Pinsent Masons

INNOVATE FINANCE

The Future of Open Banking, beyond January 2018

An industry report by Pinsent Masons and Innovate Finance

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Foreword

The Pinsent Masons viewpoint:

Open Banking is one of the most exciting developments in financial services for years. It has the potential to revolutionise how consumers engage with financial products and services. For example, consumers will find it easier to review their financial position across different accounts and payments will be disrupted, with new parties initiating payments, moving into the territory occupied by debit and credit cards. The combination of bank details and big data analytics could prompt customers with real-time financial advice and direct them to products that work for them.

Based on the work we have done, it is clear that customer trust is key to Open Banking's success. And assuming the trust is there, we believe that changing consumer behaviour will require incentives – otherwise there is a risk that consumers will stick with the status quo. We can expect banks and fintechs to collaborate to create new banking products and services.

Our report discusses Open Banking opportunities as well as what banks and fintechs need to do to take advantage of them. We also discuss what future business models will look like under Open Banking and how the new world of Open Banking will interface with other big legal change such as the General Data Protection Regulation.

This is a fast-moving area and the issues are emerging – indeed as we went to print the Chancellor announced in the Budget that the scope of the UK's Open Banking reforms would expand beyond current accounts. Therefore, this report is 'version one', kicking off a discussion we expect to evolve.

Open Banking ushers in a brave new world, a world in which those who embrace its opportunities will flourish.

Yvonne Dunn, Partner, Pinsent Masons

Foreword

The Innovate Finance viewpoint:

Open Banking has the potential to transform the future of financial services, increase competition and create a better consumer experience. This is a significant step for banks and innovators – whether fintech businesses or large technology companies alike. Transaction and financial data once held by traditional banks will be available to third parties, giving them exciting opportunities to deliver services that are tailored and relevant to individual customers.

As this report highlights, Open Banking builds on the digital change we have seen shape the financial services industry in recent years, and promises to not only re-imagine existing markets, but to create new data-driven services altogether.

This important initiative also strengthens the role and influence of fintech companies in the financial sector, as they have the agility and technology know-how to make data sharing and alternative payment methods possible and to disrupt the status quo. Indeed, we are already seeing collaboration between fintechs and financial institutions in preparation for this change, many of which are seeking to harness the immense value of their data to remain competitive in what will become a crowded consumer market.

However, as this report suggests Open Banking also brings with it a number of challenges that we must collectively overcome, from: ensuring we gain and maintain consumer trust, to adhering to sound data protection and security practices, whilst creating the right incentives to ensure successful consumer adoption.

Open Banking is therefore about creating the accompanying framework to address these issues. In doing so the future may be one where we start to liberate the data held in other financial accounts, transforming our relationship with financial services and enabling banks and businesses to deliver better value-added services, drive customer loyalty – and, ultimately, create a future of finance that's better for everyone.

Charlotte Croswell, CEO, Innovate Finance

Topic One

The opportunity is immense

Open Banking provides great opportunities for all sorts of businesses, including existing banks and fintechs, to innovate, strengthen customer relationships, and gain a share of new emerging financial product and service markets.

While payment services, and banking more generally, have undergone transformational 'digital' change in recent years, Open Banking promises a further step-change from early 2018 when new EU payment services laws take effect.

In the UK, parallel requirements set by the Competition and Markets Authority (CMA) are also mandating change.

Background

Not so long ago consumers and businesses were limited in the ways in which they could make payments and access information about the transactions they make.

Cash, cheque and credit cards were, for a long time, the only options for payment, whether consumer or business. The 1980s, however, brought revolution with the arrival of telephone banking. This was followed by chip-and-pin payment cards made available in the early 2000s along with online payment services as the internet gave birth to e-commerce and it began to grow.

Online banking has since continued to develop, with mobile apps seeing a growth in popularity as more and more people become increasingly reliant on their smartphones. Many online and mobile payment solutions now focus on making transacting a slicker, more convenient activity, particularly as customer expectations have heightened since widespread adoption of 'contactless' payments.

These developments have led to an increasing opportunity for effective 'personal financial management' ("PFM") solutions. Where customers previously had to access each of their bank or payment accounts individually making it difficult to get an overall picture of their finances, PFM tools enable them to view this information in real-time, aggregated form. Building on the work of early pioneers of transaction account aggregation services, the opportunities open to innovators appear exciting.

Today, the market is a hive of new activity and innovation. For consumers, there are cards that allow you to spend from multiple accounts, credit providers that use transaction history to create a fairer credit score and mobile payment products offering incredible loyalty packages and rewards. For businesses, B2B payments can be made faster with less associated cost, intelligent algorithms can help manage cash flow and track business expenses and business loans can be accessed quicker with less arduous paperwork.

Reforms to regulation appear set to move the markets forward towards wider adoption. The foremost reform having this impact is the revised Payment Services Directive (PSD2). The revised Directive came into force in 2016 but will not take effect until national laws across the EU implement it. These national laws must be in force by 13 January 2018.

The move is designed to improve competition in the market. It is seen as a chance for innovators to disrupt existing markets dominated by banks, but also for banks to revolutionise the services they offer and strengthen the way they engage with customers.

Regulatory intervention has been necessary as, despite the opportunities arising for banks, they have been busy dealing with the problems of yesterday and have had to assess their priorities accordingly. Without regulatory intervention, the opportunities on their own may never have been enough to compel change.

The recent global financial crisis spurred a tightening of financial regulation and has forced banks to prepare for a world of 'ringfencing', where their investment arm is kept separate from their retail business, in an effort to avoid the collapse of banks in the future. Banks have been forced to react to new rules on the amount of capital they are required to keep in reserve, as well as other measures designed to protect against future systemic risks.

PSD2 is a further area of regulation to which banks are being asked to adapt. In the UK, those reforms are complemented by a broader shift towards an 'Open Banking' future. The CMA's retail banking review led it to recommending that Open Banking standards be developed to improve competition in personal and business current account markets. These standards only apply to the UK's nine largest banks: RBS, Lloyds, Barclays, HSBC, Santander, Nationwide, Danske, Bank of Ireland and Allied Irish Bank (the CMA9).

The CMA9 must have the standards, which include a new 'read-only data standard' and a 'read/write data standard', in place by 13 January 2018 – the same date that the EU's revised Payment Services Directive (PSD2) is due to be implemented.

The CMA-initiated order requires the common standards to be developed using open application programming interfaces (APIs) and conform to standards on data formatting and security, including for authorisation and authentication. These in turn enable the CMA9 to share data with other providers, and with 3rd party service providers including: price comparison websites, account information service providers (AISPs) and payment initiation service providers (PISPs).

From the CMA's perspective, Open Banking is of course not simply about enabling innovation for innovation's sake. The CMA's Retail banking market investigation, published in August 2016, found that the four largest banks in the UK accounted for over 70% of main personal current accounts and over 80% of business current accounts. Open Banking was deemed a remedy needed to boost competition amongst retail banks.

Current picture

PSD2 is aimed at opening up the payments market in the EU to innovative new services. Banks and other payment service providers (PSPs) will be required to provide access to payment account information of their customers to approved PISPs and AISPs at the request of those customers on a non-discriminatory basis. Only in select cases, such as where banks suspect a fraud risk, for example, can that access be denied.

Access will happen through secure channels and, in time, in accordance with new regulatory technical standards that are still being developed.

In order for PISPs and AISPs to benefit from the new rights of access to payment accounts information, they will be subject to regulation for the first time. Particular obligations arise in the area of data security which are additional to the new requirements and broader focus on data protection introduced by the General Data Protection Regulation (GDPR).

Once regulated, PISPs and AISPs can apply to be (white)listed on the 'Open Banking Directory'. This Directory is the key architectural component that enables regulated participants to enrol with Open Banking and initiate interactions with each other through APIs. At its core, the Directory is an identity and access management service providing identity information and security certificates to authorised users of Open Banking. These security measures are designed to ensure the integrity of the service providers and protect customers.

Future impact

The new world under PSD2 and Open Banking offers a myriad of opportunities.

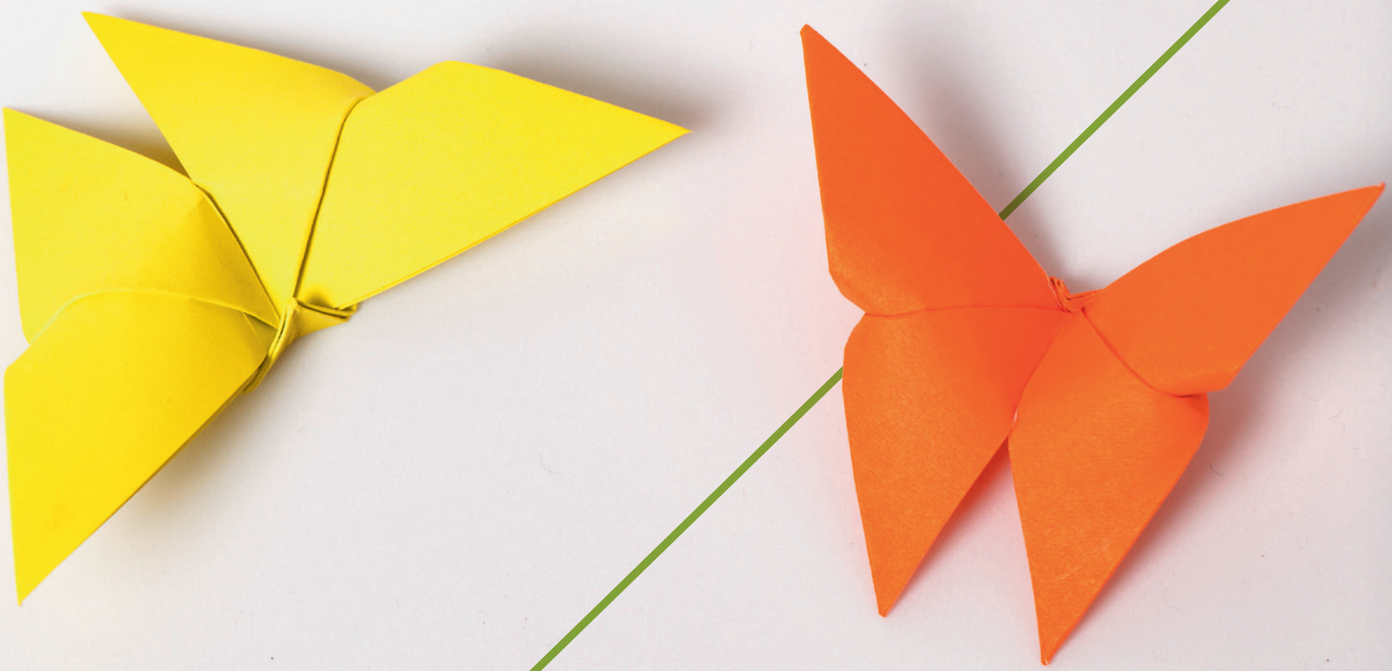
For banks, there are opportunities for those that embrace Open Banking to expand on the range of services they offer in the payments space. Banks start from a position of strength, with the largest share of the market and existing customer relationships. In addition, banks benefit from greater trust among consumers on issues such as data security and business viability, having had the opportunity to gain their confidence in safeguarding their money over significant periods of time.

