilots could be focused on particular problems Mexico wants to tackle and that the market is unlikely to address by itself.
- iv) **creating a pilot to understand challenges and opportunities**. The partners behind this report, together with the National Digital Office, are working on the development of a first pilot, which would be run under the [Labora](#) brand, to lay the groundwork for the Mexican Open Banking Standard. This would involve understanding what main type of data FinTechs are interested in, then working with two government banks in Mexico to release this data and finally bringing everyone together to design potential APIs.
- v) **reviewing relevant complementary legislation**, for example data protection and anti-discrimination laws, to ensure the benefits of open banking are applied equitably, following ethical principles
- vi) **developing and/or contributing to an international peer network** of regulators, policymakers and organisations delivering open banking initiatives in other countries. Mexico should influence and learn from the growing international movement, and harness the opportunity to show leadership by contributing to emerging international standards

3) Learn and adapt

This phase should occur throughout the entire period of design and implementation, and focuses on long-term measures needed to allow the standard to adapt over time:

- i) **building a monitoring framework for assessing whether risks – such as privacy infringements, discrimination or fraud – have manifested** either in the financial sector or other sectors that use the data, with interventions as appropriate
- ii) **measuring the success of the initiative** and where necessary making further interventions to help deliver on targets. In particular, consider who is benefiting and whether benefits are being spread equitably. This may also involve reviewing and extending standards and specifications, eg to cover payments.

Specific recommendations for the FinTech sector can be found in annex 10. These were developed based on an overall analysis of the FinTech sector, which is included in a complimentary document entitled "Case Study Compilation and Recommendations for the FinTech Sector"

Conclusion

Mexico's newly approved FinTech law, combined with the growing global open banking movement creates perfect conditions of context and timing for the development of a Mexican OBS and broader open banking initiatives.

The OBS would open the way for a number of benefits for the different stakeholder groups:

- Mexican consumers would benefit from more and better choices when it comes to financial services and the financially excluded, including women, would benefit from better solutions to allow them to access the full range of benefits offered by financial institutions
- Banks would have the opportunity to expand their services and reach new markets
- FinTechs and challenger banks would be able to collaborate more seamlessly and grow; and investors would benefit from better options to place their money.

However, as our report finds, the development, implementation and adoption of an OBS has its challenges and considerations that need to be taken into account. Successful implementation will require reducing friction in digital payment services, upgrading banking infrastructure, addressing fraud, adopting common technical standards and engaging with a wide range of stakeholders among other measures, to ensure sustainability.

To capitalise on this opportunity, this report suggests an actionable roadmap to ensure the country has developed an OBS by November 2018, in time for the change of administration.

There is no better time than now for Mexico to revolutionise its financial services ecosystem. Mexico has a unique opportunity to join the global open banking pioneers and lead the way in optimising it for financial inclusion.

Be part of the conversation by telling us your comments and thoughts on the report via the hashtag #BancaAbiertaMX on Twitter. You can also email us at claudia@cminds.co.

Glossary

ABS - Association of Banks in Singapore

AML- Anti-money laundering regulations

API - Application programming interface

CEDN - National Digital Office in Mexico

CMA - Competitions and Markets Authority in the UK

CNBV - National Banking and Securities Commission in Mexico

COFECE - Federal Economic Competition Commission

CURP - Unique population registry code

EPSP - Electronic payment service provider

FCA - Financial Conduct Authority

GDPR - General Data Protection Regulation

INE - National Electoral Institute

KYC - Know Your Customer Process

OBIE - Open Banking Implementation Entity

OBS - Open Banking Standard

OBWG - Open Banking Working Group

OECD - Organisation for Economic Co-operation and Development

PSD2 - Revised Payment Service Directive

PSP - Payment Service Provider

SHCP - Ministry of Finance and Public Credit

SME - Small and Medium Enterprise

TPP - Third-Party Provider

Annexes

Annex 1: Research methodology

The production of this report was led by the partners C Minds, the Open Data Institute and the FinTech Hub. It was commissioned by the British Embassy in Mexico and funded by the Prosperity Fund.

This report is the result of six weeks of international and Mexico-based research and consultation between January and March 2018. It aims to provide a basis and recommendations for the implementation of an open banking initiative in Mexico. Given the restricted scope of the research, we do not claim to represent the views of the wider population. Rather we aimed to provide an overview of trends and opinions within the financial ecosystem.

The partners conducted desk research to assess the international landscape of open banking and existing best practice, consulting documents including the UK OBS, consumer research and calls for evidence and legislation from a number of governments. Partners also spoke with members of the OBIE, which is implementing open banking in the UK.

Desk research was supplemented with 23 semi-structured interviews with 30 high-level stakeholders across the ecosystem in Mexico in January and February 2018. Interviews were conducted with FinTechs, banks, capital funds and investors, law firms, a business accelerator and an association to gain an industry perspective of banking in Mexico. We sought to gain the industry perspective of an OBS and the opportunities and challenges they perceived in the Mexican financial sector. This was supplemented by three surveys conducted in Mexico City in February 2018: with a group of 57 government regulators; a group of 22 participants that included, among others, sector leaders from banks, FinTechs and financial consultancies; and a group of more than 50 people at an event held at the British Embassy in Mexico. This consultation process covered around 130 people to understand attitudes towards actors in the financial sector and scope opportunities for an OBS in Mexico.

