The Future of Open Banking in Canada

CGI's Response to Department of Finance Canada Consultation 'A Review into the Merits of Open Banking'

11 February 2019

1 Executive Summary

The Canadian Banking Sector serves the public well, but is traditionally conservative, exceedingly stable and change averse. However, with strong influences from the US and Europe, the sector is responding to competition and external change drivers. Regulation in this space needs to ensure the traditional stability remains but creates an environment where competition can flourish to the benefit of Canadian citizens.

Addressing the core questions laid out in the consultation paper, CGI believes that Open Banking is an inevitable consequence of the changing service environment. We are sure that the Government of Canada will take this opportunity to get ahead of market change and regulate to deliver significant advantages for Canadian consumers and businesses.

The business case for more effective banking is clear and has been well recognized across the market. However, the road to realizing the promised savings and efficiencies is not as clear. Lessons can be learned from other markets, such as the European Union and Australia, where Open Banking is being leveraged to create a plethora of new services, some of which will succeed, and some which will not.

Open Banking is not a silver bullet to provide competition and innovation in the financial services sector, but is certainly a strong enabler. It needs to be approached with caution, but as with all market transformations will need the carrot of available financial returns backed by the stick of mandates and appropriate punitive measures. Managed effectively, Open Banking could transform Canada's economy for the better.

In dealing with the 2008 financial crisis, the Canadian Government, regulatory framework and banking industry demonstrated strong resilience. Beginning the Open Banking era with this in mind provides an opportunity to embrace a new age of innovation while creating a strong foundation that will protect consumer interests.

In order to achieve this, the Department of Finance needs to design a regulatory framework that will:

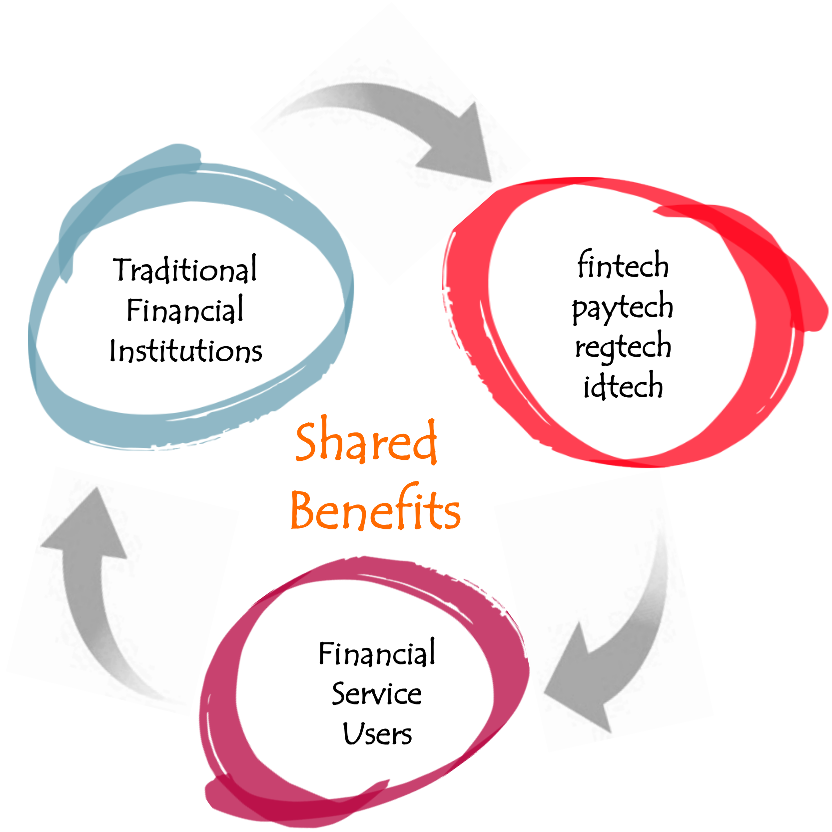
- Create a competitive space that will benefit incumbent providers that have financed shared infrastructure while making provision for all incoming organizations to benefit from, and fund, the future
- Ensure that all service providers in the market are well regulated and dedicated to providing a safe and secure ecosystem, free from fraud
- Provide technical guidelines designed to ensure strong interoperability across Canada and facilitate open competition
- Foster an environment and framework for innovation in the changing markets

2 Benefits of Open Banking for Canadians

Would Open Banking provide meaningful benefits to and improve outcomes for Canadians? In what ways?

