

A Review into the Merits of Open Banking

This document is submitted to the Advisory Committee to the Open Banking Review at the Department of Finance in Canada.

I consent to disclosing my submission and that any proportion of it can be made public.

In line with the public consultation paper by department of Finance in Canada into the merits of Open Banking, this document is intended to give insights from research I've conducted at Concordia University about Open Banking Implementation globally.

Who Am I?

I'm **Marwa Ahmed**, I'm a graduating student from Concordia University in Montreal. I study Finance and Data Science. During my academic years at university, I've grown very passionate about the amalgamation between Finance and technology to fill existing gaps in the financial services industry. Many value-added propositions have been put up by the fintech industry, but one important topic I found very interesting is the Open model of banking proposed primarily in the United Kingdom and following suit in many countries such as Australia, Hong Kong and Singapore, among others. The impact of such proposition is huge and it affects every player in the financial ecosystem and most importantly us, consumers. I'm currently doing an Honours research paper into the Open Banking initiative in North America versus Europe. What I'm looking into specifically is the difference between the two economies in terms of their banking and payment markets and whether there's significant difference that would advocate a market-based versus regulatory-led implementation of Open Banking into the respective economies.

Question 1: Would open banking provide meaningful benefits to and improve outcomes for Canadians? In what ways?

Canadians have long trusted their banks with their data and money, and banks have done an incredible job safeguarding these two essential assets for decades now. The concentration of the Canadian banking industry relative to other economies such as USA and EU has helped build effective communication avenues between different stakeholders. This has been so far the picture painted for Canada. However, with the introduction of Open Banking in many economies in the world like UK, Hong Kong, Singapore and Australia, a new banking model is disrupting the global financial service industry, and it is a matter of time before this disruption wave come to Canada. In fact it has already arrived as we see big banks such as Royal Bank of Canada and National Bank of Canada launching initiatives and collaborating with developers to build apps and tools based on the concept of Open data. This new system comes with benefits to each stakeholder in the financial services ecosystem. Banks, customers, fintech companies and big tech companies will all benefit from this new systems. From a customer perspective, agreeing to share my data with third party service providers such as fintech companies will bring me added products and services that I didn't have access to. These products and services are summarized below:

What product offerings Open Banking brings to customers:

- *Data Aggregation*
Benefit: through data aggregation of multiple bank & service accounts such as trading accounts, Canadians will be able to better understand their financial health position; that is how much debt they have versus how much income they get. Planning for their future goals or setting their savings and spending goals would then be easier.
- *Financial behavior analytics and monitoring*
Benefit: by having access to customers' transactional history, managing day to day spending becomes much easier. Financial budgeting and personal finance management would become more efficient because customers would know how much exactly they spend on each shopping category. Also, by using AI tools, customers will get notifications if they top or near their spending limits, and their banking application can recommend alternatives that are cheaper or better fit their needs. For example, I want to buy a new blender for my kitchen, I go to Walmart and the product I choose goes over my budget by \$50, my bank account will then notify me that buying this product will go over my spending limit, and recommends to me to check out that deal at Costco which is still fulfill my product needs but at the same time is within my spending limit.
- *Automation and Payment Requests*
Benefit: Automating payment, after requesting the customers' consent, would facilitate the process of bill payments. The current service used prompts the customer to choose their payee (or add them if they are new payees) and enter their information, then specify the amount the need to pay, from which account and then the method of notifying them. This process, although fairly easy, can be made much more efficient. By having a full picture of the monthly bills a customer pays, automating these payments would be more efficient and more convenient for customers.
Another benefit is the payment requests directly initiated from third parties to customers' bank accounts, without the need for third parties like credit card providers. Removing this need for intermediaries to execute the payment would save Canadians a lot of money annually. There would be no need to pay for credit card fees or overcharges as third parties would directly access the customer's bank account. Shopping online is made easier this way, and also safer in terms of data privacy and security as third parties would not need to store the customers' account information. This is referred to as screen scraping and is the current practice used to execute payments online.