Moving forward, the partners recommend two immediate next steps:

- 1) opening up this document to allow for the participation of key actors in the ecosystem as a way to strengthen the analysis and recommendations
- 2) moving beyond research and focusing on bringing the ecosystem together to discuss the best way to implement an open banking standard in Mexico, taking into consideration different themes mentioned in this report, such as impact on gender equality, a point that was limited in terms of the depth of analysis because of a lack of available information

Annex 2: Complementary services and policies to address financial and digital inclusion

As financial behaviour and technologies change, policymakers need to find new ways of understanding and advancing financial inclusion. This means looking to complementary technology and policies alongside open banking that are helping millions access financial services globally. Approaches such as mobile banking provide alternative channels and support structures for people who do not use traditional financial services. National governments are also using policy levers such as targeted investment, challenges and regulatory frameworks to encourage appropriate services to emerge. By making it easier to access data, and eventually to support payments and other transactions, an OBS can make it easier for organisations to build services such as these.

Mobile financial services and electronic wallets

Mobile financial services enable people to use mobile phones to perform money transfers, payments, deposits and other financial services, sometimes in connection with a bank account. Mobile phones can [also be a channel](#)⁹⁷ for e-wallet services, where cash value is stored on a prepaid card, phone or other electronic device. Basic (non-smartphone) mobile phone owners can still check their balance, transfer funds and view statements using a variety of Unstructured Supplementary Service Data (USSD) and SMS services.

Products such as [PayMe](#)⁹⁸ in Mexico, [M-Shwari](#)⁹⁹ and [M-Pesa](#)¹⁰⁰ in Kenya and [M-Pawa](#)¹⁰¹ in Tanzania have enabled mobile money transfers and provided micro-loans informed by mobile phone usage data to those who are unbanked .

The ability to access deposit and loan products with low fees through mobile has appealed to rural populations in Tanzania, where [a study](#)¹⁰² found that the majority of loans were used by farmers for business investments, as they often lack access to formal loans. By 2017, more than 50% of Tanzanians were financially included, [mainly through mobile money](#) (53%)¹⁰³. Mobile banking is contributing to promoting and sustaining economic growth in Tanzania through helping previously excluded entrepreneurs- including women and youth – and small businesses – to mobilise savings and access micro-loans for productive investments¹⁰⁴.

Globally, mobile money services have provided a gateway for financial inclusion in the unbanked demographic that could evolve into a [US\\$3 trillion in payments volume opportunity](#)¹⁰⁵ and the opportunity to access new markets. And, for governments, the opportunity to stimulate economic growth through increased access to credit for entrepreneurs and businesses.

Agent banking

Agent banking is a partnership between a licensed financial institution and organisations such as community groups, retail outlets and post offices to provide face-to-face financial services. Consumers give these trusted organisations access to manage their bank accounts, in places where the bank does not have a branch. In Malaysia, where 92% of the

⁹⁷ The World Bank (2009), 'E-Money – Mobile Money – Mobile Banking – What's the Difference?', <http://blogs.worldbank.org/psd/e-money-mobile-money-mobile-banking-what-s-the-difference>

⁹⁸ PayMe (2015), <https://payme.mx/web/>

⁹⁹ CBA Bank (2013), 'M-Shwari', <http://cbagroup.com/m-shwari/>

¹⁰⁰ mPesa (2014), <https://www.mpesa.in/portal/>

¹⁰¹ Vodacom, 'mPawa', <https://vodacom.co.tz/en/mpawa/>

¹⁰² CGAP (2015), 'M-Pawa 1 year on: Mobile banking perceptions, use in Tanzania', <http://www.cgap.org/blog/m-pawa-1-year-mobile-banking-perceptions-use-tanzania>

¹⁰³ InterMedia (2018), 'Financial inclusion insights: Tanzania overview', <http://finclusion.org/country/africa/tanzania.html#overview>

¹⁰⁴ World Bank Group (2017), 'Tanzania economic update: Money within reach - extending financial inclusion in Tanzania', <http://www.worldbank.org/en/country/tanzania/publication/for-tanzania-bringing-even-more-money-within-everyones-reach-is-key>

¹⁰⁵ PWC (2017), 'Global FinTech Report 2017',

<https://www.pwc.com/gx/en/industries/financial-services/assets/pwc-global-fintech-report-2017.pdf>

population have active deposit accounts, agent banking has [helped reach remote communities](#)¹⁰⁶: the number of sub-districts served increased from 46% in 2011 to 97.4% in 2016, representing 100.2 million transactions worth more than US\$2.1 billion.

As well as bringing benefits to consumers, financial institutions have benefited from a more cost-effective way to reach people, while agent banks can increase their revenue by earning commission or attracting more customers to their other activities.

Remote terminals

In the UK, [PayPoint](#)¹⁰⁷ provides terminals situated in local shops (such as newsagents) that enable customers to make cash payments for utilities, mobile phone bills and public transport. Customers identify themselves with a bill, card or key issued by a service provider before making payments to the retailer or local shop with cash or debit/credit cards, with all additional costs covered by their service provider. PayPoint [states](#)¹⁰⁸ that this service has served those operating in the cash economy, enabling more than 320 million payments across the UK.

Agent banking via convenience stores such as [Oxxo](#)¹⁰⁹, the largest Mexican chain of convenience stores, has been key in accelerating financial inclusion in Mexico. With [16,000 stores](#)¹¹⁰ across the country, the chain has now become the country's largest correspondent bank, offering services for the seven biggest banks in Mexico's financial system. The company claims that, each month, Oxxo enables [8 million transactions](#)¹¹¹ across the country. It is estimated that [75% of all Mexican card holders](#)¹¹² are with a bank covered by Oxxo services. Through the numerous agreements Oxxo has with banks and firms, it also acts as a remote terminal, enabling customers to make cash deposits, pay credit card bills, pay utility bills (eg electricity, gas and water) and insurance as well as send and receive remittances.

