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# COULD ALBERTA ENACT A SUB-NATIONAL OPEN BANKING REGIME?

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# COULD ALBERTA ENACT A SUB-NATIONAL OPEN BANKING REGIME?

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## EXECUTIVE SUMMARY

Open banking is successfully operating, and has proved beneficial, in many countries. But Canada has not yet adopted it. Alberta doesn't need to wait for the federal government to implement a national framework to benefit from this innovation.

Using international precedent, this article charts a pragmatic course for how the province can immediately participate in the benefits of open banking, open finance, and consumer data portability, without requiring a complex sub-national regulatory and governance structure like the federal approach or expending scarce provincial policy resources.

Using a market-facilitative approach, the province can utilize existing initiatives to take an accommodative and active advisory role to data portability use case development, foster market-driven use cases and industry partnerships through the *Financial Innovation Act* (FIA) regulatory sandbox, and utilize the existing *Invest Alberta Financial Services Concierge* to reduce frictions and barriers to market entry for data portability firms and open finance entrepreneurs.

Open banking creates a safer underlying ecosystem to share consumer financial data, develop data applications and new technology-driven financial products and services in a more secure way than screen scraping. This innovation promotes competition, enhances consumer product comparisons, lowers switching and transaction costs, creates new efficiencies, and allows financial product and service providers to tailor new customer offerings to individual needs.

The federal open banking framework still has many implementation barriers, uncertainties, and frictions. Alberta can immediately develop expertise in consumer data portability by using the provincial regulatory sandbox established by the FIA. The FIA is a one of a kind initiative in Canada. The FIA sandbox allows banks and fintech companies to develop and test data portability use cases under supervised parameters with regulatory relief. Provincial regulatory authorities can review the risks and benefits in real time, with real data.

The province can potentially leapfrog the national framework by developing expertise through the FIA sandbox in data portability use cases beyond banking and relating to a financial product or service (the defined legislative scope of the FIA). Technological development and applications, fostered through the FIA, may have use value beyond

banking and within a larger financial ecosystem, as well as in energy, utilities, consumer retail data, government housed data and self-sovereign digital identity solutions.

The province can take three immediate steps under a market-facilitative approach. First, engage in public-facing educational efforts on the benefits, use-cases, processes, accessibility, functionality, and successes of the FIA sandbox as applied to data portability. This may include developing principles for safe data sharing, and recommended design standards and guidance. Second, in conjunction with the FIA, utilize and promote the Invest Alberta Financial Services Concierge service as a gateway to open banking partnerships and the FIA sandbox. Third, investigate how to create and implement a provincial consumer data right (CDR), which would serve as a catalyst in the province for a myriad of data-portability use cases beyond banking to an open-data paradigm, including applications in energy, investments, insurance, utilities, telecommunications, consumer retail and self-sovereign digital identify.

## **I. INTRODUCTION**

A significant amount of regulatory, industry and media attention has been directed recently towards a financial data-sharing framework called open banking (Koepl and Kronick 2020). Broadly speaking, open banking facilitates the safe, supervised, and consensual sharing of consumer and business data with third-party service providers, like financial technology (fintech) firms, for use in new financial applications, products, and services (Barr 2021). Open banking could disrupt the monopoly that financial institutions have on consumer financial data, while providing significant benefits. Canada has not yet, however, formalized a national open banking framework, despite regimes existing in other countries for several years. Contributing to formation delays are an uncertain banking industry impact, concerns about necessary privacy legal reform and a diverse and nuanced menu of design, operational and implementation considerations, and potential regulatory frameworks (Rahnama 2021; Barr 2021).

A presumption is that Alberta should wait for the formation of a national framework, rather than expending scarce policy resources to foster open banking on a sub-national level. This article contests this assumption and advances a vision for a provincial open banking policy strategy — independent of the federal framework. In support of this vision, the article first establishes the conceptual and empirical economic benefits from open banking. It then outlines numerous frictions in the formation of a national framework, including uncertainties relating to provincial financial institution participation, which support the province investigating a sub-national approach. It then canvasses a variety of international precedents to open banking adoption and assesses the positive elements and integration frictions in diverse approaches. It concludes by presenting a pragmatic and informed perspective on open banking policy formation in Alberta — a market facilitative approach — that doesn't rely on the ex-ante crystallization of a federal framework or require a significant expenditure of policy resources, additional legislative action, a complex sub-national regulatory architecture, or the formation of additional governance bodies.

A top-down open banking regulatory framework, mirroring what's contemplated by the federal government, requires a complex regulatory and supervisory scaffolding. Replicating these structures at a provincial level, including technology standardization, accreditation, oversight and operational considerations, rule formation for liability assignment and enforcement, cyber-security, and privacy protection, will likely create similar implementation delays and frictions that the federal government is experiencing. It may also fail to produce a critical mass of data to justify the increased supervisory costs, while increasing regulatory burden, deterring innovation, and stifling market entry if regulatory structures are too onerous.