2.1 WHAT IS OPEN BANKING?

We are witnessing a profound and radical change to the traditional banking model. The boundaries and roles among players are blurring while bank customer expectations are radically different than just 10 years ago. Open Banking technology, whether driven by competition or regulation, is breaking up the traditional banking value chain, opening up the global banking industry, and profoundly changing the dynamics of the banking market. This is typically achieved by allowing banking data and functions to be accessed using Application Program Interface (API) platforms. These API platforms can receive 'calls' from external software and respond with a specific piece of information or perform a specific function. This could be any function such as blocking or unblocking a credit card, retrieving an account balance, or verifying a company's line of credit.



Many view open banking as a threat to traditional banking, as challengers and fintechs seek to entice consumers through innovation. However, CGI sees it as a great opportunity for collaboration. Traditional banks have the advantage of strong reputations and longstanding client relationships, and, by partnering with fintechs, they can improve their customer propositions and generate new revenue streams.

2.2 BENEFITS

Bank consumers will ultimately decide the future of banking, so for the past four years, CGI has been researching consumer perspectives on digital banking. Our 2017 global financial consumer survey builds on our previous three years of research reports, which track consumer preferences for financial services, along with their satisfaction and acceptance of emerging non-bank alternatives from fintech innovators.

At one end of the spectrum, around three-quarters of consumers believe that their current banking provider keeps their money safe, but less than half believe that they are good value for money. Worse still, only 45% of consumers believe that their current banking provider is an innovative organization.

These are some of the problems that Open Banking can start to address by creating competition in the market. Just as the telecoms market was transformed by introduction of competitive fixed line and MVNO services that leveraged legacy infrastructure, so too the banking market be transformed.

However, while retail banking services are provided to most Canadian citizens, and the benefits for them are derived from a more competitive market, the major benefits from Open Banking come for business and corporate customers of the banking sector.

This was nicely quantified in the 2018 study by Payments Canada and EY, "How can payments modernization benefit Canadian businesses?" which indicated that antiquated payment processing procedures are costing Canadian businesses between \$3 and \$6.5 billion annually. While Canada now has a number of market solutions beginning to tackle these problems, predominantly in the Accounts Receivable/Accounts Payable (AR/AP) space, none of them are currently able to hook into the payments system and so facilitate the final mile of end-to-end processing. This lack of entry points into the payment system is a major obstacle to delivering banking benefits to the market, recently tackled in Europe as part of the PSDS2 package of legislation.

3 Building Confidence in Open Banking

In order for Canadians to feel confident in an Open Banking system, how should risks related to consumer protection, privacy, cyber security and financial stability be managed?

Continuing CGI's many years of primary research into the views of banking consumers around the world, we again dug deep to explore consumer perspectives on financial technology (fintech) concepts, including which services consumers value the most and the types of providers they want to use to access those services. With the advent of open banking enabled across the globe by open APIs and pushed by regulators in Europe, we also explored consumers' views on using third party providers for less flashy, everyday banking activities, such as ordering a new card or answering a basic query.

In 2017, we surveyed 2,250 consumers across the U.S., Canada, the UK, France, Germany, Finland, Sweden, Singapore and Australia to get their perspectives on 10 digital fintech services, such as marketplace lending, mobile payments and robo-advice.

3.1 PERCEIVED VALUE OF FINTECH SERVICES

The 10 digital services analyzed by the survey include the following: protection, personal finance management (PFM), mobile payments, personalized digital experience (both auto- and self-personalization), personalized offers, bartering, alternative currency, marketplace lending (e.g., peer-to-peer) and robo-advice.

The relative ranking of value did not change from previous results, with protection leading all demographic groups and countries—not too surprising in light of recent events that only add to consumers' concerns about cyber-attacks, identity fraud and other security risks.

Notably, consumer perceived value for these concepts was flat or increasing for all, with no service declining in perceived value and substantial (8-9%) increases in terms of personalization. In short, consumers are increasingly interested in a variety of fintech concepts.