Oxxo also offers a debit card called *saldazo*, aimed at the 75% of Mexican adults who do not have a formal savings account. It can be acquired for a nominal fee (30 MXN or £1.15), by presenting one's electoral identification document and by providing basic information. It is estimated that the *saldazo* [service is being used by more than 2 million people](#)¹¹³.

¹⁰⁶ World Bank Group (2017), 'Financial inclusion in Malaysia: Distilling lessons for other countries', <http://documents.worldbank.org/curated/en/703901495196244578/pdf/115155-WP-PUBLIC-GFM08-68p-Flpaperwebversion.pdf>

¹⁰⁷ Paypoint, <https://paypoint.com/en-gb>

¹⁰⁸ UK Parliament Select Committee on Treasury (2006), 'Memorandum submitted by Paypoint', <https://publications.parliament.uk/pa/cm200506/cmselect/cmtreasy/848/848we83.htm>

¹⁰⁹ Oxxo, <https://www.oxxo.com/>

¹¹⁰ Dinero en Imagen (2017), '¿Cuántas tiendas Oxxo hay en México?', <http://www.dineroenimagen.com/2017-10-30/92472>

¹¹¹ El Financiero (2016), 'Oxxo, la red más grande de sucursals bancarias', <http://www.elfinanciero.com.mx/economia/oxxo-la-red-mas-grande-de-sucursales-bancarias.html>

¹¹² Expansión (2016), 'OXXO, EL MAYOR CORRESPONSAL BANCARIO DEL PAÍS', <https://expansion.mx/empresas/2016/09/26/oxxo-el-corresponsal-bancario-del-g-7>

¹¹³ FEMSA (2015), 'Promueve OXXO la inclusión financiera a más de 2 millones de personas', <http://www.femsa.com/es/medios/promueve-oxxo-la-inclusion-financiera-mas-de-2-millones-de-personas/>

New Shared Network (Red Compartida)

Many people are excluded from financial services offered because of digital inequality, measured in terms of connectivity. In Mexico¹¹⁴, 5% of the population are not covered by mobile broadband, while 61% are covered but do not subscribe due to a range of factors including lack of locally relevant content, affordability and digital and literacy gaps.

To tackle some of these challenges and introduce more competition into the marketplace, the '[New Shared Network](#)¹¹⁵', the most ambitious telecommunications project in the history of Mexico, will kick off on 31 March 2018.

This New Shared Network is planned to cover 50% of Mexican population by 2020 and it is projected to reach 92.2% in seven years. The network will allow Mobile Virtual Operators (MVOs) to take 4G connectivity across the country, and to remote places where there are currently no telecommunication services. The goal is to cover most rural areas, introduce new uses of broadband and reduce the costs of providing services to consumers.

This project could help increase access to the new financial services and products enabled by the OBS for the population in isolated areas.

Google Station

As of mid-March 2018, Mexico became the first Latin American country, and fourth worldwide, to benefit from the services of Google Station. [Google is working with internet provider Sitwifí](#) to convert its existing hotspots to Google Station, defined by Google as a “high-speed public Wi-Fi platform that gives partners an easy set of tools to roll out Wi-Fi hotspots in public places”. At the date of publication, these services were available in over 60 locations across Mexico, a number that Google plans to increase to over 100 by the end of the year.

This project aims at [benefiting the 57 million Mexicans](#) who currently have limited or no internet access.

¹¹⁴ Secretaría de Comunicaciones y Transportes (2015), 'Red Compartida', <http://www.sct.gob.mx/red-compartida/index-eng.html>

¹¹⁵ Secretaría de Comunicaciones y Transportes (2015), 'Red Compartida', <http://www.sct.gob.mx/red-compartida/index-eng.html>

Annex 3: Complementary considerations to unleash the OBS' full potential

Via our interviews we identified considerations that should be taken into account in parallel to the implementation of an open banking initiative. We have listed the main ones below:

Reducing friction in digital payment services

Those who work with payment services argue that at every stage of the digital payment services value chain, there are gaps in the visibility of information and in protocols surrounding the sharing of information. Furthermore, inter-bank switches and compensation rules created by banks are inconsistent and slow. The desire among FinTechs is for the OBS to combine faster payments with the whole banking system, allowing account data and information about accounts to move across that same network.



'The majority of the barriers we have faced have been due to poor infrastructure in Mexican banks and also the segmentation of stakeholders. We work with two verticals: payments and loans. One critical limit in the Mexican market is the topic of data. Because there is no open banking standard one cannot verify a card. There is [also] no AVS. One of the things that an open API will help with is to confirm this type of data at the time of purchase.'

- Víctor Rico, Founder, Bayonet

We therefore recommend that a future open banking initiative in Mexico explicitly addresses payment services, learning from the experience of PSD2 in Europe, but adapted to local conditions.

Modernising the Credit Bureau

For a more successful OBS, the future of Mexican banking also needs to consider modernisation of the Credit Bureau. A recent [report](#)¹¹⁶ by the CNBV found that many of the barriers to financial inclusion are caused by problems with the Credit Bureau, and many of those whom we interviewed stated that credit scoring in Mexico has not kept pace with innovation in the financial sector. The reliance on an informal economy compounds these issues as Mexicans largely depend on cash transactions, limiting the data that traditional credit bureaus can use to determine creditworthiness. For their part, banks have little to no incentive to lend to ‘risky’ populations.



‘Those who are not banked do not have financial data. At the end there is a vicious cycle; as you do not have data, you do not have access and as you do not have access, you do not generate data... then you stay in an infinite loop.’

- Jorge Camús, Founder, Destácame

Companies such as [Kubo Financiero](#)¹¹⁷ – a peer-to-peer lending platform that issues loans ranging from ~US\$200 to US\$25K repayable over a variety of time periods – has a business model that requires constant interaction with both the Credit Bureau and banks. An OBS in Mexico will benefit companies like these as they seek to continue to reach more consumers, particularly the financially excluded.