Alberta can, however, participate in the benefits of open banking and safe data portability, without being tethered to the uncertain timeline of the federal government or instituting a complex open banking framework on its own, by promoting and using its recently instituted, and first-of-its kind, provincial financial regulatory sandbox pursuant to the *Financial Innovation Act* (FIA).<sup>1</sup> By using the FIA to its fullest extent, the province can adopt a market facilitative approach towards data portability that can immediately transcend banking and allow for data portability use case scenarios across the financial products and services ecosystem. In this regard, the province can take an active advisory, facilitative and educational role, encourage a market-driven framework and work to reduce barriers to entry for data portability entrepreneurship and frictions to industry partnerships.

The FIA could also serve as the foundational anchor for a market-driven innovation ecosystem in Alberta. It can facilitate low-friction, immediate open banking, and application programming interface (API), use case development without a significant expenditure of scarce provincial policy resources, additional legislative action, or privacy reform (or the risk of an adverse international privacy determination). Most importantly, it serves as an ideal low-friction testing site for data portability use cases that transcend banking (including investments, insurance, crypto-assets and other financial products and services) and fulfil the financial products and services legislative remit of the FIA. This will enhance the profile of the FIA sandbox and remove as many reasons as possible for a financial services participant not to locate their technical expertise in Alberta. It may also allow the province to leapfrog the national framework by developing expertise in a variety of open data portability use cases, which, over time, and in consideration of a provincial consumer data right (CDR), may extend to data portability use cases outside of finance.

To advance a market facilitative approach to open banking, the province should consider three immediate steps. First, engage in public-facing educational efforts, promotion, and transparency about the benefits of open banking and consumer data portability and the process, functionality, legislative remit (including financial products and services beyond traditional banking), operation and ongoing successes of the FIA sandbox. Efforts to promote the FIA sandbox should have specific content on how open banking and data portability use cases can be immediately tested in Alberta under accommodating but safe regulatory parameters. Second, use and promote the existing Invest Alberta Financial Concierge Service as a gateway to open banking partnerships and the FIA sandbox. Third, undertake further investigation into the steps needed, and resulting legal considerations, in creating a provincial CDR, which, if properly constructed, could serve as the fundamental

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<sup>1</sup> *Financial Innovation Act*, SA 2022, c F-13.2.

keystone of a broader open data economy, and use the technology ecosystem developed through the FIA to foster safe data portability applications beyond finance — into energy, utilities, consumer retail, government data and self-sovereign digital identity.

## II. WHAT IS OPEN BANKING AND WHY IS IT RELEVANT TO ALBERTA?

### A. DEFINING OPEN BANKING

There is no universal definition of open banking<sup>2</sup> and international models of adoption, academic scholarship and policy reports combine various features to construct a framework that allows banking customers to control their financial data and share it with third-party service providers, such as fintech firms, using standardized and interoperable technological processes combined with consumer liability safeguards such as legal accountability (and responsibility) for the third parties that receive and use this data (BIS 2019; Badour and Presta 2018; Fracassi and Magnuson 2021; Graef et al. 2018).<sup>3</sup> In 2019, the federal Department of Finance sought public consultation into the merits of open banking in Canada — describing it as “a framework where consumers and businesses can authorize third party financial service providers to access their financial transaction data, using secure online channels” without requiring a banking customer to reveal their online account login information (Department of Finance 2019).

The starting point for open banking is data access, and this can be provided by giving customers proprietary rights over their data or by creating a legal obligation for financial institutions to provide such data upon customer request (Awrey and Macey 2022). The access (and sharing) of consumer financial data is facilitated in a safe way through a secure data transfer technology (software) called an application programming interface (API), which can be designed with a consumer-focused, consent-based framework (Department of Finance 2019).<sup>4</sup> Data sharing is not new. It’s been done for several years now using a technology called screen scraping. Standardized open banking through APIs offers a safer, supervised, standardized, consensual and legally compliant data-sharing regime, with security safeguards and liability and recourse structures (Barr 2021). With open banking the data is portable by making it easy to transfer from one system to another and by using interoperable standards, protocols and formats (in theory, a plug-and-play mechanism for data porting and access) (Awrey and Macey 2022).

There are several different levels, or data access tiers, when assessing the implementation of an open banking framework. These are commonly described as read, write and move, respectively. Read access is the first and most common (even basic) level, where consumers share financial data with third parties who may only view or aggregate a copy of the data

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<sup>2</sup> See Alessandro Palmieri and Blerina Nazeraj, “Open Banking and Competition: An Intricate Relationship,” EU and Comparative Law Issues and Challenges Series (ECLIC), vol. 5, 217, 2021; and Buckley et al., 2022.