- *Product and Service Recommendations*
Benefit: Banks could partner with other companies, through data monetization models, to convert real-time data they get from customers into products and services that would fit customers' needs. These products could be banking related products or tools such as personal budgeting tools or non-financial products such as product deals in grocery stores, shopping deals, flight deals, etc.
- *More transparent customer information such as Credit Scoring*
Benefits: Open Banking could help banks build more trust with their customers. Many Canadians do not know about the credit scoring process. 55% of millennials, 58% of Gen-Xers and 64% of baby boomers do not know their credit score, according to Digital Money Report published in 2016 ("Digital Money Trend Report", 2016). Banks could give customers real-time insights about how their credit scores would be affected if they made certain purchases or repaid their debt at a certain date. Doing this improves the perception of customers' about banks' desire to help their customer improve their financial life.

Question 2: 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?

Open Banking brings numerous benefits to Canadians through the additional and personalized offerings that will be available to them, if they choose to share their data with third parties. However, this proposition comes with significant risks, mainly around the extent of use of shared data. In my research, I wanted to gauge the adoption of this new system by millennials, so I've talked to many students about the concept of Open Banking and whether they would be willing to share their data, and in return get better services. The majority of those surveyed said they are not willing to do so, even if they get faster and better service. The average age of students I spoke to was 23. Broadly speaking, Open Banking allows third parties to have access to customers' data, often more than one year's worth of transaction history, to extract meaningful insights about the customer. Access to such large amount of data gives the seller of the service or product more power over the consumer, since they know what they have been able to afford and what they will be able to afford in the future. Also, there is a risk of exposing behavioral biases in consumer habits, which can be easily exploited by companies to sell their products and services. Customers may be forced into financial and digital inclusion in order to continue being provided the products and services they need. This risk is further down the line as Open Banking implementation progresses, as third parties would offer their services at zero or low cost to incentivize customers to adopt the technology ("Open Banking, A Consumer Perspective, 2019). Customers would become producers of data instead of owners and sellers of their own data. Banks have been the sole custodians of customer data for decades. With Open Banking as a model, a new revenue stream exists whereby banks can monetize the data that sits static on the servers, and sell it through subscription-based models to third parties such as fintech firms. This model of data monetization has been circulating consultancy reports like EY ("Different strategies towards Open Banking", 2019) and Deloitte ("Future of Banking: Digital and Regulatory", 2017) for the past two years. Would banks be willing to publish information about their subscribers and what data are they given access to or would this information be considered confidential and therefore not disclosed? Another concern about Open Banking from customers' perspective is data integrity and ethics. If consumers choose to share their data with third parties to get deeper insights into their financial health and spending patterns, how far can artificial intelligence go into mining for behavioral patterns and biases in consumer spending? Drawing the line between data that can be useful to personalize the consumer's banking experience versus data that goes deep into a consumer's privacy and is considered ethical is obligatory before we move forward with Open Banking.

So far, risks mentioned about open banking can be primarily summarized in one theme that is consumer data protection. This includes but is not limited to data privacy, data security, data integrity and ethics. The Canadian policy and law makers should ensure that these topics are addressed thoroughly when drafting regulations for Open Data (and later Open Banking). After this has been done, these laws should be communicated to customers through the use of social media and other banks marketing channels. The key to reduce these risks is to communicate these laws to customers. Financial education, coming directly from the government, would boost trust of Canadians in the open banking system. Canadians should realize that this model is customer-centric and prior to deploying the system, their concerns have been properly addressed. The government should also promote the idea of personal data

inventory, where Canadians would get an overview of what data each company has on them, what is the extent of its use and how far back it goes. Before agreeing to share their data, Canadians should understand what information can be extracted from this data they are sharing.