Bridging the digital and financial literacy divide

With almost 60% of Mexican citizens unbanked, a significant digital and financial literacy divide has to be addressed.

Open banking could help the sector meet the needs of those underserved by traditional banking institutions. Including financial inclusion and gender equality as an explicit goal and factoring these into the design of the initiative will be essential to help ensure the benefits are shared equitably across Mexico.

Policymakers should also act on wider measures needed to address financial and digital inclusion, including supporting and amplifying those who are already supporting financial inclusion and financial literacy through joint initiatives. This involves involving the financially excluded by working with trusted third parties, such as community groups and local businesses that may sit outside the financial sector. In the UK, organisations such as [Finance Innovation Lab](#)¹¹⁸ are based in communities and support entrepreneurs, or [fellows](#)

¹¹⁶ CNBV (2013), ‘Reporte de inclusión financiera’, <http://www.cnbv.gob.mx/Inclusi%C3%B3n/Documents/Reportes%20de%20IF/Reporte%20de%20Inclusi%C3%B3n%20Financiera%205.pdf>

¹¹⁷ Kubo Financiero, <https://www.kubofinanciero.com/>

¹¹⁸ The Finance Innovation Lab, <http://financeinnovationlab.org/>

¹¹⁹, to build sustainable organisations that co-design services to meet those communities' needs.

Mexico's leadership in this area could lead to the development of a regional or international focus on addressing financial inclusion, using the tools of open banking and complementary policies such as agent and mobile banking.



'We have to bring financial services to areas where they do not have access to any. This can be done working with carriers and offering services through USSD or SMS, not only smartphones. To make this work, we would have to standardise processes and regulations across carriers.'

- Gueorgui Popov, Director General, FIMPE

Annex 4: Mexico's FinTech law and affected regulations

The "***Ley para Regular las Instituciones de Tecnología Financiera***", known as the FinTech Law, was passed unanimously in Mexico's upper legislative chamber (the Senate) on Tuesday, 5 December 2017. The draft bill was opened to comments from a working group comprising financial services and banks, then passed by the Senate, then moved to the lower chamber (Deputies) for a vote. The congressional winter recess forced the lower chamber vote to be shelved until the new year. It was then passed on 1 March 2018.

The purpose of the law is to formally regulate the [burgeoning FinTech sector in Mexico¹²⁰](#). The FinTech law formally regulates several widely used concepts in the industry, such as cryptocurrency, crowdfunding, regulatory sandboxes and APIs. The law mainly focuses on three areas: crowdfunding institutions, electronic payment institutions and virtual asset management institutions. It also proposes changes to existing regulations relating to FTIs also known as FinTechs.

The draft law provides for a regulatory sandbox where companies can test their business models with access to data and relevant tools. FinTechs must obtain a temporary authorisation (of no more than two years), during which time they can provide their services to a reduced number of clients.

¹¹⁹ The Finance Innovation Lab, 'Financial Health Fellowship', <http://financeinnovationlab.org/fellowship/>

¹²⁰ Entrepreneur (2017), 'México se convertirá en el hub de fintech en América Latina', <https://www.entrepreneur.com/article/306044>

The law also provides for the creation of a FinTech council, to act as a means of consultation, advice and coordination. The council's purpose is to create a space for exchanging opinions, ideas and knowledge between the public and private sectors, in order to learn about the innovations in the field of financial technology and plan their development and regulation. The council will be composed of individuals from the public and private sectors.

Providing the draft provisions are enacted without any amendments, as proposed, existing FinTech companies will have six months from the date the law comes into force to request authorisation from the CNBV and the FinTech Committee (CNBV, Bank of Mexico and SHCP) to continue operating. In the meantime, they will need to disclose to the public that the FinTech activities they perform are pending authorisation from the CNBV, and are not supervised. By establishing the basis for regulation and development of the FinTech industry, Mexican regulators are looking to give legal certainty to industry participants.

Finally, the law seeks to provide financial stability by providing prudential rules in financial risk, operational, technological, marketing, corporate governance and accounting rules, as well as establishing limitations and maximum amounts for transactions.

List of relevant laws affected

The preamble to the FinTech law states: 'Various provisions are amended, added and repealed.' Those laws expressly mentioned in the FinTech law are the following:

- The Law on Credit Institutions
- The Securities Market Law
- The General Law of Organisations and Auxiliary Activities of Credit
- The Law for Transparency and Ordering of Financial Services
- The Law to Regulate Credit Information Companies
- the Law of Protection and Defence of Users of Financial Services
- The Law to Regulate Financial Groups
- The Law of Advanced Electronic Signature
- The Law of the National Banking and Securities Commission
- The Federal Law for the Prevention and Identification of Operations with Resources of Illegal Origin and the General Law of Credit Securities and Operations

Annex 5: The European Union's Revised Payment Services Directive (PSD2)

The European Parliament adopted the revised payment services directive (PSD2) to make it easier, faster, and less expensive for consumers to pay for goods and services, by promoting innovation (especially by third-party providers)¹²¹. Similarly to the Mexican FinTech law, PSD2 acknowledges the rise of payment-related FinTechs and aims to create a level playing field for all payment service providers while ensuring enhanced security and strong customer protection. PSD2 requires all payment account providers across the EU to provide third-party access. While this does not require an open standard, PSD2 does provide the legal framework within which the CMA requirements in the UK and future efforts at creating other national OBSs in Europe will have to operate.

