



INDUSTRY PAPER 1

Rise of BigTech platforms in banking

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Contents

Abstract	3
1. Open Banking: a wave of reinvention?	4
2. First responses from the industry: 'We're all winners but there will be losers'	5
3. Technological takeover? BigTech in banking.	7
4. Conclusion	11



Abstract

The relevance and importance of Open Banking is soaring, with API usage doubling in 2020 in concert with a sharp increase in contactless payments and online banking following the COVID-19 Pandemic. This paper uses interviews with leading industry professionals to build a future-facing picture of the banking sector in light of Open Banking regulations. We find that the rise of the platform business model and the double-edged sword of the new banking regulations provide a window of opportunity for new entrants, but particularly BigTech to play a significant role in the future of banking.



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1. Open Banking: A wave of reinvention?

Banks have long held a privileged position of trust in society, as safeguards of our wealth and most private information. This trust has been built on an expectation of banks as stable institutions, acting prudently and in the consumer's best interest. As such, customers have accepted low rates of innovation, with almost 80% of consumers actively choosing to remain with the largest traditional banks, despite financial incentive and regulatory support to switch.

However, in the wake of the 2008 financial crisis, which stemmed at least partially from banks' decision making, customer preferences have been rapidly shifting, a trend further accelerated recently by the COVID-19 pandemic. In order to get their individual needs met, customers are now more willing to cast a wide net and give a chance to new players in the banking sector. One of the ways that regulation is playing a role in this trend is through the implementation of Open Banking, which aims to empower customers by giving them the ownership of their data and a broadening market access to new entrants. This paper, which is based on a joint research study of the authors using field interviews, provides a deeper look into how Open Banking is changing the competitive landscape in banking and what kinds of new players may particularly benefit from this regulation.

Open Banking has been positioned as the catalyst for reinvention within the banking sector. The specific legislation that the term comes from – 'Open Banking' in the UK (and 'PSD2' in Europe) – is one of a package of policy responses introduced following the Competition and Markets Authority's (CMA) 2016 review of the retail banking market. This review found anticompetitive dynamics in the sector, with 'older and larger banks... not [having] to compete hard enough

for customers' business, and smaller and newer banks [finding] it difficult to grow... [meaning] that many people are paying more than they should and are not benefiting from new services' (CMA, 2016).

Open Banking facilitates competition by mandating incumbent banks to produce open access to valuable current account and other financial data via application programming interfaces (APIs) to trusted third party providers. These TPP's can subsequently provide innovation via trusted account information and payment initiation services (AISP/PISP) on behalf of end customers. The aim of the regulators in implementing Open Banking was to spur competition and innovation by removing the substantial barrier to entry presented by the investment costs and information asymmetries built around banking services. Enabling neo-banks and FinTech organisations to safely access data to innovate could encourage competition without the need for new entrants to make prohibitively high investments and without the need for customers to switch current account providers. Switching banks has been something customers have long shown an unwillingness to do, as evidenced by concentration statistics, which endure despite substantial investment in switching incentives by the regulator and competitors alike.

2. First responses from the industry: 'We're all winners but there will be losers'

In the UK, Open Banking is overseen by the Open Banking Implementation Entity (OBIE), governed by the CMA and funded by the nine largest banks and building societies in the market. The mandate of the OBIE is to design the specifications for the APIs that banks and building societies use to securely provide Open Banking, to manage and oversee the Open Banking ecosystem, produce guidelines and set out the process for managing disputes. Initial roll out was patchy, with all of the major UK banks (bar one) missing the first deadline for the release of APIs.

Reactions to Open Banking from players across the banking industry are framed by relative market position. There's a general acceptance that these new regulations will lead to market disruption but a clear lack of consensus over the winners and losers.

For many actors within the FinTech ecosystem, access to incumbent bank infrastructure, data and customers offers the opportunity to compete, overcoming otherwise insurmountable distribution barriers. For digital-first challenger banks, such as Monzo, Revolut and Starling, Open Banking provides the offer of re-writing the rules in their favour, as they compete head-on with incumbent banks.