3.2 PROVIDER PREFERENCES

While earlier consumer research performed by CGI had good news for banks with 75% of consumers citing a preference to acquire new digital services from their current financial institution, the 2017 survey raised a warning flag in terms of service provider preferences among consumers. Results showed that, while a majority of consumers still prefer to receive new digital services from their current primary financial institution, preference for incumbent banks to deliver fintech innovation is in decline, down by an average of more than 8% in just 12 months. We anticipate that this trend has continued as fintech services become more available in the Canadian market.

These findings reveal a thirst for new services that the incumbent market providers are not delivering. Those that do not move quickly run the risk of consumers going elsewhere for services they want but can't get without turning to faster-moving banks or directly to fintech firms.

For fintechs, it's clear that getting access to customers remains a big challenge. While the increasing openness of consumers to go outside the traditional banking industry may give some fintech leaders renewed hope, the door isn't exactly wide open for a new wave of additional players to succeed with a "go it alone" strategy. Effective Open Banking regulation and creating a more competitive market is still the clearest path for fintechs to overcome the challenge of gaining awareness and consideration on the path to winning customers for their innovative services.

3.3 SECURITY AS A MARKET-LEVEL UNDERTAKING

Often the second victim of cost-cutting (after effective testing), comprehensive and effective security of the financial services market is not only essential for consumer confidence, but also to secure the economic future of the country. Our changing environment and the increasing sophistication of cyber-fraud techniques creates potential vulnerabilities in the banking industry that, if exploited, could destroy customer trust in the system. Any Open Banking initiative cannot be seen as introducing new risk to the system and it is important that a frank, public conversation on the risks of a more competitive market for financial services is held prior to new regulation.

The failure of a single new entrant will create difficulties for the sector as a whole, but more importantly those wishing to disrupt the incumbents and create competition. It is therefore important that security is baked into all future consideration of Open Banking and not bolted on as an afterthought. It is also important to ensure that those promoting insecure technologies or creating increased systemic risk are quickly excluded from transactional service provision.

3.4 OWNERSHIP OF DATA

During the current payments modernization there has many conversations on ownership of data, particularly where third parties and central bodies are concerned. Open Banking appears in other markets to have gone hand-in-hand with a shift towards customer ownership of data. If regulation is to be considered around this area, it needs to be specific on defining which data is necessary to perform particular transactions and giving the customer complete control over what they share and what they don't down to a low level of granularity. If this is done in conjunction with the introduction of effective security, then the market can be opened up safely.

3.5 EDUCATION, EDUCATION, EDUCATION

As the financial services market undergoes massive change in the coming years, education becomes vital to ensure that all levels of society are able to capitalize on the new services being made available. This can only be achieved through effective engagement of the Canadian public at a variety of levels.

While government is the logical start point for broader education of the public through traditional informational channels and inclusion of financial service awareness in school programs, the two arms of industry also need to support the educational cause. A great example of how this can be achieved is the Digital Eagles service provided by Barclays Bank in the UK, which since 2013 has been providing education on a variety of topics regardless of their direct impact on the customer base of the bank itself. This promotion of the type of services now available to clients of the bank and beyond, with a particular focus on the Boomers generation has greatly enhanced understanding across the market. By ensuring that consumers are more aware of criminal techniques, scams and how the online world works, Barclays have benefitted from a market more open to adopting new services, as have their competitors. In a time of market change, investment in education by a corporation can be altruistic at the same time as it is self-serving.

4 The Role of Government in Open Banking

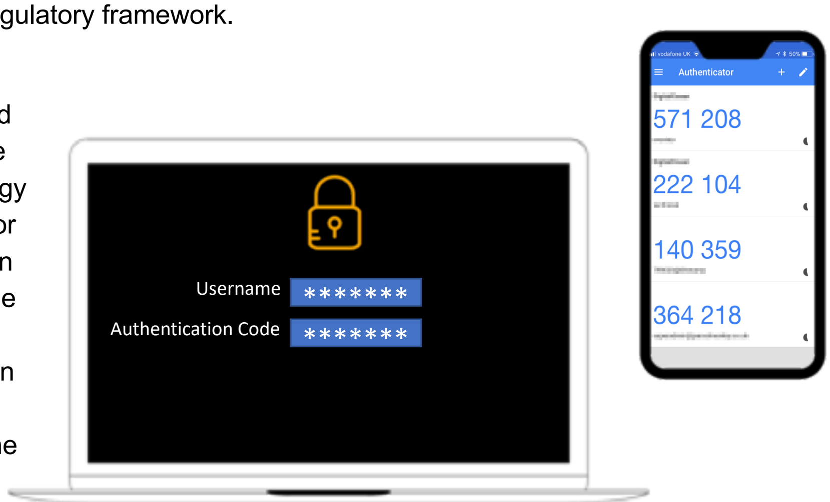
If you are of the view that Canada should move forward with implementing an Open Banking system, what role and steps are appropriate for the federal government to take in the implementation of Open Banking?