PSD2 goes further than the CMA Open Banking Scope¹²². It applies to all payment accounts, not just current accounts. From a bank's perspective, PSD2 is not only a regulatory compliance and technology challenge, but also a strategic and operational one. Meeting these challenges will require a clear strategy as well as operational and infrastructural changes. Even though the professed focus of PSD2 is on payments and access to accounts, its ramifications extend far beyond that limited area.

In addition to using open APIs to achieve compliance, Europe's banks and third-party providers will be able to use them far more strategically. They could, for example, add third-party capabilities to their core business offerings via APIs, thereby creating and testing new models and concepts faster and driving down their cost of innovation. They could bolster their cross-selling efforts and extend their reach into new markets by providing their APIs to third parties. They could also use consumer behavior and preference data that accrue from these activities to develop the insights needed to create new consumer products and services.

In a post-PSD2 environment, the primary responsibility for security risks will lie with payment service providers. Vulnerability to data security breaches may increase in line with the number of partners interacting via the APIs.

The new EU GDPR requires protecting customer data privacy as well as capturing and evidencing customer consent, with potentially steep penalties for breaches. Payment service providers must therefore ensure that comprehensive security measures are in place to protect the confidentiality and integrity of customers' security credentials, assets and data.

¹²¹UK Finance (2018), 'Open Banking and PSD2: the lowdown', <https://www.ukfinance.org.uk/open-banking-and-psd2-the-lowdown/>

¹²² Competition and Markets Authority (2016), 'Making banks work harder for you', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/544942/overview-of-the-banking-retail-market.pdf

Annex 6: The UK Open Banking Working Group and Implementation Entity

The creation and implementation of the UK's Open Banking Standard has been overseen by two bodies: the Open Banking Working Group (OBWG) and the Open Banking Implementation Entity (OBIE).

The Open Banking Working Group

The OBWG was a collective of banking, open data and FinTech professionals, and wider businesses and consumer groups, that was formed at the request of the UK government. Its role was to develop a framework for adopting an open API standard in the UK banking sector; this was set out in the OBS report, which was delivered to the government on 30 December 2015 and published into the public domain in 2016.

According to its [Terms of Reference](#)¹²³, the OBWG was created to 'deliver a framework for the design of an open API standard in UK banking focusing on personal and business current accounts', as well as evaluating how open data use in banking could benefit consumers, businesses and society. The members of the OBWG were appointed to act 'as a representative of their industry', rather than of their particular organisation or body. As well as members from the groups listed above, the UK government – represented by the Treasury – also sat on the steering committee, and endorsed and instructed the committee's co-chairs.

The steering committee was led by two co-chairs – from the Open Data Institute and Barclays – and included members from HSBC, EY, Digital Catapult, Nationwide, Coodec, OpenCorporates and the Financial Data and Technology Association, among others. The working group also had a number of sub-groups that considered key aspects of the creation of the OBS, including:

- **A user reference group** to consider the needs of consumers, businesses and developers
- **A regulation and legal group** to consider the regulatory and legal framework within which the OBS would operate
- **A governance group** to consider the governance of the open API standards
- **A data group** to determine the scope of data to be included in the open API and open data standards
- **A security and authentication group** looking at the security authentications and requirements for the API
- **A standards and technical design group** to map out the development process for the open API standard, particularly focusing on technical and architectural design

¹²³ Open Banking Working Group Mexico (2015), Open Banking Working Group (OBWG) Terms of Reference
https://www.scribd.com/document/283802327/Open-Banking-Working-Group-OBWG-Terms-of-Reference#fullscreen&from_embed

The initial scope of work included: defining the scope of data to be covered by the open API standard and open data; defining who would be responsible for ensuring compliance with the standard; and the security framework and governance of standard implementation. It did this over the course of a year, delivering the OBS report to the government at the end of 2015. It was published in January 2016.

The Open Banking Implementation Entity

Following the publication of the OBS report, the Open Banking Implementation Entity (OBIE) was established by the Competition and Markets Authority (CMA) to oversee the implementation of the OBS. It is funded by the nine biggest retail banks and building societies in the UK – the organisations that are initially required to implement the OBS standard.

The Implementation Entity Steering Group first met in [July 2016](#)¹²⁴ to oversee the creation of the OBIE, including its composition, governance, funding and initial project plan. The group is formed of one representative from each of the nine banks implementing the standard, as well as five representatives convening the advisory groups, two customer representatives, and four observers from the Treasury, Payment Systems Regulator, Financial Conduct Authority and Information Commissioner's Office. The OBIE was formally established by the CMA in September 2016. An advisory group [has also been established](#)¹²⁵ to 'provide a forum for debate and discussion to inform both the development and implementation of the standards', comprising expert participants and ensuring the OBIE's implementation is in line with best practice.

Phase 1 of the work involved laying out the governance process and funding of the OBIE (£2 million from the nine banks, portioned by market share) and searching for an implementation trustee to chair the group (Imran Gulamhuseinwala as of April 2017).

In Phase 2, the steering group provided governance and oversight to the implementation of the open banking programme.

A [draft structure can be found here](#)¹²⁶. The OBIE has three levels of governance: working groups that engage in day-to-day decision making to complete workstream deliverables, the programme management group, which is responsible for delivering remedies to time and scope; and the steering group, which maintains responsibility for making decisions with full authority from the CMA.

¹²⁴ Open Banking (2016), 'NOTE OF THE IMPLEMENTATION ENTITY STEERING GROUP MEETING – 7 JULY 2016', <https://www.openbanking.org.uk/wpcore/wp-content/uploads/2017/12/IESG-Minutes-7-July-2016.pdf>

¹²⁵ Payments UK (2016), 'Implementation Entity Advisory Group ToR', <https://www.paymentsuk.org.uk/sites/default/files/Implementation%20Entity%20Advisory%20Group%20ToR%20version%204%200%2029072016.pdf>

¹²⁶ Payments UK, 'Implementation Entity Structure', <https://www.paymentsuk.org.uk/sites/default/files/CMA%20Implementation%20Entity%20Structure%20draft%20v2.pdf>

During the implementation of the OBS, the [OBIE is mandating security standards to monitor and prevent fraud](#)¹²⁷, as well as providing consumer consent for all transactions¹²⁸. As part of its remit, the OBIE will be required to create a permanent body that governs the solution in the future.