In the UK, after third parties are approved by the Financial Conduct Authority for roles they wish to perform (whether it is read or write requests), they obtain licenses to register on the Central Directory of Open Banking, overseen by the Open Banking Implementation Entity ("Open Banking Guidelines for Read/Write Participants", 2018). This process ensures that only third parties approved by regulatory bodies would have access to Canadians' data. Setting the technical API standards that third parties should abide by if they wish to register on the Open Banking directory should be left for the market to decide, with regulatory bodies overseeing the process to ensure that it's safe and secure, and aligns with data protection standards. Banks and government should work together to sponsor public incubators, competitions and hackathons that brings that best minds in software development to develop APIs that meet data standards set by the government.

Question 3: 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?

- ***Hybrid Models- UK versus USA***

Regulators in Canada have been doing an outstanding job ensuring the safety and soundness of our financial system. There exists a strong communication channel between banks and regulators that ensures the interests of banks, consumers and regulators are aligned. Regulators in Canada should take an active role in the implementation of Open Banking into our financial system. Rather than imposing standards for Open Banking as the UK and EU did, or leaving it open for the market to decide when to implement open banking which is the model adopted by United States ("A Financial System That Creates Economic Opportunities Nonbank Financials, Fintech, and Innovation", 2018), Canada should come up with a hybrid model which ensures standards are market-driven so banks use what works best for them but at the same time have strict laws and regulations that protect the use Open Data and avoid customer exploitation. Although a sandbox environment is essential for fintech startups to grow and thrive, a similar concept is not necessary for large banks in Canada such as RBC, TD, BMO, etc. Some of these banks are already experimenting with open banking apps, so the real important step Canadian regulators should take is drafting data privacy standards and laws before implementing this system.

- ***Big Tech versus Fintech Data Standards***

In the context of Open Banking, third parties can be fintech companies or bigtech companies such as Amazon, Google, Apple, Facebook, etc. Whether these two categories partner together or they do not, different standards should exist for financial data versus online activity data whether it is social media or shopping activity. Regulators should recognize that these two types of data are significantly different in terms of privacy, security and extent of usage. Separation of these two types will improve the understanding of the extent of sharing from the consumer perspective, and help banks set up standards that recognize these differences.

- ***A Canadian MiData Initiative***

The gradual implementation of Open Banking is highly recommended. The government should start with the implementation of Open Data, data that is not necessarily confidential but can help Canadians understand how opening up their data to sharing would bring them a plethora of personalized products and services. For example, in the UK in 2011, an initiative for Open Data called Midata was introduced. Midata was a voluntary initiative in the retail banking, telecom and energy industries, with 26 participating companies including Visa, Lloyds bank and Google, in collaboration with the government to push the concept of Open data into the economy. ("midata' is coming - what will your business do with it?", 2013) Lloyds bank enabled access to personal current and credit card accounts using a tool called Money Manager. This service, which was free, helped customers better organize their spending into categories and manage their spending to fulfil their savings and spending goals. Tesco, a large supermarket chain in the UK allowed customers to purchase their 50 most frequently purchased items, through a

tool called My Usuals. These are two among many other case studies that used the midata initiative and there are a lot of lessons learnt from such cases. The implementation of this initiative helped customers realize the benefits of services they can get if they consent to sharing their data with third party providers. It also helped improve the perception of companies not focusing on selling their products but rather they focus on helping customers through better service offerings. Also, customers in the UK became more comfortable with the idea of sharing their data, which set the stage for further sharing in the Open Banking system. Such initiative could prove a catalyst for faster adoption of open banking, if customers truly realize the value of that concept of data sharing.

- ***Revision of Data Privacy Act***

The Data Privacy Act should be revised to be up to date with the concept of Open Data or data-driven economy. Specifically, it should allow data portability and sharing among third parties and banks, subject to certain definitions of what constitutes sharing, the extent to which data can be shared, etc. Also, explicit consent should be defined such that third parties should request data every time it is required, rather than retaining information centrally. Additionally, principles of data portability in the context of data sharing such as transparency, access, control and transfer should be clearly defined in a way that ensures maximum protection to Canadians' private data ("Data Protection 2018 | Laws and Regulations | Canada | ICLG", 2018).

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