4.1 REGULATING ALL MARKET PARTICIPANTS

While some regulation of non-FI organizations exists currently in Canada, it is clear that all companies looking to handle or manipulate financial data, or introduce transactions into the financial system, need a level of systemic regulation and oversight that matches the serious nature of the role that they will perform. In other markets there has been push-back against what is seen as over-regulation of nimble and innovative small companies, which may retard the progress of new fintech, paytech, regtech and idtech companies. However, both the justified conservative approach to banking in Canada, and the simple fact that failures of these companies can profoundly impact their user's lives justifies ensuring that they are formed, managed and secured within a comprehensive regulatory framework.

4.2 MANDATING APPROPRIATE SECURITY

One of the most controversial and heavily debated components of Europe's PSD2 regulation was the mandate covering secure authentication technology and its deployment across the financial industry for all data transaction between multiple actors. Given that the vast majority of European banks below the top tier were at the time failing their customers by not providing adequate security, and the same can probably be said for Canada, this mandate was costly to implement, but absolutely essential as the competitive market opened up. A key lesson learned from the failure of international card networks to mandate uptake of secure chip technology globally was the exploitation of weak



Tokens offered through a mobile app are one of many ways that two-factor authentication can be delivered cost-effectively

parts of the network by organized criminals. As chip technology was adopted in Canada, so the fraud migrated to the US until a point seven years later it was deemed unsupportable and the US began its liability shift and technological migration. As we implement real-time irrevocable payment transactions and open banking creates new players in the market, it would be irresponsible not to address the potential security holes in our banking market. While there is a greater move towards sophisticated detection solutions within our financial institutions, the vast majority still secure online banking access through simple username-password combinations.

This simple access also facilitates current services to Canadians that use 'screen scraping' technology. Screen scraping is a practice used by third-party providers to access user account information by directly logging on to bank-provided interfaces such as online banking and re-using for their own purposes. It has already been the subject of heavy litigation in Europe, since the process was considered contrary to the banks' general terms and conditions. Screen scraping is generally regarded as an insecure practise given that it involves sharing bank-provided security credentials with a third-party company and prevents banks from adequately understanding where logins are coming from.

Regardless of how quickly Canada moves to Open Banking, it should be an area of concern for government in any forthcoming regulation to set minimum security levels for banking channels and those wishing to leverage them. There are a number of in-market initiatives such as DIACC and FIDO seeking to provide standards in this area.

4.3 SUPPORTING TECHNICAL STANDARDS

One of the major inhibitors to adoption of Open Banking is the absence of standards for APIs and data exchange in the financial space. Under Europe's PSD2, this has been the remit of Government, which has published technical standards through the European Banking Authority (EBA) and "power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with Articles 10 to 14 of Regulation (EU) No 1093/2010." However, while this approach helps resolve disparity in the multi-country European market, it may be heavy-handed for Canada. A better alternative is for Government to align to emerging standards being developed by the industry in line with market opportunities.

A good example of this is the Financial Data Exchange, a consensus-based grouping established on the idea that consumers and businesses should have easier, more secure access to their financial data. They are developing a unified Durable Data API standard which should allow more rapid adoption of Open Banking technology by incumbents and fintechs alike. While the financial industry may not welcome new competition with open arms, its ability and willingness to support collaboratively developed standards has historically created significant economies of scale (e.g. SWIFT MT financial messages, EMV, IBAN). Any regulation devised by Government should ideally take into account emerging market standards and support their development rather than seek to supplant them.

4.4 CREATING A COMPETITIVE SPACE WHILE PROTECTING PAST INVESTMENT

Much of the reluctance of incumbent suppliers in the banking space to fully embrace Open Banking is about their desire to protect billions of dollars in infrastructure development over past decades. While they have clearly benefitted from collaborative initiatives and co-development, there has always been a focus on sharing the costs of build and operation of infrastructure. One potentially unfounded fear is the mandated opening of infrastructure to new players that have not borne the costs of its development and will only lightly contribute to its ongoing upkeep while reaping all of the benefits. While it is possible to argue that the privileged position held by regulated financial institutions as the sole providers of profitable services has allowed them to fund this, it remains a valid argument.