For innovators, whether fintech business, large technology company or other disruptive force, there is a chance to get a better foothold in various existing, new and previously unaccessible banking markets.

Using new rights of access to bank account and transaction data and combining this with the opportunity to collaborate with the existing financial services players and other new entrants to the market (including retailers, utility providers and technology companies) could provide important insights on consumers' and business customers' financial lives, giving them the power to make informed financial decisions.

The possibilities are almost endless, and it will be fascinating to see how the market develops.

> *"From the fintech perspective, the brand value and associated trust brought by partnering with an established player cannot be overlooked, especially when facing a significant trust barrier with new customers."*



Topic Two

Collaboration is essential

Collaboration between banks and fintechs will be at the heart of the future of 'Open Banking'.

That is the consensus of experts from across industry, according to a study carried out by Pinsent Masons and Innovate Finance.

The new world of Open Banking stems from new EU payment services laws and, in the UK, an Order which implements market remedies intended by the Competition and Markets Authority (CMA) to address competition concerns amongst retail banks. This new regulatory regime promises innovative services developed by businesses enabled by new rights to access to data held in payment accounts.

Banks and fintechs that work together can both gain from the opportunities Open Banking presents.

Why collaboration is needed in open banking

Bud, which describes itself as 'part fintech app store, part financial marketplace, part search engine', told Pinsent Masons why it believes collaboration between banks and fintechs is needed.

"Forward-thinking banks recognise that collaboration between banks and fintechs is the way forward. These tech-focused products have what the bank needs: agility, low cost base and great, low friction experiences. The banks have what the fintechs need: credibility, trust, and a large customer base. Combining the two will lead to better banking experiences in all sectors."

Banks and fintechs will need each other to thrive in the world of Open Banking, according to third party payment specialists MANGOPAY.

"It is now understood by banks and fintechs that collaboration is key for mutual success, and the future of banking depends on Open Banking APIs," MANGOPAY said. "As fintechs have shown during recent years that they are able to succeed thanks to their great capacity for innovation and their ability to design products that respond better to users' needs, banks have started to collaborate closely with fintechs. They don't see them as competitors anymore, but invest in them or buy them."

"The time of the eternal fight between newcomers and big organisations is coming to an end because both banks and fintechs realise now that they need each other to grow – for the fintechs, or survive – for the banks," it said.

The shift towards a collegiate approach was also identified by one senior staff member at a leading retail bank.

"Many banks have for some time looked to have a dialogue with fintechs through the likes of hosting hackathons. In recent years I would say the engagement has shifted away from competition to one of collaboration, where banks look to leverage their strengths, such as consumer trust, data, and scale, with that of a fintech, for example their agility, speed and often niche products on offer."

However, it's not just single partnerships between banks and fintechs where the opportunities lie. The best collaboration might take the form of multi-party arrangements or a syndicated approach.

Priviti, a provider of secure digital authentication services, said banks will need to collaborate with different partners in different market segments, from small business banking to consumer banking, private banking or corporate banking.

"To work closely and dynamically with different partners in each segment, banks will need to equip small and multi-disciplinary teams of staff inside these lines of business with versatile tools to securely exchange many types of data with partners, obtaining and retaining records of the end customers' consent," Priviti said. "These generic processes will underpin a huge number of new business model innovations in the Open Banking era."

A representative from a second major bank told Pinsent Masons that "an ecosystem of collaboration is crucial."

They said: "We've been looking at third party suppliers for opportunities and potential joint ventures to leverage good ideas. For Open Banking, collaboration with fintechs is key to get the most out of it. However, it is a balance. We want to be as competitive as possible ourselves, but we are mindful that some of the risks are better managed by fintech partners."

"Some customer-facing teams are delivering the changes and working with customers more directly. This has not filtered through so much to the back office functions. So there is still a way to go, but collaboration is certainly happening at the coal face," they said.

The opportunities collaboration presents in open banking

There are already examples of collaboration happening in the sphere of Open Banking, with benefits for both banks and fintechs. Close to the time of writing this paper, HSBC announced that it is partnering with Bud, to offer users of its online only brand First Direct Bud's financial management tools. Barclays is working with Flux, a UK fintech making receipts digital and paperless, initially trialling 10,000 customers and NatWest has partnered with FreeAgent, which allows small businesses to track their finances and report their taxes digitally.

Credit Kudos, a credit scoring platform, said: "We're already seeing deals announced by the likes of HSBC and can expect more in the pipeline. With so much potential coming with the advent of Open Banking, it's likely that many major banks will favour a partnership/collaboration model in order to invest in as many different business models and opportunities as possible. From the fintech perspective, the brand value and associated trust brought by partnering with an established player cannot be overlooked, especially when facing a significant trust barrier with new customers."

Greater collaboration offers the potential for innovation. Curve, which provides customers with a single payment card to use for all their payment accounts, and which is part of the government's steering group on Open Banking, said the regulatory changes have helped change banks' attitudes towards collaboration.

According to Curve: "Banks have traditionally kept their data 'guarded'. But with Open Banking, sharing their data and users with third parties will become standardised. The move will eliminate a key reason they may have avoided partnering in the past – no incentive to share access to customers – and increase the emphasis on innovation through three main routes: buy, build or partner."

"As a leading fintech speaking with a number of global banks, we've seen first hand that the move towards PSD2 and Open Banking has made incumbents think differently about their approach to innovation and collaboration," it said.

Standardisation is promised through open APIs, and their development will help expand traditional banking and payments markets, Priviti said.

"We think that there will be excellent collaboration in a very large number of newly discovered 'microsegments' of the financial services market, which weren't discoverable and serviceable when banks and fintechs developed separately. However, when banks and fintechs collaborate using platform economics and API-driven service innovations, we expect the market to expand."

"New customer needs will be discovered; more specialist or younger businesses will get loans; money that could have fallen through the cracks will get placed on deposit; people with more specialist jobs or more volatile earnings will get mortgages etc. All of this will happen because the combined ecosystem of financial services platforms and apps will generate better data and more efficient distribution of services," it said.

The future direction of collaboration in Open Banking

Further innovation is likely to arise should banks look beyond the scope of PSD2 and the CMA's Open Banking order to liberating data held in other accounts, such as savings and mortgage accounts, YoYo Wallet, a mobile payment and rewards business, said:

"If banks build on the initial Open Banking APIs to provide more access to data across more products, there is an opportunity to build strong collaborations between old and new financial services companies," YoYo Wallet said. "Banks should welcome this – fintechs will generate more innovation in the financial ecosystem than banks could ever do on their own, and the best ideas can then be taken 'in-house' to be developed at scale."

"The customer base of banks and the speed of innovation of fintechs will result in the development of some brilliant new services," it said.

The market dynamics will change as businesses from other sectors, predominantly technology companies, look to take advantage of the opening up of the banking and payments markets under PSD2 and the UK's Open Banking reforms, according to MANGOPAY.

"We know that banks and retailers will get a head-start and that services like personal finance management will make the AISP offering very attractive," MANGOPAY said. "For sure, and the trend has started already, trusted social media companies, such as Facebook, Twitter and LinkedIn, and tech companies like Google and Apple, will capture a significant slice of the market."

"However, again, collaboration with large merchants and the partnerships they forge will be key in the adoption of PISP services. There are great challenges ahead for both AISPs and PISPs to know the types of service that will be the most successful: innovation will be key to meet evolving consumer expectations. Third-party market players considering a PISP-based proposition will need to launch cutting-edge products to meet consumer expectations," it said.

> *"However, when banks and fintechs collaborate using platform economics and API-driven service innovations, we expect the market to expand."*

Topic Three

Trust is key

New payment services must gain consumer trust through sound data security practices to succeed.

Without the trust of consumers, third parties requiring consumer consent to use new rights of access to bank and payment account data will struggle to make an impact in the market.

That is the clear message from a survey carried out for Pinsent Masons and Innovate Finance of the views of a number of fintech businesses. Fintech business Fluidly believe that trust will be based on three elements: transparency of activity, security and their brand.

"If the first movers can establish themselves in those three areas they will attract a wave of early adopters who are willing to experiment for financial or other incentives, for example to avoid credit card fees from more traditional PIS providers," Fluidly said. "Trust in AISPs are a little further along the adoption cycle for SMEs and sole traders as this functionality already exists for many of the accounting software packages that already offer bank feeds."

While initial research suggests consumer sentiment towards AISPs and PISPs is one of distrust, Currencycloud counters this: "How would you have responded if 10 years ago you were asked if you would entrust an app on your phone to do your online banking, arrange a date for you or order a meal? The answer would have been 'what's an app?'"

"The question of whether consumers trust AISPs or PISPs is in the abstract – consumers can't relate to questions like these in theory. What will be interesting to see is adoption rates once there are live AISP and PISP enabled products in the marketplace. Most people are apathetic to things they can't see or touch (like risk) so my personal view is that we'll see take up of these products."

Education will also play an important role in generating trust. According to a recent survey carried out by Which? 92% of the public haven't heard of Open Banking. Payment Components notes that this is important: "Breaking free from the routine of accessing your banking information, solely from within the "gated community" environment, of your own bank's applications, will inevitably require a mental leap from consumers. This is why education and raising awareness regarding what PSD2 is, how it works and what kind of built in provisions it has to enforce security, is a major step in the path towards wide adoption of third party providers and PSD2."