For incumbents, on the other hand, Open Banking presents an opportunity and impetus to transform and compete in a digital world. They can leverage their scale to capture innovation from an increasingly large ecosystem to further entrench their position with consumers by becoming the touchpoint for all financial needs. However, despite the grand ambitions and much anticipation, early responses to Open Banking from incumbents underwhelmed on several counts.

In the implementation of Open Banking, much of the early narrative by incumbent banks focused on the details of regulation. As one senior banking consultant put it: 'What I see in the market is everyone reacting similarly, first ensuring they are ready from a regulatory perspective to de-minimis...' In particular, scrutiny was placed on three key areas: Liability and the

dispute mechanism, interplay with the new European legislation, GDPR, and finally, establishment of API standards. Incumbents argued that the initial allocation of liability toward them, as ultimate custodians of customer data, was overly penal. This complaint was made all the more poignant given the timely launch of the European General Data Protection Regulation (GDPR), seeming to clash with Open Banking by seeking to place restrictions on the use and sharing of consumer data.

Similarly, a lack of prescriptive standards or definitions over the technical requirements for bank APIs led to different interpretations across banks, reducing interoperability and enhancing integration complexity for third parties, who would need to build unique integrations for each of the leading banks or rely on specialist 'middleware' providers for the task.

Uncertainty seems to have greatly favoured the incumbent banks, who are better able to control the pace of progress and adoption. A number of industry experts suggested that banks may have intentionally built 'roadblocks' into their APIs to slow the pace of Open Banking. The adoption of high-friction customer authentication journeys that were inferior to the biometric methods used in their core offerings, or the slow release of APIs for testing are ways in which incumbents may have gained time to work on fixing their own legacy challenges and 'cramming' innovative features into their offerings.

On the face of it, this slow, compliance-led response appears at odds with the transformative opportunity lauded by these same firms. One explanation for this has been the significance of underlying challenges faced by incumbents to transform legacy businesses, including the technological barriers to capitalising on open architecture, as well as the entrenched business model and cultural incentives built to serve the traditional ways of working. These challenges are far from new; Clayton Christensen (2013¹) has long warned of the innovator's dilemma and how to overcome it, via

¹ Christensen, C.M., 2013. The innovator's dilemma: when new technologies cause great firms to fail. Harvard Business Review Press.



new autonomous business units. However, of the large incumbents Natwest/RBS were the only leading firm to actually do this via the challenger bank Bo, which was subsequently shut down within six months. It is notable that branding it 'Bo', RBS missed one of the key differentiators it held to capitalise on first-mover advantage – the brand and the large installed customer base.

While initial incumbent responses may have been cautious and defensive, there is also agreement that there are great opportunities associated with Open banking. Platform theory describes how strong reinforcing feedback loops (or 'network effects'²) accruing to dominant platforms can create a winner-takes-all dynamic, where first-mover advantages can be crucial. Such a dynamic was (almost unanimously) deemed to exist for incumbents, where the re-invention of almost all aspects of banking to better serve customer needs and expectations is mobilised by several factors: a vast installed-base of customers, opportunities for significant operational efficiency and

potential access to an ecosystem of innovators. To this end, we have observed that many incumbents have recently started to leverage APIs to offer account aggregation services, killing two birds with one stone: signalling an increasing commitment to innovative banking services while also getting access to data on customers' activity at competitor institutions.

Our interviews show that the perceived threat of BigTech entering the banking sector was an important additional motivation for incumbents to start exploring opportunities within Open Banking rather than taking a defensive approach. We further describe this rising threat from BigTech and how it might change the competitive landscape in banking below.

² Shapiro, C., Carl, S. and Varian, H.R., 1998. Information rules: a strategic guide to the network economy. Harvard Business Press.