The role of Government is therefore to create an open and level playing field in which the incumbents are provided with a fair pricing scheme that allows charging for services provided, but also encourages competition to enter the market. Finding the balance will not be easy as many services directed towards Canadian consumers will not be directly revenue generating. While there is strong justification for a ‘per use’ fee, the European approach to mandating connectivity and prevention of unjustified blocking of third parties will be required to move the Canadian market forwards. As demonstrated in the current payments modernization initiatives, lack of a governmental mandate makes programs such as Open Banking subject to the changing discretionary budgets of our financial institutions.

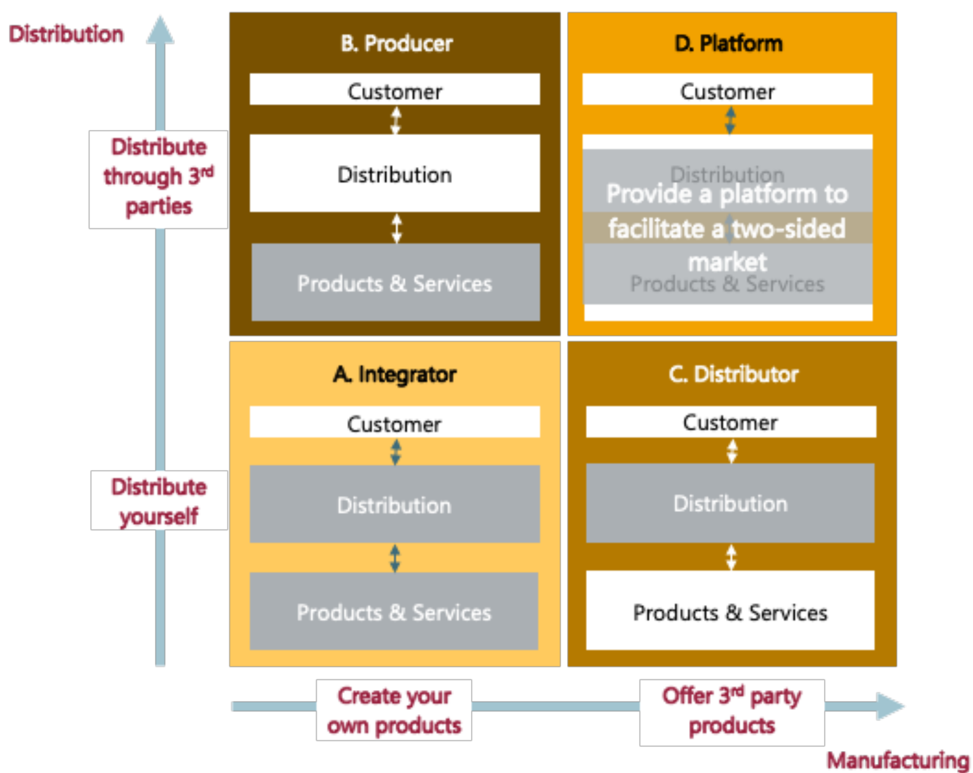
5 Potential Impacts of Open Banking on the Canadian Financial Landscape.

If the Canadian market is opened up through Open Banking regulation, a number of new players could enter the financial services markets. This may accelerate the move to customer-centric business models within banking, as new service providers are able to extend their capabilities.

Subsequently, the services offered by incumbents in this environment will have to be more efficient in providing for customer needs and be differentiated from similar products and services offered by rival institutions. Examples from other markets, such as Germany's solarisBank, show us that the past model for a successful bank is being challenged.

Entrants will take many forms, some of which are already establishing themselves in anticipation of the open API economy in banking:

- **Challenger banks** are entering the market and offering a more customer-focused model that connects the customer to their own products and services, as well as relevant third-party products and services. Their banking platforms and business models are "API first," and they operate more like fintechs than traditional banks.
- **Financial Technology (fintechs, paytechs, regtechs, idtechs)** firms specialize in a particular bank product or service but leverage a model that is more transparent and generally less costly to the customer. For example, UK-based TransferWise is revolutionizing foreign exchange transfer by leveraging a peer-to-peer (P2P) model where TransferWise's platform connects buyers and sellers of different currencies and facilitates currency transfers among customers in a secure and low-cost way. It has also become the first non-Bank to open a settlement account in the Bank of England's RTGS.