Bud, which is collaborating with HSBC, believes its approach of collaborating with banks will help address customer security concerns.

"We believe our model, supplying the AISP experience via the bank's existing channels, will be the most successful adoption method," Bud said. "Customers will be in an app they trust with a brand that they habitually use to manage money. It will be minimal effort for customers to experience the new norm in finance."

Priviti has taken the view that existing trusted brands stand to gain most when the PSD2 reforms first take effect.

"Consumers are likely to quickly adopt AISP-enabled business models if they are offered by proven and trusted consumer brands," Priviti said. "AISP-enabled business models that combine bank data with other highly relevant data to produce innovative new services are probably likely to be more successful than offerings that just try to improve the presentation and analysis of bank data."

There is optimism within the fintech community that consumers will be willing to embrace new services.

According to Token: "New companies will need to gain consumer trust, but many challenger banks and retailers are already paving the way for this. Solutions that do not rely on screen scraping have a critical role to play here in terms of partnering with banks, retailers and payments processors, to create a secure pipeline through which information is shared."

According to Leveris: "Consumers will trust PISPs for the simple reason that the average customer doesn't know or care how their transaction is processed, they don't actually know that this is revolutionary and that this process disintermediates payment processing removing the card rails, scheme and merchant acquirer."

Innovative new services, that deliver benefits to consumers, will help to win consumers' trust in those brands and alleviate concerns on security, according to some in the industry.

"As third parties give consumers more options in terms of access to products, better or faster service, discounts or incentives, we will start to see an increase in trust," said Token. "The winners who gain consumer trust will be those who deliver a truly frictionless user experience without sharing usernames, passwords, account details, or any other 'shared secrets'."

What do consumers think?

Consumer sentiment similarly indicates the need for robust security practices to be adhered to and communicated to the market. A survey by Pinsent Masons and Innovate Finance has found that 72% of adults in Britain would be worried about their personal details being stored by a payment company that is not their bank. More than twice as many consumers also said they would trust an existing payment company like PayPal to handle their transaction data (26%) over a large technology company like Amazon (10%). This data indicates how important having a trusted brand and a strong track record, whether a bank or fintech, will be in making Open Banking a success for consumers.

Although the initial consumer feedback is a concern, we will have to wait to see how consumers react once Open Banking comes into play. In the same way that people say they do not trust strangers, and then get into an Uber or rent their house out on Airbnb, what consumers say now may not be how they act when presented with the opportunity to use financial products and services that add real value to their day to day lives. In this respect, ensuring issues around liability, security and consent are adequately addressed, may go some ways towards alleviating some of these initial concerns.

Legal requirements

Sound data protection and security will of course be vital and the importance of these measures is highlighted in PSD2 and in the CMA's Open Banking order.

The PSD2 'recitals' suggest that "potential security risks" exist in "the payment chain" of some models used in the market because of shortcomings in existing payment services regulation. They state that those risks have increased in the intervening years between the original Payment Services Directive and PSD2 coming into force as e-payments have become more complex, voluminous and new types have emerged.

PSD2 stresses the importance of protecting customer credentials and says that personal data processed in the provision of payment services must accord with EU data protection rules. According to the PSD2 recitals, data protection by design and data protection by default should be "embedded in all data processing systems" in the context of payment services.

"How would you have responded if 10 years ago you were asked if you would entrust an app on your phone to do your online banking, arrange a date for you or order a meal? The answer would have been 'what's an app?'"

Payment service providers are obliged to deploy security measures that are "proportionate to the security risks concerned", and are required to adopt measures that involve encryption and authentication codes. PSD2 also requires regulated businesses to establish "a framework to mitigate risks and maintain effective incident management procedures", and requires the reporting of major security incidents without undue delay to regulators.

The CMA Open Banking order requires the new open API standards to be developed by an industry body which it establishes, and to cover security, authorisation and authentication. The CMA has said that the open API standards must provide for "robust security arrangements and identity management to protect this far more sensitive information". It has also indicated that customers must be "fully protected against privacy and security risks and fully informed of the potential benefits and risks of sharing their financial information with third parties".

"Consumers are likely to quickly adopt AISP-enabled business models if they are offered by proven and trusted consumer brands"

The CMA also notes that data and security standards will need to take account of the EU's General Data Protection Regulations and the 4th Anti Money Laundering Directive. Understanding how these overlapping pieces of legislation fit together therefore is essential. For example, as some commentators suggest, understanding where liability sits (both for data controllers and processors) in an increasingly networked ecosystem, alongside adhering to the principles of "informed consent", and data minimisation, will be crucial to the smooth roll out of Open Banking.

"As third parties give consumers more options in terms of access to products, better or faster service, discounts or incentives, we will start to see an increase in trust," said Token. "The winners who gain consumer trust will be those who deliver a truly frictionless user experience without sharing usernames, passwords, account details, or any other 'shared secrets'."

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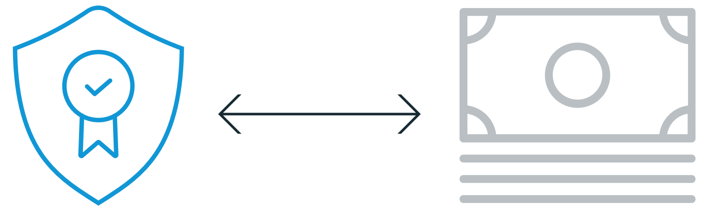
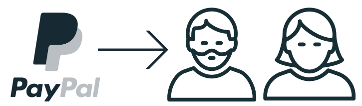
Trust & security & new payment service providers





26%

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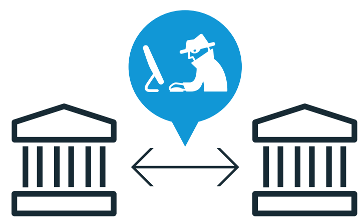
10%

72%

72% of GB adults would be worried about their personal details being stored by a payment company that is not their bank.

73%

73% would be worried about becoming a victim of fraud when using a bank-to-bank transfer alternative to a debit or credit card.



Topic Four

Incentives are a must

Banks, fintechs and other businesses entering payments markets for the first time stand to gain significant market share if they can find a commercial model that incentivises adoption of their services by retailers and consumers alike.

The mechanics of making payments and accessing account information held by banks will change from January 2018 under the EU's new Payment Services Directive (PSD2). Parallel changes are promised under 'Open Banking' reforms in the UK.

While issues such as trust in and security of new payment services will need to be addressed, the reality is that few people care about the technicalities involved in how they initiate and execute payments – so long as the process is smooth and the money moves as intended.

The real challenge for account information service providers (AISPs) and payment initiation service providers (PISPs) seeking a share of the payments market is to persuade consumers and businesses to use their new services instead of or in addition to traditional bank services or services developed by rival fintechs.

> *"There is a powerful business case for merchants as the payment value chain becomes much more simple and the need for traditional fee structures no longer exists. It is inevitable that some of the big merchants will see such a powerful business case that they will drive the change. Just look at what Transport for London did for contactless. We are seeing a number of major merchants and gateways starting to think this way."*

Partnership between these third party service providers and retailers offers great potential.

A survey conducted for Pinsent Masons and Innovate Finance found that 31% of adults in the UK aged between 18 and 24 would share their transaction data in order to get vouchers or discounts when shopping online.

Aware of these consumer sentiments, many PISPs are no doubt looking to incentivise retailers to adopt their payment solutions and enable those retailers to offer discounts and other benefits to their customers.

Everyone seems to think first about personal finance management tools when thinking about AISPs. However, there is great incentive for banks, lenders, insurers and others who need to price risk to use the data that is aggregated from payment accounts. Any business that is reliant on credit scoring is incentivised to reduce 'bad debt' customers. Partnerships with AISPs which are most effective in analysing transaction flows are likely to be highly sought after.

The view in the market on incentivising adoption of new payment services

There is a mix of views amongst existing fintech businesses of the extent to which incentives will be needed to encourage take-up of new PIS and AIS solutions.

According to Leveris: "If I received a discount from the merchant equal to the amount the merchant saves by direct bank linkage versus going over payment rails then that is incentive enough – the tipping point has already been reached."

Those views have been echoed by Priviti: "The card schemes have always had asymmetric pricing i.e. they are far more attractively priced for consumers than for merchants. Many consumers also currently benefit from fee-free banking for payments initiated from their bank accounts. As such, it seems that consumers don't have a huge natural incentive to switch to PIS, as both models are highly attractive for consumers. However, there is a real incentive for merchants to sweeten the deal for consumers, with loyalty points etc., to try to move traffic from debit and credit cards to PIS."

Currencycloud thinks that other players outside of financial services may help drive incentivisation: "Fraud and security fears around AISPs may be prevalent for the time being, but adoption will be quicker than you think. It will start with standalone fintech applications, but when companies like GAFAs (Google, Amazon, Facebook, Apple), give you the option to pay direct from your bank account – perhaps with a discount (empowered by no interchange fees) you'll soon see wider adoption."

Credit Kudos has said, though, that it may be 2019 at the earliest before payments architecture has developed to the point where there is a sufficiently wide set of payment initiation APIs in use for consumers to use PIS solutions over debit or credit cards.

According to Payment Components "the advent of advanced API powered consumer facing products", such as micro-financing loans embedded in the payment process, could "tip the scale in favour of PISP initiated payments". It has suggested that credit cards will still be preferred by consumers in need for credit until the market evolves in this way.

YoYo Wallet has said that if the economics of new payment models do not work for consumers, uptake of new services is likely to be slow.

"Consumers will be successfully incentivised to use PIS as a payment alternative only if retailers encourage it by offering discounts or other incentives," YoYo Wallet said. "Retailers should be able to achieve that as they'll no longer incur the card charges they currently pay on each transaction. If this doesn't happen, uptake will be small – old habits die hard, and the card-on-file / Apple Pay models that use card tokenisation to speed up the payment process are now quick and easy for consumers to use."

Fluidly has said that there is a virtuous cycle that PISPs could benefit from if they get the business model right from the outset.

"Once the PIS can establish itself with a set of early business and consumer users more and more businesses will start offering PIS as an alternative to debit and credit cards," Fluidly said. "This will then contribute to the validity of PIS to both businesses and consumers, who will quickly realise the benefits. The PIS provider that drives triggers will be the one that can pass on the financial savings whilst provide a superior user experience for both payee and payer."