In November 2017, the government announced that the OBIE will also create standards for the payment account types set out in PSD2, which includes credit cards, e-wallets and prepaid cards, as well as enhancements mandated by the CMA. The [full list of proposed amendments can be found here](#)¹²⁹. This will extend the work of the OBIE into 2018 and 2019.

Annex 7: API specifications for UK open banking

As part of the implementation of open banking, the OBIE has provided guidance on API specifications, both for open data APIs about products and services, and for APIs that allow approved third parties to access data and build their products and services.

Open data APIs

Open data API specifications are provided to allow providers to supply up-to-date, standardised information about the latest available products and services, improving access to data that allows third parties to provide better services for customers.

The different [specifications for each account type under the open banking framework in the UK \(covering personal and business current accounts, commercial credit cards, etc\) can be found here](#)¹³⁰.

Although the APIs are hosted by each individual financial institution, they can be accessed through an [API dashboard](#)¹³¹, which provides links to all available endpoints for open data.

It is mandatory for providers to enrol with the OBIE, while enrolment is optional for users of the open data API who wish to receive support.

Read/Write APIs

¹²⁷ Open Banking Implementation Entity (2018), 'Counter fraud and the open banking ecosystem', <https://www.openbanking.org.uk/wpcore/wp-content/uploads/2018/01/Counter-fraud-and-the-Open-Banking-Ecosystem.pdf>

¹²⁸ Open Banking (2017), 'Open Banking Consent Model Guidelines', <https://www.openbanking.org.uk/wpcore/wp-content/uploads/2017/11/Consent-Model-Guidelines-Part-1-Implementation-Oct-2017.pdf>

¹²⁹ Open Banking (2017), 'FAO CMA: Proposed amendments to the Agreed Arrangements', https://www.openbanking.org.uk/wpcore/wp-content/uploads/2017/11/FAO-CMA_Proposed-Amendments-to-Agreed-Arrangements_v_final-1.pdf

¹³⁰ Open Banking Atlassian (2018), 'Open Data API Specifications', <https://openbanking.atlassian.net/wiki/spaces/DZ/pages/16320694/Open+Data+API+Specifications>

¹³¹ Open Banking Atlassian (2018), 'Open API Dashboard', <https://openbanking.atlassian.net/wiki/spaces/DZ/pages/54919225/Open+Data+API+Dashboard>

The [Read/Write API specifications](#)¹³² were provided to allow ‘account servicing payment service providers’ (such as banks and building societies) to develop APIs to an agreed standard, which can be accessed by third-party providers. The specifications are provided publicly so developers can access and develop applications around them. However, ‘use of these in a production environment’ is limited to those who have been approved by the FCA and enrolled with the OBIE (through the [Open Banking Directory](#)¹³³), to maintain the appropriate level of security.

Actors involved in using APIs

The OBS defines ‘third-party providers’ (TPPs) as organisations that use APIs to access customer accounts to provide account information services and/or initiate payments. They must meet the [requirements](#)¹³⁴ to be listed in the Open Banking Directory, which lists all approved TPPs, as well as meet OBIE [guidelines](#) of using read/write APIs. TPPs can include organisations from overseas that are authorised [by the Financial Conduct Authority](#)¹³⁵.

In the UK, all the CMA9 banks are registered as third parties, specifically account information service providers, which enables them to be consumers as well as providers of open APIs.

Annex 8: The FCA regulatory sandbox in the UK

The UK’s Financial Conduct Authority (FCA), which regulates conduct in financial services in the UK, launched a [regulatory sandbox](#)¹³⁶ in June 2016 to allow businesses to test their products in a controlled market with real consumers. The sandbox is open to both authorised firms and unauthorised firms seeking authorisation.

The aim behind the sandbox is to encourage businesses with innovations that may benefit consumers to test their products and identify appropriate safeguards for consumers in a controlled environment. They are tested on a small scale with a limited number of consumers, using a ‘customised regulatory environment for each test’. The sandbox is run in cohorts; at the time of writing in March 2018, the FCA had supported 60 firms to test their innovations, with 90% of their first cohort ‘progressing towards a wider market launch’ and 40% of the first cohort receiving investment during or after their sandbox test.

During the sandbox phase, the FCA works closely with firms in the cohort to provide guidance, as well as offering a number of tools that help firms meet the FCA’s

¹³² Open Banking (2018), ‘Read / Write API Specs’, <https://www.openbanking.org.uk/read-write-apis/>

¹³³ Open Banking (2018), ‘Open Banking Directory’, <https://www.openbanking.org.uk/directory/>

¹³⁴ Open Banking Developer Zone (2017), ‘The Open Banking Directory - v1.1.1-rc1’, <https://openbanking.atlassian.net/wiki/spaces/DZ/pages/28737919/The+Open+Banking+Directory+-+v1.1.1-rc1#TheOpenBankingDirectory-v1.1.1-rc1-VersionControl>

¹³⁵ Autoridad de Conducta Financiera (2018), ‘How to apply for authorisation’, <https://www.fca.org.uk/firms/authorisation/how-to-apply>

¹³⁶ Autoridad de Conducta Financiera (2018), ‘Regulatory sandbox’, <https://www.fca.org.uk/firms/regulatory-sandbox>

requirements, such as providing waivers or modifications to their rules, ‘no enforcement action’ letters and informal steers. They are not able to waive national or international laws.