<sup>3</sup> Compare Retail Banking Market Investigation Order 2017 (U.Kk) (CMA Investigation Order); Payment Services Regulation 2017 (U.K.) (U.K. PSR); Directive 2015/2366/EU of the European Parliament and of the Council of 25 November 2015 on Payment Services in the Internal Market, amending Directives 2002/65/EC, 2009/110/EC, and 2013/36/EU and Regulation (EU) No 1093/2010 and repealing Directive 2007/64/EC OJ L 337/35 (EU PSD2); Competition and Consumer (Consumer Data Right) Rules 2020 (Australia CDR Rules); *Treasury Laws Amendment (Consumer Data Right) Act 2019* (Cth) (Australia CDR Act).

<sup>4</sup> See Barr and Morris (2019).

and not “manipulate, make changes to, or update that data” (Barr 2021).<sup>5</sup> Write access goes a step further, allowing for third-party firms to alter or write over the data — an action needed to initiate a funds transfer or payments activity on a consumer’s behalf. Finally, move access allows third parties to port a consumer’s data to a different institution to facilitate a new account opening (or switch an account to a different bank or financial institution) (Barr 2021). In its April 2021 final report, the federal government’s Advisory Committee on Open Banking recommended limiting third-party fintech and financial firms to read access initially, with write access being a consideration “once the system is in place and operating well” (Government of Canada 2021).

## B. CONCEPTUAL ECONOMIC BENEFITS AND CONSUMER WELFARE GAINS

In terms of financial consumer welfare, data has value-creation utility in the digital economy (some even describe data as a new oil) which might serve as an engine to power consumer financial welfare through new products, services and even industries.<sup>6</sup> The move towards standardized open banking is conceptually driven both by consumer demand (recognizing uncompetitive banking markets and significant barriers to entry for new financial service providers and fintech firms) and a desire for enhanced consumer protections. Open banking also serves several policy goals including spurring innovation, increasing competition and fostering financial industry and market growth (Barr 2021).

Competition may be enhanced through open banking because unlocked data are a valuable operating resource that can reduce barriers to entry for new firms wanting to use these data to provide novel customer offerings (Liu 2021). Further, efficiency may be enhanced by lowering financial consumer transaction costs and facilitating streamlined data transfer mechanisms, which increases the speed of credit approvals and account opening and lowers the costs of consumer account switching.<sup>7</sup> Reducing consumer switching costs is a commonly cited justification in support of implementing an open banking regime.<sup>8</sup> Open banking is also cited as having the potential to improve financial services in industry segments where incumbent firms are underserving the market or inefficient in their offerings, such as thin credit files, global remittances, real-time payments, small business credit and democratized wealth management services.<sup>9</sup>

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<sup>5</sup> The type of data is also structured at the read access level including chequing, savings, credit or wealth management and investment data.

<sup>6</sup> New products could include tailored low-value loans like public transit loans for lump sum annual payments to save costs on monthly transit pass expenditures.

<sup>7</sup> See BIS (2019), 4, 8–10, 15–16; Australian Government, “Data Availability and Use,” Productivity Commission Inquiry Report, No. 82, March 31, 2017, 567 suggesting that data sharing “would almost certainly” promote efficiency with consumer benefits.

<sup>8</sup> See Michael McKee, Chris Whitaker and Neil Millar, “PSD2 and Open Banking: Rewiring the Plumbing of the European Payments Ecosystem,” *Journal of International Banking Law and Regulation*, vol. 35, issue 3, 2020, 85. Also see Giuseppe Colangelo and Oscar Borgogno, “Data, Innovation and Competition in Finance: The Case of the Access to Account Rule,” *European Business Law Review*, vol. 31, issue 4, 2020, 573.

<sup>9</sup> See Thomas Philippon, “Finance, Productivity, and Distribution,” *Global Economy and Development at Brookings*, October 2016, <https://www.brookings.edu/wp-content/uploads/2018/01/philippon-october-2016.pdf>.



## C. THE CREATION OF NEW FINANCIAL PRODUCTS AND SERVICES

Open banking leads to new financial products and services, and there is evidence to support this assertion. The Australian government, in a 2022 strategic assessment report of its consumer data right-based (CDR) open banking regime, identified that the CDR has led to the creation of diverse new financial products and services for consumers including “budgeting, bill payment and financial management apps, streamlined credit approval processes, the creation of in-depth financial overviews to assist consumers on their home-buying journey, and the use of financial transaction data combined with COVID location data to alert a consumer if they have been to a COVID hotspot” (Australian Government 2022).