There are benefits for retailers too from the new commercial models that PISPs and AISPs could promote, according to Token.

Token has said: "There is a powerful business case for merchants as the payment value chain becomes much more simple and the need for traditional fee structures no longer exists. It is inevitable that some of the big merchants will see such a powerful business case that they will drive the change. Just look at what Transport for London did for contactless. We are seeing a number of major merchants and gateways starting to think this way."

"They benefit from improving margins and disrupt in the face of disintermediation, and can improve customer acquisition and retention by passing on fee savings to their customers. Merchants and gateways who embrace Open Banking to deliver a better customer experience with savings create a win-win for everyone," it said.

Credit card companies will of course continue to work hard to offer incentives to spend whether through points, miles, cashback arrangements or other means. There is good reason therefore for the view that incentivising the use of alternatives is essential.

> *"It will start with standalone fintech applications, but when companies like GAFAs (Google, Amazon, Facebook, Apple), give you the option to pay direct from your bank account – perhaps with a discount (empowered by no interchange fees) you'll soon see wider adoption."*

Topic Five

Age and income as success factors?

Innovators in payment services must look beyond youth for customers.

Innovators in payment services must do more to convince people of all ages to adopt their services if they want them to become mainstream.

There is potential for providers of payment initiation and account information services (PISPs and AISPs), whether fintech startups, challenger banks, technology companies, or incumbent banks, to use forthcoming regulatory changes as a force for good in the economy and wider society.

The extent to which the solutions offered by PISPs and AISPs can enable financial inclusion will be a factor in their success, if properly managed.

However, a survey carried out on behalf of Pinsent Masons and Innovate Finance showed that consumers of all ages may need convincing to switch from traditional payment services to new payment initiation and account information services promised in the future.

Age and income factors in attitudes towards new payment services

The survey showed differences in the attitudes of consumers in the UK towards practices likely to arise as the revised EU Payment Services Directive (PSD2) and Open Banking reforms in the UK take hold from January 2018. Notable differences arose across age and income categories.

According to the survey, 52% of British adults aged 34 or under would be encouraged to use a PISP over a debit or credit card, if given a discount on an item they were purchasing. For adults aged between 35 and 54, 44% said they would do the same, while just a third (33%) of adults aged 55 or over said they would too.

The difference of attitudes across age groups was also evident where consumers were asked for their views on whether they would be willing to share their transaction data to use a service that helps them analyse their spending habits. More than one in five (22%) of British people between 18 and 24 years of age who were surveyed said they would be happy to share such data for that purpose, but just 4% of over-55s said they would share data in those circumstances.

The survey revealed that 31% of young people between 18 and 24 years of age in Britain would happily share their salary details with a business that is not their bank. A greater proportion of that age group – 58% – said they would be happy to share their transaction data with non-banks.

26% of young people (18 – 24 year olds) also said they would share their transaction data to use a free service that would help them to improve their credit scores, and 31% of the people between 18 and 24 years said they would share that information if it meant they would get vouchers or discounts when shopping online.

The data clearly shows that there is a proclivity towards the younger generation readily using Open Banking products and services. While discounts seem to be the strongest incentive, improved credit scores and analysis of spending habits can also be used to drive adoption amongst young people (18 – 24 year olds). However, finding drivers for people aged over 55 will be important in engaging this generation and preventing a widening of the digital divide.

Consumers on higher incomes are also more likely to engage with new payment services offered by PISPs and AISPs, according to the survey results.

More than half of the adults surveyed (58%) who earn at least £50,000 a year said they would be encouraged to share their data if it meant receiving a discount, but the majority of consumers earning below £35,000 said they would not be encouraged to switch services on the incentive of a discount.

This implies that financial security and potentially the availability to access credit is more important to people on lower incomes than discounts available through Open Banking. New Open Banking solutions may need to look to other incentives to drive adoption in the lower income bracket, for example alerts to prevent late fees associated with overdrafts being charged (i.e. through an AISP) or other associated interventions.

Industry does not view age as a barrier

Pinsent Masons and Innovate Finance asked a number of fintech businesses whether they view age as a factor in designing PIS or AIS customer journeys.

Credit Kudos said: "To some extent, though it should be noted that plenty of users in higher age brackets currently use personal finance management tools and are regular internet banking users. I expect the two highest causes of friction will be: users not knowing the correct online banking credentials, and fear of phishing scams."

Leveris said it did not think age would be too big a factor. It said: "If the user is already executing online transactions then this process [using PISPs and AISPs] is actually simpler and easier to use so [it] actually may grow the user base beyond what's currently there."

However, Payment Components said that age "will play a role" in the third party services that are predicted to emerge under PSD2. It pointed to other fintech solutions being more popular with younger generations as a reason for its prediction.

Fluidly said uptake of new payment services will be "more likely correlated with [consumers'] financial savviness and risk appetite" than their age. It said, though, that age "may play a part in the more trendy tech innovations".

Similarly, Token suggested factors beyond their age will influence how attracted consumers are to the solutions on offer from PISPs and AISPs.

"Whether young or old, it will be more to do with perceived risk appetites, that are most decisive and it will be down to the industry to provide confidence in new technology," Token said. "Age will not be the only factor that the sets the pace for uptake. We know that where and with how many banks a consumer has accounts is a determining factor for adoption, and current shopping behaviours and preferences will also be a leading indicator."

"Personal finance management will be a critical selling point for consumers, while businesses who are multi-banked and need real-time account information will want to understand their financial position. However, when it comes to aggregation and money management we should not be surprised if those that have the most to gain from good money management, such as empty nesters [parents whose children have grown up and left home], do not immediately jump on the opportunity to drive more return from their hard-earned savings," it said.

Finding drivers for 60+ according to Kalgera

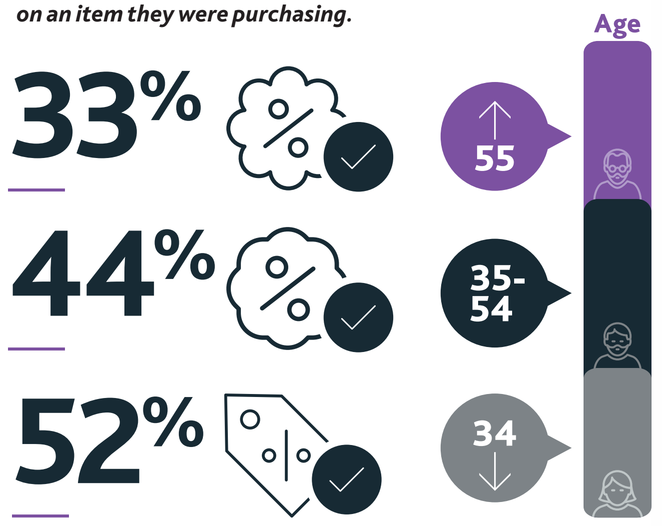
Older people (60+) represent a quarter of the UK population and the "old age pensioner" archetype is rapidly fading away. Older people are the fastest growing internet user group and have expanding spending power. People who came of age in the 1960s and who are now retiring demand access to much more choice than their parents' generation. It would be a great miscalculation if the industry were to overlook the demographic shift currently unfolding.

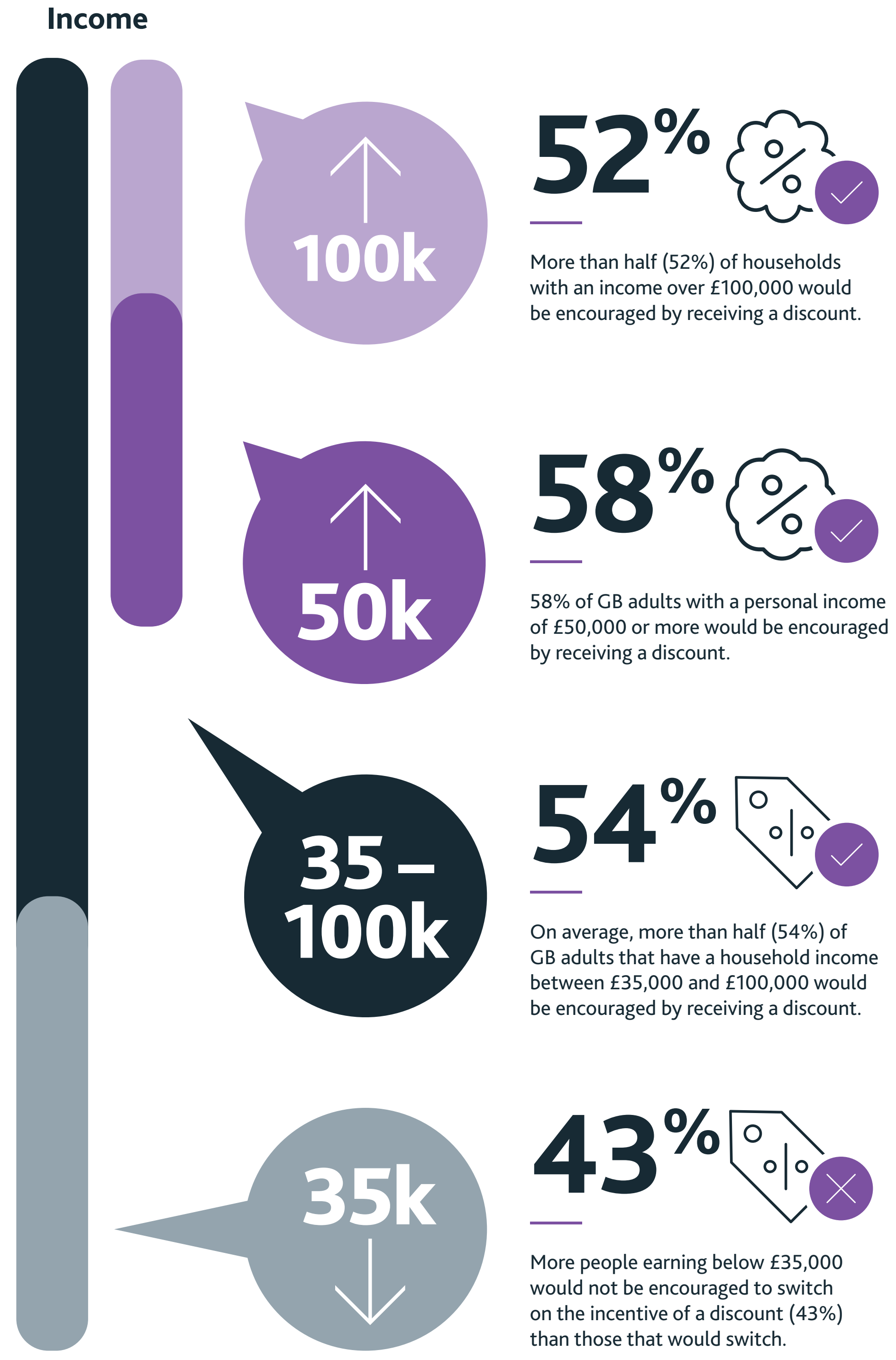
Recognising the spectrum of need across all life stages is crucial in designing PIS and AIS customer journeys which address specific problems faced by consumers. Making pragmatic adaptations to offers that deliver tangible benefits to consumers while educating them on the issues will drive adoption rates in all age groups. Benefits such as improved savings, enhanced scam detection and wider financial inclusion for vulnerable customers represent significant gains. However, at this early stage we recognise that industry partnerships between startups and established financial institutions will be required to boost adoption by those who are in greatest need of these benefits.