3. Technological takeover?

BigTech in banking

In its broader sense, Open Banking regulation is one step toward enabling and regulating a more fundamental disruption of business models in banking. This step facilitates open innovation platforms in banking, which have become increasingly prevalent across industries. BigTech companies, also known as Tech Titans or GAFA(M): Alphabet (Google), Amazon, Facebook, Apple, and sometimes Microsoft are described as companies that 'create technology as well as the people and institutions that embrace, nurture and leverage technological innovation' (techtitans.org) and at the time of writing, were collectively worth \$6.5trn. The market capitalisation of Apple alone overtook the value of the entire FTSE 100 in early September 2020. The successful deployment and defence of platform business models has been key to this success, allowing BigTech firms to capitalise on winner-takes-all dynamics and strong reinforcing feedback loops, helping them become synonymous with entire industries. 'To Google', for example, can be found in the Oxford English Dictionary, demonstrating the entrenchment of this success within the fabric of linguistic development.

BigTech firms have captured dominant market share by leveraging their core offerings as multi-sided platforms for commerce and innovation. For example, Apple's iPhone and operating system provide a gateway to myriad third-party applications that enhance its user appeal, in-turn encouraging more innovation from developers looking to reach the platform audience. Alongside the BigTech giants, firms such as Uber, Netflix and AirBnB have enjoyed similar success by adopting platform business models, enabling them to capitalise on network effects to rapidly reach a tipping point at which they can dominate their markets. Uber's use of this model is illustrated below (originally tweeted by David Sacks, 2014) – as users join the platform they create demand, which increases driver uptake and capacity, improving the service for both sides of the market, creating a strong momentum for growth.

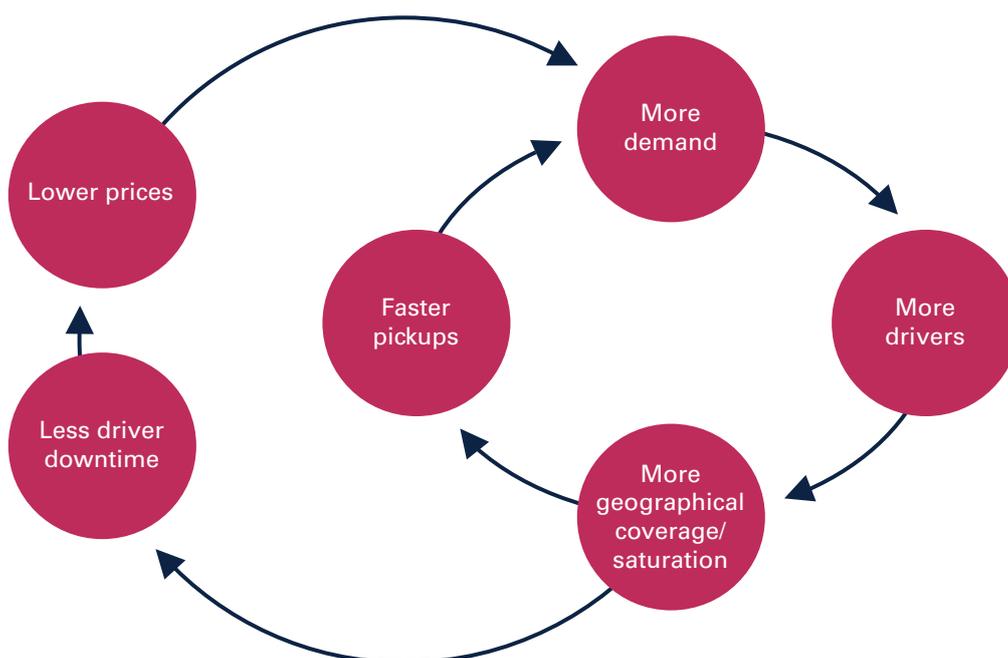
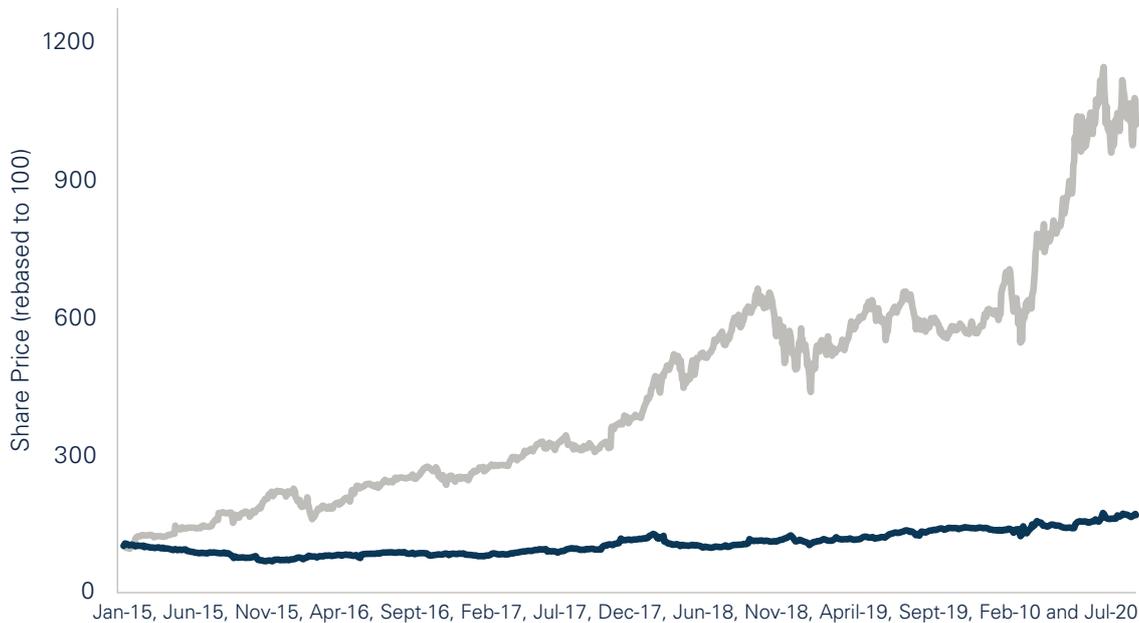