The model under which successful banks operate may change

- **Technology giants** such as Facebook, Apple, Google and Samsung may be interested in leveraging financial information available via open APIs to augment their own customer data, refine their marketing strategies, expand their product and service offerings and increase their brand presence and share of wallet with customers. Three of these technology giants (Apple, Google and Samsung) already have entered into the world of payments through offering payment services linked to customers' debit and credit cards.
- **Non-financial service sectors** with retail customers such as utility companies may expand into offering financial products and services traditionally reserved for banks as a way to grow revenues and enhance monetization of their existing customer data sets.
- **Aggregators** will take advantage of developing services such as personal financial management (PFM) tools. Current aggregators in the marketplace, such as Mint in the US and Canada, aggregate basic product information today and offer simple budget planning software for retail customers. The ability to initiate payments via open banking directly and obtain transaction information from a customer's account will support the development of "over the top" applications to aggregate multiple account balances across Canadian banks where customers have accounts, providing customers with access to a consolidated view of their overall financial status.
- **Payment service providers (PSPs) and networks** also will be impacted, both adversely and favorably, by the regulation and the rise of the open API economy. Open Banking will increase competition and lower the cost of transactions in the market for both merchants and customers. Therefore, acquirers and card networks (e.g., Interac, VISA and Mastercard) may see a reduction in revenues from a lower volume of card transactions. PSPs will need to respond by offering this new payment mechanism to customers at point of sale, although some providers such as PayPal already offer similar account-to-account payment services.

Corporate and transaction banks will not be immune to the impacts and potential of Open Banking. The emphasis on APIs in the retail and SME sectors does not mean that it will not be used to drive competition and innovation within corporate and transaction banking.

Already some corporate banks are offering finance aggregation tools across multiple geographies, banks and accounts based on a consolidated view of cash management made possible by API technology. It is anticipated that the rise of the open API economy in time will accelerate the move to real-time, open API-enabled financial aggregation tools.

Although from a geographic footprint and a business model perspective, corporate banking may be viewed as more complex than retail and SME banking that, in itself, is no reason to believe the open API economy isn't and won't be equally as important.

6 Potential Alternatives to Open Banking

Open Banking seeks to solve decades old problems that stem from the ongoing consolidation of the banking sector running since the 90’s, and the massive changes in the technology sector that are forcing a revisit of existing models. In short, our financial institutions are the equivalent of traditional retailers in a sector yet to have discovered ecommerce.

In lieu of regulation, the traditional market dominated by financial institutions in Canada is slowly being opened up by innovative new players and it is important that the methods and models that they are creating are studied when considering how Open Banking can be achieved here.

While many of these new models are having a positive impact on the market, such as those solving the age-old problem of post-dated cheques in the housing rental market, or those providing reconciliation data for Corporate AR/AP, they are typically provided in conjunction with a single bank or through multiple, complex interfaces into a number of financial institutions.

The Electronic Data Interchange (EDI) standards used between most Canadian corporates and their banking providers create significant integration work, which could be replaced and enhanced by adoption of the ISO 20022 financial messaging standards would be both and enabler and a disruptor of the argument for Open Banking.

Likewise, despite its acknowledged security vulnerabilities, the fallback for API-facilitated interactions in the European banking sector has been an enhanced variety of traditional screen scraping technology where certificate exchange is used to create a more secure interaction between the bank and third-party service provider. While this approach is still not ideal, it can create competition without the massive investment required to deliver true Open Banking in Canada.

Open Banking will require a massive investment, far beyond that currently being plowed into payments modernization. Unless it is supported by strong mandates, the rationale for adoption by all of the major incumbents will be low as they will see it as effectively investing in their own disintermediation. It is important that the market created is a level and fair playing field to allow competition to flourish rather than being blocked to the detriment of Canadian citizens. The alternative is a market that fails to take advantage of technological and business change, retaining steady evolution, but at the cost of the users of the system. Open Banking has become necessary as it is the key to the next phase of market evolution.

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