Incentives and online shopping

(switching from credit/debit cards to 'payment initiation services')

% of GB adults who would be encouraged to use PISP over a debit or credit card, if given a discount on an item they were purchasing.





> *"Screen scraping has been a good middle ground between API integrations going live to show the value of aggregation."*

Topic Six

The future of screen scraping

The debate on 'how to' access data held in payment accounts operated by banks and others account holding institutions has been intense.

Broadly, everyone largely agrees that secure open APIs are the best way forward from a technical standpoint. But as PSD2 does not mandate open APIs, while the CMA's Retail Market Investigation Order does though only in relation to a limited number of banks, a solution that suits everyone has yet to be found.

The utopia of open APIs easily accessible and usable by everyone for every type of customer data held by banks and other account holding institutions is not something which will be a reality any time soon. Accordingly, views about the path forward have continued to diverge between law making institutions such as the European Commission and HM Treasury and regulatory bodies such as the European Banking Authority and the Financial Conduct Authority. Fintech businesses and banks of course also have their own views.

What is screen scraping?

There are various ways in which you can describe how one business accesses data held on another business's systems. If a business logs into another business's systems with its permission and extracts data from its systems, it is reasonable to describe that access as directly accessing the information.

If information is freely available on the internet however, it is possible for a business to access information that resides on another business's systems without that business's permission. Though some object to the terminology, many refer to this means of access as 'screen scraping'.

Some websites do not make information freely accessible to all and instead require users to login either on a paid-for or non-paid-for basis. Screen scraping can be used in these circumstances by users sharing their login credentials with a third party who can then access the information from the website portal. It is possible for the screen scraping business to notify the website that it is accessing its systems. It is also possible for the screen scraping business to simply access those systems as if it were the user.

Screen scraping in other contexts

Screen scraping is not unique to Open Banking. Businesses such as travel websites have long been engaging in the practice, pulling data on flights, for example, into their own booking portal from other websites for consumers to view and take action on. The issue of screen scraping has even been considered by the Court of Justice of the EU (CJEU) in this context in a case that concerned Ryanair.

The discussion in the travel website context has focussed on intellectual property and database rights. Owners of databases to which copyright protection attaches have greater rights to restrict the extent to which users of their databases can make use of data than those which would not be entitled to copyright protection.

Related questions around the relevance of the Computer Misuse Act and its ban on unauthorised access to systems and the extent to which permissionless access can be viewed as inducing a breach of contact have also had an impact on the extent to which screen scraping has been relied upon as a means of extracting data.

Screen scraping in the Open Banking context

The debate around screen scraping has been one of the spurs for new regulation.

While participants operating under PSD2 and Open Banking will be subject to regulation, screen scrapers will still be allowed to operate on an unregulated basis for some types of data and for other data at least for a transitional period.

There are mixed views across industry about whether screen scrapers will survive the push towards the use of open APIs for accessing data in a more controlled, regulatory environment.

A senior payment provider professional told us: "I believe this will follow a similar path as adblocking. It's a technology arms race which will continue as long as it is profitable. There is more data available from screen scraping than any API so it will always be in demand, for example in relation to secondary accounts; loan offers; mortgage reminders. In an information business this additional data is worth the effort."

Bud described screen scraping as "a means to an end" for AISPs, but said APIs offer greater potential as a technology.

It said: "Screen scraping has been a good middle ground between API integrations going live to show the value of aggregation. However, APIs are quicker and more standardised and will present more opportunities in analytics and a more consistent experience."

YoYo Wallet was more forthright in highlighting the "outdated and insecure" nature of screen scraping technologies on the basis that "you have to share your password with a third party in order to gain value from it". Yet, it said screen scraping will remain relevant for a time.

"In the short term [screen scraping] is necessary to provide a full view of a consumer's finances, as Open Banking APIs only access a limited set of bank accounts. Eventually it will be replaced by the superior API model."

One major bank told us that the security risks from screen scraping are also applicable to banks and are "quite difficult to look past".

"It will be hard to stem the tide of screen scraping completely in future but we are mindful that risks around security and integrity of data need to be managed," the bank said. "Perhaps people that are more relaxed about using applications that rely on screen scraping are more technologically savvy and know their way around the risks better. There are also potentially generational differences in attitudes towards it. There is more to do about educating people around the use of screen scraping."

"Hopefully the standardisation of APIs could offer a safer way for people to transact in an Open Banking environment. There is a scope for an evolution away from screen scraping as a result of the Open Banking and PSD2 initiatives," it said.

The bank said that nuanced areas of regulation, including in respect of screen scraping, mean that banks could address risks around credentials sharing and potential liabilities with individual third party PISPs and AISPs on a case-by-case basis.

Security concerns have so far not dented consumers' appetite for using services offered by AISPs, and the new model of enabling data access through APIs should be even more secure than relying on screen scraping, Leveris said there should be no problem for AISPs to grow their services further if additional fraud risks are managed properly under the new model.

Leveris said: "Consumers want convenience and oversight of their consolidated financial position and aggregation brings that – doing the aggregation via secure tokens and APIs rather than scraping or iFraming is actually more secure than the current practice. The fact that their information is in one place is an issue for fraud but if robust fraud prevention is available and the consumer compensated for loss then there is no real issue."

Priviti said that screen scraping may come in for greater regulatory scrutiny in future.

"Screen scraping tends not to be given a fully descriptive name, which could possibly be 'anonymous/undisclosed screen scraping'," it said. "Now that the EU regulators have enforced a basic API gateway on incumbent banks and do not require new market entrants to pay to use them, we think it's unlikely that industry regulators will have a long-term tolerance for anonymous/undisclosed screen scraping."

However, MANGOPAY said that business calling for screen scraping to be banned should instead focus on having "a more regulated and controlled" environment for screen scraping that avoids "malevolent use of this technology".

MANGOPAY said: "[Banks] should spend more time and money on analysing why someone – most of the time smaller companies – are able to offer a better product with their own data. The debate around screen scraping shows a trend banks need to figure out: data is nothing without the experience that fintechs create on top of it."

> *"There is more data available from screen scraping than any API so it will always be in demand, for example in relation to secondary accounts; loan offers; mortgage reminders. In an information business this additional data is worth the effort."*

Topic Seven

Challenges around governance

Fintechs should be given a greater say on future reforms on Open Banking, but finding a model of governance that is practical and funded fairly could prove challenging.

In the UK, an Open Banking implementation entity (OBIE) has been established to lead on the development of new standards that will enable third parties to access data held in current accounts so that they can deliver new services using that data to businesses and consumers.

However, current arrangements for developing Open Banking standards have been imposed only on the CMA9. There is a case for broader representation for others into how Open Banking standards should be governed in the long term.

Governance of Open Banking

The CMA9 have been tasked with setting up and funding an 'implementation entity' to "implement, maintain and make widely available" the suite of new open banking standards which are being developed under the terms of the CMA.

The OBIE is formed of consultants from a variety of disciplines and these consultants report into a steering group. The CMA9 are represented equally around that steering group, but the entity's work can also be influenced by financial technology companies, 'challenger' banks and businesses active in the payments market, as well as consumer groups. These other companies serve as observers along with the CMA, the Financial Conduct Authority (FCA), HM Treasury and the Information Commissioner's Office (ICO).

The steering group is led by a trustee whose role is to get consensus. However, the trustee also has the power to take decisions where consensus cannot be achieved. OBIE is a not-for-profit organisation made up of members – the sole member at the moment is the trustee.

The governance model is relatively untested as the standards being devised have not yet come into operation, but it was the intention of the CMA to move away from previous models of governance in the banking market where those with the power had control over the delivery.

The Payment Systems Regulator (PSR) – set up to regulate major payment systems in the UK – is funded by banks in delivering its objectives, which place competition and innovation at their heart. It would be questionable whether a similar model for the OBIE, with banks represented and fintechs and others on the outside looking in, would accord with what the CMA intended.

However, while representation for fintechs among others is needed, the issue is one of how to fund governance bodies and how those organisations go about decision-making.

Some within industry are already calling for changes to the Open Banking governance model, while others have faith that natural competitive forces will drive reforms in a way which benefits a wider network of businesses.

According to Priviti: "Europe is a very regionalised economy and financial services market, so a lot of innovative use of Open Banking is likely to be regional, at least at first. In that regard, it was a shrewd move in the UK to give the maximum possible clarity to the initial introduction of Open Banking. However, if the API economy and platform-based business strategy takes root in financial services like it has in other industry sectors, perhaps the long-term future of the Open Banking Implementation Entity is not that important."

"We expect the more progressive banks to develop their API suites well beyond their legal obligations, causing other banks to respond in kind. Based on activity in other industry sectors, natural competitive forces should drive the evolution of Open Banking after PSD2/CMA creates the initial stimulus," it said.

Bud is working very closely with the OBIE and its trustee through the innovation charity Nesta's Open Up Challenge, a £5M challenge to find the best Open Banking product for small businesses. It said it is "very positive that the leadership at the OBIE is driven to actualise the full vision of Open Banking".

Curve was equally positive: "Since Imran [Gulamhuseinwala, OBIE Trustee,] joined to lead the implementation, he has had a huge and positive impact on progress and standardisation. I think it makes sense for the banks to continue supporting it – an alternative model would likely be less positive for them. The initiative is about opening up access and encouraging collaboration, so having them involved is an important part of that."