Illustration of Uber Platform Model, adapted from David Sacks tweet, 2014

From Bank as a Platform to Platform as a Bank



Amazon and Walmart indexed share price performance 2015-2020, Bloomberg

As described by Gawer and Cusumano (2002), leading researchers of platform business models, successful platform strategies are those whose architecture encourages the recruitment of a supportive ecosystem. These innovation platforms continually expand their reach and functionality, creating ever-greater lock-in of end users and discouraging the use of competing platforms, so-called multi-homing. This dynamic has seen BigTech expand their business models far beyond their initial use cases. Amazon, for example, systematically expanded from a book distribution platform to cater for an expansive – almost exhaustive – range of retailing needs, and since 2018 has been responsible for \$1 in every \$2 spent online in the US. By creating an ever-growing bundle of services, Amazon has become the go-to e-commerce destination for consumers, a trend accelerated by the Covid-19 pandemic. Today, Amazon makes it increasingly necessary for all but the largest retailers to join its platforms whilst simultaneously limiting the scope for rival platforms. Through the addition of new lines such as groceries, Amazon creates vast economies of scale and scope, enveloping would-be specialist platforms and challenging rivals in each new vertical it enters, including category leaders like Walmart, with respective share price progression illustrated above.

Banks, and in particular current accounts, can be viewed in many ways as a platform model of the 20th century. Incumbents, who provide free current account services to consumers, have long boasted of their number of products per customer (PPC) – quoted as high as 6 for premier account customers of leading

UK banks. This has been fostered by a relationship built around the current account platform from which additional services are bundled to create both economies of scale and scope. This in turn has become the expectation of consumers who want a one-stop-shop for financial needs, creating a barrier for new entrants. This barrier has proven hard to navigate for FinTechs whose innovation focuses in one area of the banking ecosystem.

While all informants agree that the traditional disruptive path is significantly constrained and reshaped by the regulatory context, it is also clear that a platform business model is particularly suitable for financial services.