The [benefits of the UK’s regulatory sandbox](#)¹³⁷ have included: reducing the time and cost of bringing innovations to market; facilitating greater investment for innovative ideas; enabling the inclusion of consumer safeguards in new products and services; and including an ‘exit plan’ that protects consumers in the event of the test being closed early. It has also enabled FinTechs addressing financial inclusion to test their ideas, including tests around enabling consumers on benefits to more easily pay their rent, council tax and utility bills, and encouraging behavioural changes to save more.

Reported hurdles exposed during sandbox testing include the practice of wholesale de-risking by some banks, acquiring customers (for new entrants), accessing consumer data and integration with nascent APIs, and meeting the conditions for FCA authorisation, eg to underwrite insurance products.

In March 2017, [the House of Lords Select Committee on Financial Inclusion stated that it supported the work of the FCA sandbox](#)¹³⁸ as part of innovation to ‘meet the specific needs of consumers’, and hoped the sandbox ‘could be used to prioritise products that will help to meet the needs of those vulnerable customers who are at particular risk of financial exclusion’.

The FCA has also [expressed interest](#)¹³⁹ in hearing from parties on the viability of a ‘global sandbox’ that would allow firms to test in different jurisdictions at the same time, with regulators working together to ‘identify and solve common cross-border regulatory problems’. The body has stated that it will respond to feedback with a statement in March 2018.

Annex 9: Proposal for the Mexican Open Banking Working Group

1) Role

The objectives of the OBWG are to:

¹³⁷ Autoridad de Conducta Financiera (2017), ‘Regulatory sandbox lessons learned report’, <https://www.fca.org.uk/publication/research-and-data/regulatory-sandbox-lessons-learned-report.pdf>

¹³⁸ Parlamento del Reino Unido (2017), ‘Chapter 6: Access to Financial Services’, https://publications.parliament.uk/pa/ld201617/ldselect/ldfinexcl/132/13210.htm#_idTextAnchor074

¹³⁹ Autoridad de Conducta Financiera (2018), ‘Global sandbox’, <https://www.fca.org.uk/firms/regulatory-sandbox/global-sandbox>

- i) develop a working framework for the creation of the Open Banking Data Standard for Mexico, with a particular focus on open financial data, aggregate data and transactional data
- ii) evaluate how opening up financial data can benefit consumers, businesses and society
- iii) publish relevant recommendations for the design, development and maintenance, and security mechanisms for the APIs
- iv) propose a timescale and roadmap for achieving objectives

The recommendations will:

- i) define the terminology and the areas of research
- ii) define relevant aspects for consumer trust and usability, data security, responsibilities and open API governance
- iii) communicate the required policies regarding business, the law and techniques to develop protocols and governance regarding APIs
- iv) serve as a guide for the establishment of compensation that does not constitute formal, regulatory, economic or practical entry barriers
- v) consider the impact of international regulations such as PSD2, OBSs from the UK, Australia, Singapore, etc, for the better use of the Open Banking Data Standard for Mexico

The OBWG's work will be as transparent and open as possible and will bring diverse point of views from a wide range of participants.

2) Structure

- i) The members of the OBWG will act on behalf of their industry and not as representatives of a specific company.
- ii) The OBWG will be formed by experts representing impacted sectors (public and private) with the main aim of ensuring the framework is designed effectively and for the greater good. Consumer representatives will be included, as well as economic competence bodies. Additionally, it will include experts in the design of technical standards and parameters to ensure they are suitable for use by multiple parties. The member associations are included in Annex 6 as 'OBWG members'.
- iii) As part of its role, the OBWG will act as a secretariat. This function will be exercised by the FinTech Hub in collaboration with C Minds. The secretariat will have a group of expert advisers who will not directly be part of the working group.
- iv) The secretariat will determine the relevant lines of work and each member will be responsible for consulting their associations and will present an official standpoint; if necessary, the secretariat will recommend a sub-group meeting of member representatives to address each matter and in particular to open a focused dialogue. A representative would be able to attend these specialist meetings, and this should be a different person to the representative sitting on the OBWG

3) OBWG reach

- i) Define the data that will be covered in the Open Banking Data Standard and in the APIs
- ii) Define the reach of the API standard, especially technical standards and protocols to facilitate the access and sharing of relevant information
- iii) Define who will be responsible ensuring compliance with the different parameters of the APIs
- iv) Define the data access rules, aligning them to the data protection rules and other regulatory obligations
- v) Define the data security parameters for data liberation, licences and usage, especially the veto processes and procedures for third parties*
- vi) Determine the operative governance framework and procedures for change management
- vii) Shape education mechanisms for consumers, companies and society

4) Work guidelines

The secretariat will guide the creation of the reference framework through various lines of work. Each member of the OBWG will be responsible for the internal discussion within its group in order to reach an official standpoint. If required by the secretariat, specialist meetings can be carried out by the members and sub-working groups can be created.

The lines of work could evolve, be created or dissolved as required.

- a) User groups
 - i) Manage groups of end users (consumers, businesses, developers) to assure that interests are aligned with their needs and expectations. Consider the educational needs of the different groups.
- b) Regulatory and legal
 - i) Contribute to the construction of the legal landscape for the present and possible future implications of the API operation. Recommend a specialist body for the resolution of controversies and disputes.
- c) Governance:
 - i) Define the policies for those who are granted access and usage; define responsibilities and preventive and corrective measures for information leaks; consider how users decide and give informed consent for the use of data.
- d) Data
 - i) Define the data that should be included, as well as its standardisation and the roadmap for the development of APIs. It will also include relevant libraries, terminology, formats, etc, to ensure the ease of use and implementation.
- e) Security and authentication

- i) Establish security firewalls, protocols and authentication requirements, including read/write permissions and how real-time authentication will work.
- f) Technical design and standardisation:
 - i) It will focus on the necessary development processes and their requirements for the creation of fully-functional APIs. It will focus on the technical and architectural design for the APIs, taking existing international developments into consideration.