These comments chime with the Chancellor's Budget announcement mandating that the OBIE's work continue beyond January 2018 and extend to creating open banking standards for all payment account types covered by PSD2.

One major bank told us that the proposed PSD2 and Open Banking reforms are "customer-centric" and queried whether governance models in future would change.

"Whether the model of governance is right for the future is too early to say – we would like to see it embedded first," the bank said. "A lot of the changes in Open Banking and PSD2 are customer-centric, designed to open up the market and give others an opportunity to deliver better services. While this focus is right, it will be interesting to see once the changes land whether there is a shift in the way it is governed with a greater voice given to organisations over how to manage the changes."

"For example, firms are being asked on the one hand to manage the risks around customer data and move into line with the new General Data Protection Regulation, and on the other to move towards a world of Open Banking where the risks around data could increase," it said.

"We expect the more progressive banks to develop their API suites well beyond their legal obligations, causing other banks to respond in kind."

"The industry needs to agree a wide-ranging consumer protection model to educate consumers that the PISP model is safe, secure and they will be put right if things go wrong."

"The Android ecosystem has 2.8 million apps and the Apple IOS ecosystem has 2.2m apps, so those platform owners could get into a huge number of disputes with developers should any end users be unhappy," Priviti said. "Of course, end users are generally not unhappy, and those platform owners are two of the most admired and profitable businesses the world has ever seen. The priority for a bank must surely be to have 1,000 developers using its APIs while rival banks have only 100 developers, rather than prioritising the agreement of an industry-standard approach to managing disputes with developers."

Topic Eight

Liability and dispute resolution

Robust liability models and dispute resolution mechanisms are vital to the success of Open Banking.

Many people and businesses could choose to avoid the raft of innovative new services that are expected to emerge from reforms in Open Banking if fraud, financial crime and identity theft risks are not addressed properly.

While there are practical measures necessary to ensure data is stored and communicated securely, it is also important to provide guarantees to consumers that they will be compensated should they suffer loss.

Transparent, definitive dispute resolution mechanisms are therefore essential to give consumers and businesses confidence that they will not be worse off if they choose to use the new services promised through Open Banking.

However, some within industry are concerned that the liability regime established by the new Payment Services Directive (PSD2), and the dispute resolution mechanisms provided for through the implementing legislation in the UK, are not transparent enough to gain customers' trust in Open Banking.

The PSD2 liability model

Sometimes things go wrong with payments. They might go to the wrong recipient, or be delayed due to technical problems, for example. No matter how robust the security systems, there is also always a risk that a security incident or data breach could occur and reveal customer data to unauthorised persons.

A PISP could intentionally or unintentionally make an unauthorised payment on behalf of one of its customers, or it could make a defective payment – one that is less or more than the amount intended, for example, or initiate the payment at the wrong time. As a result, the PISP's customer could then be liable for charges it incurs from others for failing to make payment, for example, or lose interest or other rights of recourse which could arise in a number of scenarios.

In the case of an AISP, potential losses could arise to their customers where a cyber breach of their systems occurs and unauthorised or fraudulent access to the customer's data takes place. Such cases raise the prospect of identity theft and/or financial loss.

The liability provisions under PSD2 deal with the situation where a payment goes wrong and a payment initiation service provider (PISPs) is used. It states that where a payment is initiated through the use of a PISP the account holding institution, e.g. the bank, will be required to immediately refund the payer and restore the debited payment account to the state in which it would have been had the defective payment not taken place. If the PISP is at fault, it will be required to immediately compensate the institution which holds the account.

PSD2 does not however deal directly with the liability arrangements where a data breach occurs. In these circumstances all businesses involved would be required to demonstrate that they have met the data security requirements set out in PSD2 and the General Data Protection Regulation.

It is essential therefore that dispute resolution mechanisms are clear and comprehensive.

One major bank however views current proposals for voluntary dispute resolution mechanisms as concerning: "There is more work to be done on the voluntary dispute resolution mechanism – there is a potential knock-on impact from the scheme for us. On one level we have to reimburse customers first in certain circumstances and then recover our losses from the service provider liable. However, without a clear mechanism to govern that it just won't work."

"It is a bit galling not to have that clarity where there is a financial and reputational risk to manage if the process is not handled properly. It is not a good idea to rely on the sphere of competence as this is a bit of a murky area," it said.

"The question we get asked about a lot is 'who bears the risk', and the answer is that our first obligation is to the customer, and then it is up to us to resolve it with service providers. In some situations customers will have to take up the issue of compensation with service providers first before coming to their bank. The whole system is confusing," the bank said.

Another bank said consumers should be able to resolve disputes directly with PISPs and AISPs, and that a separate mechanism for resolving disputes between banks and the third parties should be established too.

The bank said: "[We are] supportive of the industry developing in an alternative dispute resolution process for consumers of Open Banking to resolve disputes between consumers and third party providers (TPPs), particularly in relation to data/security issues. Gaining consumer trust will be key to the success of Open Banking. With that trust should come the means to resolve disputes which consumers have with Open Banking players in a way which is visible, accessible, workable, simple and fair."

"As banks will not have contracts in place with TPPs, [we are] also supportive of an industry wide alternative dispute resolution process such as arbitration to resolve disputes between banks and TPPs in relation to disputes over responsibility for unauthorised payments," it said.

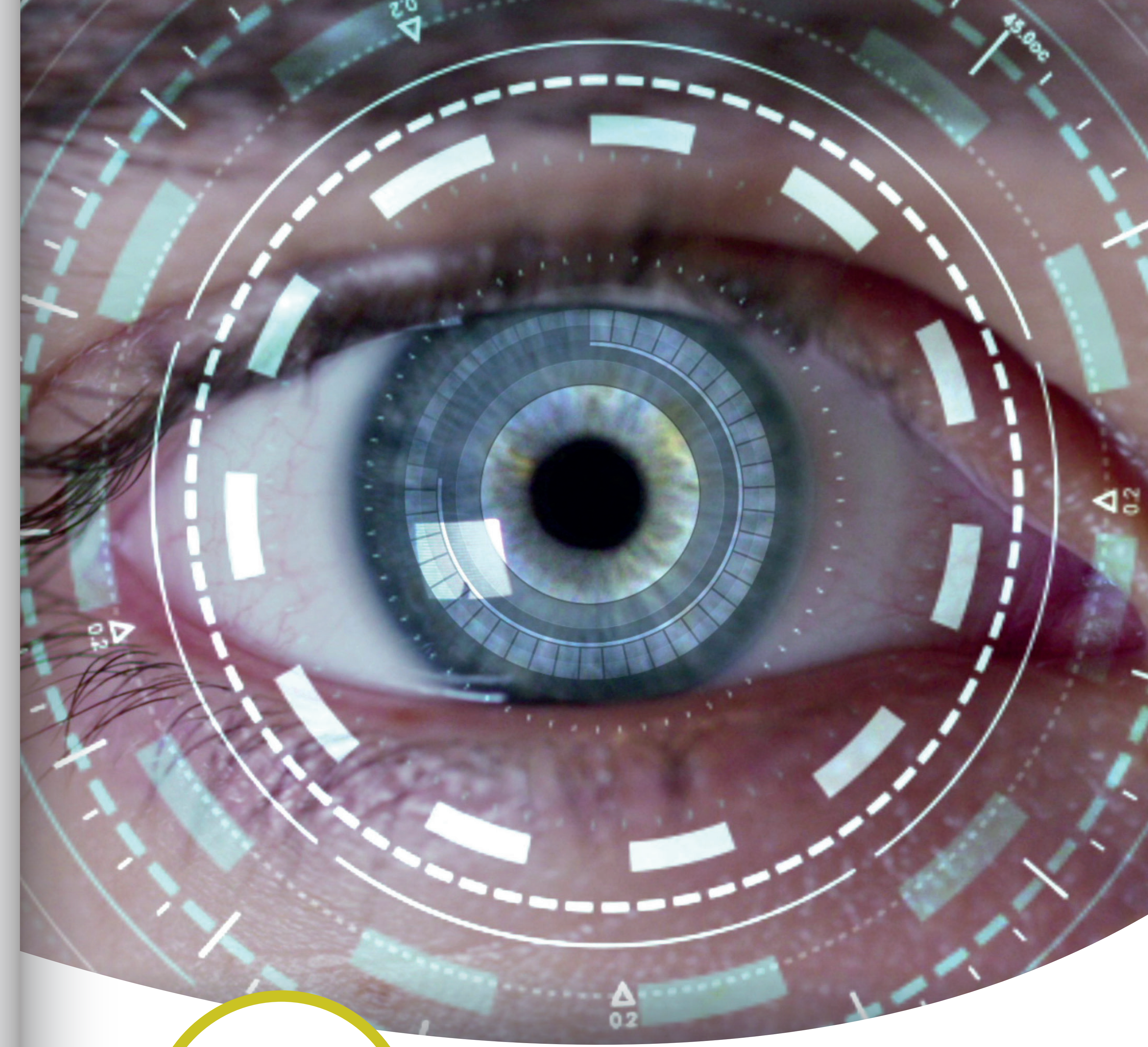
Priviti said, however, that there are more important things that banks should be focusing on than standardising dispute resolution.

"The Android ecosystem has 2.8 million apps and the Apple IOS ecosystem has 2.2m apps, so those platform owners could get into a huge number of disputes with developers should any end users be unhappy," it said. "Of course, end users are generally not unhappy, and those platform owners are two of the most admired and profitable businesses the world has ever seen. The priority for a bank must surely be to have 1,000 developers using its APIs while rival banks have only 100 developers, rather than prioritising the agreement of an industry-standard approach to managing disputes with developers."

Yet, YoYo Wallet said that if dispute resolution and compensation schemes are not properly implemented for the new services anticipated with Open Banking it could negatively impact on the adoption of those new services by consumers. It advocated equivalent protections for customers of PISPs to those that allow consumers to obtain redress from credit card companies for certain contractual breaches or misrepresentations by retailers, or which are available under the Direct Debit Guarantee.

"The industry needs to agree a wide-ranging consumer protection model to educate consumers that the PISP model is safe, secure and they will be put right if things go wrong," YoYo Wallet said.