Having seen the impact of BigTech in other industries, the banking industry is understandably keeping an eye on the potential for BigTech to deploy their platforms in banking. Amongst our informants, some saw this as a matter of time, whilst others doubted it would happen at all, with the cost of regulation commonly cited as the largest barrier. Interestingly, even among those who saw entry as a certainty, none considered that it was already happening – this is supported by the fact that no BigTech company has yet acquired a full banking license in the UK. However, this should not fool anyone. Over recent years there has been significant activity from BigTech players in banking-related services, resurfacing and reiterating the question of where banking starts and ends.

Illustration of BigTech descentance into banking, adapted from CBInsights and Business Insider

	Amazon	Facebook	Apple	Google
Payments	Amazon pay Amazon cash Reload Amazon allowance	Messenger WhatsApp Instagram Libra	Apple pay Wallet	Google Pay
Wealth			Apple Card	
Insurance	Amazon protect		Apple Care	Car Insurance (Pilot Stage)
Unsecured lending and credit*	Amazon lending		Apple Rewards Card Apple Card	Thru Partnerships on Google Pay
Mortgages and secured lending*				
Other			Apple Store	Current accounts (announced for 2021)

*Core banking profit pools

As shown in the table above, BigTech are actively broadening their platforms into a number of areas of the financial ecosystem, in particular payments. This may partly be due to the lower regulatory burden of payments; as one insider put it – e-money license holders can ‘zip around like bugs’ compared with more heavily regulated deposit-takers. Another potential reason is datafication. Access to the payments network provides a vast amount of new data on consumer preferences and buying habits, which can be coupled with existing platform data to enrich BigTech’s understanding of its customers and create new opportunities for monetisation and lock-in.

As well as acquiring new sources of data, activity in financial services to date is also offering BigTech the opportunity to further monetise their existing data stacks. Amazon’s extension of credit to businesses on the platform via Amazon Lending, launched in the US in 2012 and in the UK in 2015, is a prime example. Amazon already has unrivalled access to data on its seller community. As the sole source distributor for many of its merchants, Amazon already knows product type, quantity and, importantly, revenue generation of each seller per month. This information can be used to profile sellers’ ability to pay and extend credit on a targeted basis, far better than a bank could without access to similar data. From this advantage, Amazon can begin to use this data to learn more about risk modelling and other core areas of banking. The same dynamics are true of Facebook and the social media

platforms, who capture swathes of data on individuals that can be collated with payments and other financial data to create new and innovative banking products.

Entry into these, perhaps peripheral, areas of the banking bundle could be the extent of BigTech’s ambitions in banking. However, they appear to be the start of a broader envelopment. While troubled in its execution, Facebook’s closed libra ecosystem has the mission to ‘enable a simple global payment system and financial infrastructure that empowers billions of people’³. It has since attracted a significant amount of debate and regulatory attention from both the Federal Reserve Bank and the Bank of England, among others. Similarly, Google has announced its ambitions to enter the US ‘checking account’ market with an anticipated consumer launch during 2021. This gradual participation in banking services in many ways mirrors the classic disruptive path described by the innovator’s dilemma (Christensen, 2003). BigTech’s acquisition of elements of the banks’ bundle could represent a similar path to market domination. Ceding markets that they previously dominated may leave incumbents open to a fuller platform envelopment by BigTech in their most profitable services, such as mortgages and consumer credit. This trend is also evident in the table above by the number of lending and credit services already offered by BigTech.

³ www.libra.org

The Chinese financial ecosystem: A blueprint for the future?

With the regulatory landscape encouraging new entrants and banking customers favouring well-known brand names, it is easy to imagine a future for the sector where BigTech plays an increasingly dominant role. Pointing to the platformification of banking, the Bank for International Settlements in their paper 'BigTech in Finance', discuss the broad democratising effect that BigTech can offer financial services, but also warn of the potential risks of market power and misuse of data from their vast economies of scale and scope.