5) Governance

- i) The OBWG will be responsible for reaching agreements regarding the final recommendations, providing a written report.
- ii) In the event that the OBWG does not reach an agreement, the secretariat will produce a report that includes the OBWG's comments and incorporates the recommendations of the expert group (ie consulting firms, digital companies, technology companies, etc)
- iii) Actors:
 - Consortium
 - Technical secretariat
 - Expert group
 - Permanent members
 - Guest members

6) Timeline



Annex 10: Specific Recommendations for the FinTech Sector

The following recommendations seek to increase the opportunities created by the Open Banking Standard (OBS) for Mexico's FinTech ecosystem and to facilitate access to these opportunities. They were made following an intensive analysis of Mexico's financial services ecosystem, which included 30 interviews with leading actors, two workshops with regulators, banks, FinTechs and other financial actors and three surveys to more than 100 people. These recommendations fall under three areas, namely: FinTechs empowerment in the development of the OBS; FinTech innovation; and FinTech capacity to adopt the OBS.

1) FinTech Empowerment in the development of the OBS

To make sure that this sector benefits greatly of the OBS, it will be important to include the sector as a core component in the development of the standard. We recommend:

- **Ensure the representation of the FinTech sector in the Open Banking Working Group (OBWG)** That will have the objective of developing the Open Banking Standard as a recommendation for regulators. Having key representatives of the FinTechs, through representatives of the FinTech Association in Mexico for example, will allow the development of a standard that is based in real needs and opportunities for this sector. Also, FinTechs should participate in the early definitions of objectives, evaluation and metrics system, and implementation times of the OBS. This would potentially ensure the complete appropriation, use and benefit of the OBS by the sector.
- **Collaborate with a wide range of FinTechs and create open consultation processes to understand the capacities and limitations of the sector for the implementation of the OBS.** This will ensure that the OBS development includes appropriate times and mecanismos to attend to these constraints.
- **Create a pilot exercise to understand the challenges and opportunities of the FinTech sector.** Create a pilot of Open APIs among regulators, banks and FinTechs to understand through a hands on experience, the opportunities and challenges this presents to all sectors. This pilot will also allow to understand which are the main data needs for FinTechs and help prioritize the opening of these.
- **Include FinTechs in the revision of the laws and regulations that are complementary to the Open APIs regulation** to ensure that there is harmony between them that allow to potentiate in the least amount of time, the benefits of OBS for this sector and all others. Understanding that other existing regulations could hinder the benefits if they are not revised and strengthened.

2) Encouraging FinTech Innovation

While the OBS itself aims at encouraging innovation, additional incentivising mechanisms should be put in place to ensure quick results and efficient innovation. The recommendations are:

- **Join efforts with organizations that periodically identify tendencies and needs of the industry.** This will allow that FinTechs have access to knowledge to better understand the needs of the different segments of consumers and can create better services and products to attend to these. Examples of such organizations are *ProMexico* and the Ministry of Economy. This, combined with better access to information through the OBS, would give the needed tools for FinTechs to innovate and strengthen their services.
- **Work in collaboration with the office of Open Data of the Mexican Government and local governments to coordinate efforts between the open data policies and the OBS.** This would help ensure the right prioritization of government data opening based on needs of the sector and would enable feedback loops between users and data government providers. This coordination between agendas would strengthen the availability and use of financial data (public and private) in an integral way in Mexico.
- **Promote innovation challenges that foster FinTechs to develop creative solutions based on the use of the OBS.** For example, the United Kingdom (UK) coordinated the [Open Up Challenge](#) that gave prizes to ideas and pilots that had the best use of the data provided through the OBS. This helped accelerate the understanding and adoption of the OBS in UK. Mexico has the right ecosystem and dynamism to implement similar challenges as a tool for education, promotion and data innovation.
- **Systematize and promote FinTech case studies that use the OBS.** This will help promote a broader understanding of the potential and foster an increased use of the OBS.
- **Create a publicity campaign for successful FinTechs that use the OBS to foster better services or products.** This would help them become more visible and grow their customer base.
- **Measure the return in investment in the use of Open APIs.** This will allow to strengthen the case on OBS and measure the direct positive impact in the FinTech sector and in general economic growth.

3) Supporting the FinTech Capacity to Adopt the OBS

The OBS presents considerable benefits for the growth of Mexico's FinTech ecosystem. However, our analysis concluded that, in the current context, these companies may not be fully equipped to achieve their newfound potential under the OBS. Recommendations to ensure the OBS fully detonates the FinTech ecosystem are:

- **Assess the technical capability of the Fintech sector to implement the required changes** by researching current capability (such as mix of organisational sizes and business models, product offerings, geographic spread and workforce skills), capacity needs and existing plans for future growth and product/service development.
- **Strengthen the skills and understanding of the use of government open data** (based on the Open Data Policy) **and the skills relative to the Open APIS** (based on the OBS). This can be done through online courses and programs at a national scale with emphasis on strategic cities. As well as the development and publication of toolkits and legal advice.

- **Strengthen the skills to analyse data and the use of new technologies such as Artificial Intelligence** so FinTechs can take advantage of the radical increase of data they will have through the OBS.
- **Create and connect Mexican FinTechs to a network of international peers** in countries delivering open banking initiatives so they can learn from their experience and understand best practices surrounding the adoption of the OBS.