> ***"The question we get asked about a lot is 'who bears the risk', and the answer is that our first obligation is to the customer, and then it is up to us to resolve it with service providers. In some situations customers will have to take up the issue of compensation with service providers first before coming to their bank. The whole system is confusing."***



Topic Nine

Consent, authentication and authorisation

Process for making payments should be GDPR-compliant, seamless and future-proof.

Consumers will embrace Open Banking if the processes involved in using new payment services are seamless. However, it is not straightforward for businesses to deliver a frictionless experience for consumers due to new legal obligations they face.

Businesses face particular restrictions on processing personal data held in bank accounts. Consent in the context of data processing in Open Banking will need to be 'explicit', as mandated in the revised Payment Services Directive (PSD2) in accordance with the new General Data Protection Regulation (GDPR).

The GDPR, however, does not specify the process by, or extent to which, a business's claim to hold its customer's consent to access data held by another business on that customer's behalf should be verified, other than in relation to consent in the context of data belonging to children.

Alongside the explicit consent requirement will sit new regulatory technical standards on customer authentication under PSD2. These are intended to govern how businesses ensure that the people who are wishing to use new payment services are who they say they are, and that payments via intermediaries are authorised appropriately.

In the UK, the Open Banking Implementation Entity (OBIE) is building a standard that is taking the stages of consent, authentication and authorisation into account in response to the Retail Market Investigation Order 2017, an order initiated by Treasury following a study by the Competition and Markets Authority (CMA), that identified Open Banking as a solution to competition issues in the business and consumer current account markets. If this standard is going to be effective as an industry standard that can be adopted by businesses across Europe, the OBIE's work must account for differing views taken in other significant jurisdictions.

If differences remain as to the steps a business must take in gaining consent, in authenticating customers and third parties, and ensuring that customers have authorised those third parties to access data from their bank accounts or initiate payments, a significant amount of customers may be unwilling to engage with the Open Banking ecosystem.

Standardisation of how businesses operationalise consent, authentication and authorisation therefore is essential if Open Banking services are to be effective in the long term. One way of achieving standardisation from a technical point of view might be to think in terms of data in clusters and develop processes for obtaining consent, authenticating parties and authorisation of access on this basis. For example, a customer could consent only to a third party being provided details of its debits and credits entries within its transaction history while denying access to lists of saved beneficiaries, direct debits and standing orders. The authentication and authorisation processes then should adhere to what has been consented to.

It is essential that what is built for today lasts for tomorrow as PSD2 and compliance with the Retail Market and Investigation Order 2017 is only the starting point. Familiarity and trust are built where the language and processes used are consistent.

A significant issue, however, continues to be around 'redirection'. Once a customer is within an app or on a website, even if it is redirected through its bank's authentication systems, the process needs to be seamless. A failure to ensure that the redirection model does not introduce friction in the process will be a significant factor in the long term to the success of Open Banking.

What the market is saying

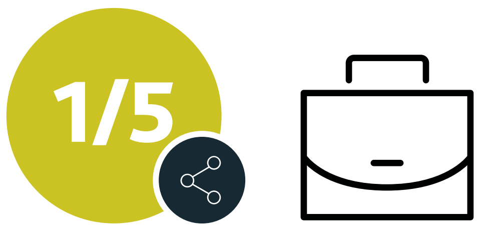
Credit Kudos said that consent mechanisms for Open Banking could be familiar to many consumers.

"I expect a certain segment will be willing to trust account information service providers or payment initiation service providers (AISPs/PISPs) depending on their brand and the product or service they are offering," Credit Kudos said. "Customers already familiar with using OAuth consent flows for social networks like Facebook and Google should find the Open Banking process reassuringly familiar."

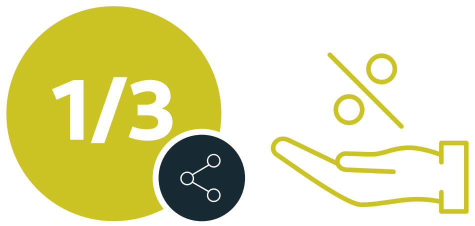
However, it said that there are concerns around liability that are linked to consent mechanisms that need to be addressed behind the scenes.

"How liability models will be enforced, with multiple actors potentially being liable in case of breach [is a key security concern around the use of AIS]," Credit Kudos said. "For example, if I've given consent to 10 third party providers and my data are compromised, how do I know who is accountable?"

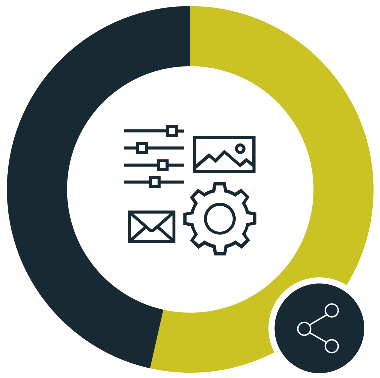
Sharing data & innovative services



One in five 'young people' (GB adults aged 18 – 24) would be "completely comfortable" sharing their salary details with a business that is not their bank.



Almost one in three (31%) young people (aged 18 – 24) would share their transaction data in order to get vouchers or discounts when shopping online.

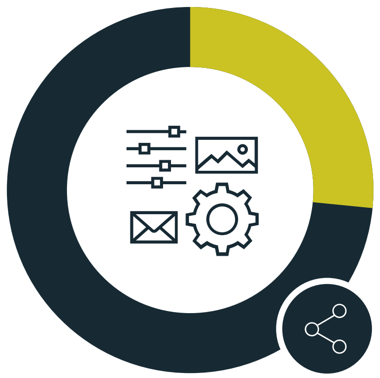


58%

A majority (58%) of young people (aged 18 – 24) are happy to share their transaction data with a business that is not their bank.

22%

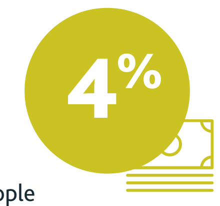
More than 1 in 5 (22%) young people (aged 18 - 24) would share their transaction data to use a service that helps them analyse their spending habits.



26%

A quarter of (26%) GB young people (aged 18 - 24) would share their transaction data to use a free service that would help them to improve their credit scores.

22%



More than 5 times as many young people (22%) (aged 18 - 24) would share their transaction data to use a service that helps them to analyse their spending than people aged over 55 (4%).

Topic Ten

Regulatory alignment in a Brexit context

In a Brexit context, regulatory alignment takes on an even greater degree of importance.

Open Banking is a global movement that goes well beyond the scope of PSD2 and the Retail Banking Market Investigation Order 2017 (CMA's order) in the UK. Those involved in developing standards and governance models to enable it must lay the foundations for global solutions that are useful in a wider variety of situations than those initially envisaged by the CMA and the EU institutions which brought PSD2 into force.

It is vital that UK standards being worked on by the Open Banking Implementation Entity (OBIE) are not developed in isolation.

This is challenging. Both PSD2 and the CMA order are driven towards the same outcome – enabling access to accounts to enable innovative services. However, the CMA order deals with Open Banking standards in the context of business and consumer current accounts and applies directly only to nine banks, while PSD2 applies to a broader range of payment accounts and institutions.

There is no doubt a clear benefit to designing Open Banking standards in the UK which can meet not only the scope of the CMA order but also the UK's own legislation implementing PSD2. However, Brexit provides a further imperative for alignment. As PSD2 will be implemented by January 2018, the UK will have over one year of conforming to this legislation before the agreed date for the UK's departure from the European Union on 29 March 2019.

Financial institutions, fintech businesses and other financial service providers are all concerned about potential differences between rules in the UK and the EU in the future as a result of Brexit. They fear additional costs to regulatory compliance from such divergence. Further work is therefore needed to ensure that what is developed in the UK is aligned with potentially different ways in which PSD2 may be implemented in other European countries. A fragmented approach is of no benefit to businesses, particularly those that operate on a cross-border basis.

The way forward

It is fundamental that standards developed at the outset of Open Banking do not lead to the development of systems that are divergent across jurisdictions.

There are lots of stakeholders with different ideas about the 'roadmap' ahead and plans with specific visions are moving quickly forward. What we can learn from the present though is that it is important that future governance models move away from a focus on delivery of standards under tight timeframes to supporting the development of overall Open Banking ecosystem over a long period of time.

Careful decisions also need to be made about how to extend representation in the governance frameworks beyond the nine major banks subject to the CMA's order. There is a need to ensure that the decision making process is collaborative and not dependent on individuals or specific institutions. Equally, questions of ownership and funding of the governance body must be determined and agreed in line with what will benefit a range of market participants.

Topic Eleven

Open Banking in 2025

By 2025 the payment services market could look very different.

> *“There is an acknowledgement that, in future, banks will have to move into the market for account information services and payment initiation services to remain competitive,”*

> *By 2025 “several payments will be partially automated / initiated by robo-advisors, with minimal input from the consumer”*

An app store for new payment services, robo-initiated transactions, and credit cards payments could become a thing of the past. That is a vision of the payment services market in 2025 presented by some within the industry.

However, others are more conservative with their predictions, citing business resilience risk and data protection regulations as potential dampeners on innovation.

The extent to which new payment initiation and account information services succeed could also depend on how secure new services are and whether ‘Open Banking’ becomes synonymous with large scale fraud.

Pinsent Masons together with Innovate Finance, asked for industry’s views on what payments markets might look like in 2025 ahead of the revised EU’s Payment Services Directive (PSD2) and Open Banking reforms in the UK taking effect.

One major bank said that they believe Open Banking will “take time to catch on”.

“Initial take-up may be slow, largely because many people are still wary of sharing financial information,” the institution said. “The slow take-up of the Midata and current account switching schemes are examples of how the take-up of well-intentioned policies can lag.”

However, it said they believe the forthcoming reforms will force banks to expand the range of services they provide.

“There is an acknowledgement that, in future, banks will have to move into the market for account information services and payment initiation services to remain competitive,” they said.

Radical and speedy changes in the market were predicted by Payment Components.

By 2020, Payment Components believe new payment initiation services will be “embedded in a consumer’s daily routine, through a multitude of third party providers”. It said this would have a direct impact on consumers’ use of payment cards, with use of credit and debit cards “lowering” as a result.

By 2025 “several payments will be partially automated / initiated by robo-advisors, with minimal input from the consumer,” it said.