We suggest that this trend towards platformification is a good reason to take a look⁴ at the Chinese Financial Sector and understand how the FinTech ecosystem built there may provide relevant insight for the future of banking in the Western world.

Two notable features of Chinese FinTech companies have traditionally distinguished them from their counterparts in the West. Firstly, the majority of popular

Chinese FinTechs are (or have been) affiliated with tech giants, making their user acquisition and ecosystem building easier and cheaper. Among the most popular FinTechs, Ant Financial is affiliated with Alibaba, Tencent Financial Technology is affiliated with Tencent, JD Finance with JD.com. Secondly, leading FinTech companies in China often offer multi-channel services and operate in multiple verticals, much like BigTech the West. For example, the Alipay app developed by Ant Financial allows you to pay, lend, borrow, invest and get insurance all within one app, using one account, while most western FinTech companies have so far focused on one specific use-case or FinTech sector.

The table below illustrates how, in China, all financial services that traditional banks such as ICBC and BOC have previously offered, from loan origination to asset management, are now also offered within the bundles of the largest tech companies.

	Europe & US	China				
	Wide array of successful, focused FinTechs	Large FinTechs usually part of broader ecosystem				Relatively few niche, standalone FinTechs
		Ant Financial	Tencent	Ping An	JD.com	
Payments	PayPal Stripe	Alipay	Tenpay	E-wallet	JD Pay	99Bill Lakala Ping ++
Wealth management	Betterment Wealthfront	Yu'e Bao	Li Cai Tong	LU.com	JD Finance JD Expert	CreditEase Golden Axe Wacai Suishouji
Financing	LendingClub SoFi	Ant Check Later	WeSure Zhong An Insurance	Ping An Orange	JD Finance	Qudian.com ppdai.com Dianrong.com Rong360 Yirendai
Insurance	Oscar Metromile	Zhong An Insurance	WeBank	Ping An Insurance Zhong An Insurance		
Banking	Atom	MYbank	Tencent Credit	Ping An Orange		
Credit scoring	Credit Karma	Zhima Credit	Tencent Credit	LU.com	JD Credit	

⁴ We thank Bojian Sun for his input in making this comparison.

While we suggest that the evolving regulation and the success of the platform business model for cross-sector growth point to platformification of banking, much in the way we can observe in China already, there are reasons to believe that this change will be slower in the Western world. Firstly, populations in China are generally younger and more digitally-savvy compared to the populations of the West. Secondly, the relaxed regulatory framework with respect to data privacy and financial regulation in China during the early years, an important factor that enabled quick mass adoption, is notably absent in the West where data privacy is at the centre of many government revisions of existing regulations today, including GDPR and to some extent, Open Banking. Similarly, banking regulators are wary of the unconstrained rise of Eastern FinTechs and the

systemic risk posed by unregulated global firms in general, something the regulators in China appear to be waking up to, given the recent suspension of Ant Group's listing in Hong Kong and introduction of regulatory supervision of a number of their business units, including the lending platform business. As reported in Reuters, among the demands are for Ant Financial to overhaul its credit rating business to better protect personal information, similar to the GDPR regulation in Europe that restricts the use of information across platforms. Overall, it is in this context that we suggest that the platformification of banking will be slower in the West, which will give traditional banks more of a window to boost innovation in an effort to protect market share.

4. Conclusion

Open Banking has been a great catalyst for innovation in the banking sector. It is also a double-edged sword as it paves the way for global platforms to more easily enter the sector and thus carries the danger of creating an even more oligopolistic market structure. As one UK Open Banking regulator admitted during our interview: 'More than anything else, it is Amazon and Google that keep me up at night'. We call on regulators and policy makers to accelerate efforts to define the boundaries

of data privacy and data usage across sectors in order to level the playing field between entrepreneurial innovators and established BigTech platforms entering the banking sector. Without these boundaries and regulations, the network effects created by access to cross-sector data (i.e. data network effects) will continue to increase the power of BigTech platforms in every sector, including banking.





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