Leveris also predicted that payment initiation services would “dominate within two years” once they go live. This is because PIS is “simpler and cheaper,” it said.

The market will also look “different” for account information services in 2025, Token said:

“The winners will be those that combine a great user experience with security, and the losers will be those who do not move quickly to attract and retain customers with new propositions,” Token said. “Intelligent payments will be the foundation of the next generation. Open Banking is the start of this, but the real key will be the ability to manage conditions and controls, and to move data at a transaction level. That’s where Token is focusing efforts to support the next generation of payment capabilities.”

Currencycloud also believes the market will look very different: “I think we’ll see banks playing a central role in custody, trust and transactional services at a wholesale level. There will be a layer of fintechs revolving around this core, providing users with better experiences and overseeing more of the customer relationship. However, they won’t ‘own’ the customer relationship, the customer will very much be in charge – especially as [Financial Services] evolves and the digital identity problem is solved.”

Leveris said new forthcoming new data protection laws under the EU’s General Data Protection Regulation (GDPR) could also have an adverse effect on growth in account information services.

“Account information services will be adopted quickly initially, then there will be high profile failures and a slackening of demand until there is a common consensus on how the data protection element should work,” Leveris said. “Perversely the GDPR is a counter force to adoption.”

Credit Kudos said, though, that ‘app stores’ for payment services could emerge in future.

It said: “It is hard to say [what the market will look like in 2020 or 2025] as it depends on so many things. We don’t yet know if the Open Banking standard will be adopted, or if other PSD2-compliant alternatives will become de facto. I expect whatever happens, interaction with financial services will be abstracted by several layers, and ‘app store’ style marketplaces will provide a single point of access.”

According to FDATA, a trade association for businesses involved in financial data aggregation, there are already two million customers of account information service providers (AISPs) in the UK. It said there is “no question” that this number will increase”.

“Lots of models have emerged,” FDATA said. “The ones that have low daily utility will not get so much traction. Simple regular small doses of value will do well.”

A positive future for account information services was also presented by Payment Components.

“By 2020 an aggregated view of one’s financial position will be a commonplace occurrence, reducing the switching cost between different banking providers,” Payment Components said.

“By 2025, AISPs will be offering fully fledged budgeting and forecasting functionalities, which tied together with AI & robo-advising will free many consumers from the chores of controlling their financials and potentially open up new opportunities on how they spend or invest their money,” it said.

> *“interaction with financial services will be abstracted by several layers, and ‘app store’ style marketplaces will provide a single point of access.”*

Contributors

Leveris
Eoin Fleming our CISO

We are Leveris.

We are a technology company who offer a completely modern, modular, non-legacy, SaaS banking platform that is specifically architected to address the key challenges facing financial institutions today.

Our platform contains (i) a full service, end-to-end digital retail bank and (ii) a full-spectrum lending solution.

It has been designed as a cost-effective, flexible and quick-to-market platform for traditional banks, challenger banks, or any consumer brand who wants to enter the banking and lending space.

Priviti
Attributed: Paul Rohan, Strategic Advisor, Priviti
Other contributor: Dave Cunningham, CEO, Priviti

Priviti is an innovative, global, secure authentication technology company whose Proprietary systems can be applied across a broad range of markets. In Financial Services, Priviti works with Industry Leaders to deliver innovative flexible platforms that facilitate Transaction Security and functional Digital Identity. Priviti enabled platforms enable business units to trust and innovate with 3rd parties and their own internal business alike, with peace of mind in relation to governance, audit and risk.

Curve
Shachar Bialick – CEO & Founder

Curve allows you to spend from all your accounts with one smart card, linked to an even smarter mobile app. It aims to simplify your financial life by connecting together the accounts, cards and tools you need to securely manage your money on the go.

With more than 80,000 sign-ups ahead of launching for consumers, cardholders have spent more than £80million with Curve in over 100 countries.

Credit Kudos
Freddie Kelly – CEO

Credit Kudos is formed around a belief that it's possible to establish high accuracy predictors of creditworthiness that don't punish borrowers at the low end of the income spectrum. To achieve this we are leveraging our experience in building high throughput data analytics products to develop a new type of scoring product that provides a fair and true representation of any given borrower.

Credit Kudos started in August 2015, initially out of Freddy's frustration with the cumbersome processes required to apply for credit in the UK. We are backed by a great group of supporters & investors, including Bootstrap, Capital One Growth Labs, Entrepreneur First & NFT Ventures.

Fluidly
Caroline Plumb OBE, CEO

Fluidly is fundamentally rethinking the way businesses plan and manage cashflow and control credit, using data science, accounting domain expertise and machine learning.

Bud
Jamie Campbell, Head of Awareness

Bud is a technology platform that sits across financial institutions that helps people achieve their goals in life. It works by understanding people, based on their transactional data and objectives, and serving them with the right financial product at the right time to get things done.

The platform connects with services from currency exchange, investments, mortgage brokers, utilities, insurance and more via APIs to offer an 'all in one' banking experience.

Bud is turning banking apps and websites into the places people go to get things done.

Kalgera
Dr Dexter J.A. Penn, Founder and CEO

Kalgera is a digital personal financial manager tailored to the needs of older people.

Token
Sales Director – Payments and Channels – Stefano Paoletti

Token is a technology company headquartered in San Francisco with offices in London. Token's open banking platform helps banks quickly and cost-effectively meet the PSD2 compliance requirements before the deadline, and generate new revenue. Further, it raises security and reduces fraud and disintermediation. Unlike in-house developed solutions, Token supports the same API across all banks. Banks that use Token will have access to the most third-parties' applications. This, in turn, means greater revenue for those banks.

Token's team combines years of highly successful execution and innovation in the technology, banking and security sectors. Token's CEO and Founder, Steve Kirsch, has invented several groundbreaking Internet technologies and has had multiple billion dollar exits. Token's co-founder, Yobie Benjamin, was formerly the Global CTO at Citigroup, where he was responsible for the processing of quadrillions of dollars a year in payments.

PaymentComponents Ltd
Elias Gagas, CDO

PaymentComponents Ltd is a catalyst, empowering FinTech Innovation in Financial Institutions, Corporates and FinTechs.

Being a spinoff of a 25-year-old Financial Software development company, PaymentComponents is a unique amalgam, bonding deep Financial Services understanding, expertise in developing mission critical Financial systems and the latest trends in FinTech innovation.

Our API Framework provides a complete, PSD2 compliant, solution for Financial Institutions to actively participate in the FinTech Revolution. It empowers the creation, testing and growth of Platform Based services & fosters the collaboration with the rapidly growing FinTech community.

Through treasury management systems, automated payments & reconciliation solutions, we provide a hassle-free path to FinTech benefits, for Corporates.

Via software components, support and known-how, we enable Rapid & Agile development of SWIFT & SEPA compliant FinTech applications worldwide.

We are empowering FinTech innovation for Computer Associates, JPMorgan, Citigroup, Pictet and Credit Suisse, among others.

For more information, http://www.paymentcomponents.com
Twitter @paymentcomp

MANGOPAY
Pierre Lion – VP Growth – MANGOPAY

MANGOPAY is an online payment technology designed for marketplaces, crowdfunding platforms and sharing economy businesses.

Built by an entrepreneur for entrepreneurs, MANGOPAY takes away the pain of back system payments for growing businesses by embedding white-label technology tailored to each customer that can accept multi-currency payments and pay out automatically worldwide. The MANGOPAY technology seamlessly creates individual e-wallets for buyers and sellers, where funds can be held securely for as long as needed.

Currencycloud
Steve Lemon, VP of Business development and co-founder

Currencycloud is re-imagining the way money flows through the global digital economy, removing the friction and inefficiencies of traditional cross-border payments. Its payment platform and flexible APIs give developers the building blocks to create the next generation of business payment innovations. Founded in London in 2012, Currencycloud is regulated in London, Europe and the North America.

YoYo Wallet
David Nicholson,
Co-founder and VP Strategic Partnerships

Founded in 2013 by Michael Rolph, Dave Nicholson and Alain Falys, Yoyo is the fastest growing mobile payment and loyalty marketing platform in Europe. Through its unique omni-channel point-of-sale acceptance rails, Yoyo delivers a seamless mobile payment and loyalty experience for consumers, whilst providing retailers with the tools to better engage, reward and retain their customers. Yoyo is partnered with several high street retail chains, including Planet Organic, Harris + Hoole, HOP Vietnamese and Wrap it Up. Yoyo also built the branded payment and loyalty app for Caffè Nero, the UK's third largest coffee chain. Yoyo is also present in more than 70 universities across the UK and Ireland, as well as canteens in over 200 corporate locations. Overall, Yoyo processes more than 1.75 million transactions a month, has more than 700,000 users, and over 370,000 monthly active users.

We are also grateful to the other financial services businesses who contributed to this report, but who wished to remain anonymous.

Pinsent Masons

About Pinsent Masons:

Pinsent Masons is a full-service international commercial law firm headquartered in London, with more than 400 partners and 1,500 lawyers in 23 offices across the world.

We concentrate on five core sectors – two of which are Financial Services and Technology. Our sector led approach enables us to work more closely with our clients to understand their needs, objectives and to align our strategies. This helps us to give pragmatic, commercial advice and develop innovative propositions. We share with our clients the deep collective insight, local knowledge, international experience and networks of our people working in a sector.

We work with a diverse range of clients, from individual entrepreneurs and fast growing small businesses through to the largest multinationals and listed companies. We enjoy building long term and sustainable relationships with our clients and we're there to help at every stage of your business's lifecycle.

Contacts: Luke Scanlon and Yvonne Dunn

INNOVATE | FINANCE

About Innovate Finance:

Innovate Finance is an independent membership association that represents the UK's global FinTech community. Founded in 2014 and supported by the City of London and Broadgate, Innovate Finance is a not-for-profit organisation that advances the country's leading position in the financial services sector by supporting the next generation of technology-led financial services innovators.

More than 250 global members have joined the Innovate Finance ecosystem to date. These companies range from seed stage start-ups to global financial institutions and professional services firms. All benefit from Innovate Finance's leading position as a single point of access to promote enabling policy and regulation, talent development, and business opportunity and investment capital. By bringing together the most forward-thinking participants in financial services, Innovate Finance is helping create a global financial services sector that is more sustainable, more inclusive and better for everyone.

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www.pinsentmasons.com/fintech