Also, data currently housed at banks and other financial firms could facilitate new credit and banking products at lower costs and provide other products or services, like financial account information aggregation and consolidation services (Barr 2021),<sup>10</sup> diverse budgeting and money management applications, faster and seamless payment applications, bespoke and personalized financial services, novel credit files using transaction history for thin credit applications or new residents of Canada, enhanced investment and wealth management opportunities, faster loan approvals and account assistant functions for seniors (Department of Finance 2019).<sup>11</sup> Open banking may also facilitate better analytics (like money management), credit, investment and wealth management advice and back-end administrative process and regulatory efficiencies, including anti-money laundering compliance (Barr 2021).

Open banking also has potential utility for financial institutions to leverage their brands and offer new financial services while using a more complete picture of their customer’s financial profile (as consumers often have accounts at multiple institutions). It could also foster financial inclusion benefits including lower cost payment and remittance services, financial education and literacy tools, lower cost banking options and accounts, enhanced transparency for customers, more accessible wealth management and financial advice services for marginalized individuals or those with variable incomes. There are also potential benefits for businesses, such as lowered compliance burdens (particularly around obtaining client verification and know-your-client (KYC) data), regulatory data reporting, automation of cash flows, invoices and aggregation services for accounting and auditing and allowing for “easier and deeper operational insight” (Department of Finance 2019).

## D. OPEN BANKING AS A SAFE RESPONSE TO SCREEN SCRAPING

Open banking can be conceptualized as a safer underlying ecosystem where data can be shared in a more secure way than so-called screen scraping, and this may increase fintech entrepreneurship and investment capital formation. Consumer data are commonly shared today with third-party vendors, fintech firms and service providers without a formal or regulated open banking framework, using an unsafe and legally problematic process called screen scraping. With screen scraping, consumers share their banking login information with third parties (like fintech firms and data aggregators) who then impersonate the client and extract relevant transaction and financial data. Screen scraping creates

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<sup>10</sup> These applications allow consumers to view all their financial information in one location potentially allowing for better and more accurate financial decision-making.

<sup>11</sup> See BIS (2019), 4, 8-10, 15-16.



numerous vulnerabilities including increased identify theft, fraud and cyber-security risk. It may also violate the terms of many online banking agreements (Senate 2019).

In a 2019 report, the Standing Senate Committee on Banking, Trade and Commerce advocated for enhanced regulatory scrutiny, consumer risk disclosure and education, complaint resolution and formal oversight of screen scraping by the Financial Consumer Agency of Canada (FCAC) (Senate 2019). With open banking, user login credentials stay confidential, consent is necessary (and can be revoked) and data are accessed through secure APIs (Koeppel and Kronick 2020). A lack of an open banking regime in Canada perpetuates the status quo and the use of screen scraping as a consumer financial data-sharing mechanism.<sup>12</sup>

## E. EMPIRICAL STUDIES AND SURVEY DATA ON ECONOMIC BENEFITS OF OPEN BANKING

Canada has not implemented a regulated open banking framework. Various open banking designs have been implemented internationally, however, which reflect diverse and strategic contextual, competition and industry considerations. Frameworks exist in the United Kingdom,<sup>13</sup> European Union,<sup>14</sup> Australia,<sup>15</sup> Japan,<sup>16</sup> Brazil<sup>17</sup> and Singapore.<sup>18</sup> The U.S. has not yet adopted a formal regulated open banking framework and has deferred to a market-based approach (with banks and fintechs engaging in partnerships for the bespoke creation and use of API technology and safe data sharing) (Department of Finance 2019; Barr and Morris 2019).

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<sup>12</sup> See Geoff Zochodne, "Lack of Open Banking Framework Forcing Canadian Consumers to Choose Between Convenience and Security, TD Exec Says," *Financial Post*, November 5, 2019, <https://financialpost.com/business/lack-of-open-banking-framework-forcing-canadian-consumers-to-choose-between-convenience-and-security-td-exec-says>. Also see Financial Consumer Agency of Canada, "Open Banking Review: FCAC Submission to the Advisory Committee on Open Banking," <https://www.canada.ca/en/financial-consumer-agency/corporate/publications/open-banking-fcac-comments.html>.

<sup>13</sup> See Department of Finance (2019). The United Kingdom (U.K.), in January 2018, implemented a government-led initiative for data sharing for chequing accounts and payments initiation. Data sharing was initiated by a mandate from the U.K. Competition and Markets Authority for the nine largest U.K. banks, under an open API framework with common technical standards (established by industry stakeholders) for efficiency and fair access. An industry-led, new, not-for-profit entity, the Open Banking Implementation Entity (OBIE), was created with responsibility for open banking implementation, ensuring customer consent, operations and consumer protection, including complaints and consumer disputes. Third parties, such as fintech firms, must be authorized by the U.K.'s Financial Conduct Authority to participate in the framework. Also, European Union (EU) General Data Protection Regulation (GDPR) rules apply to privacy and data usage.

<sup>14</sup> Ibid. The EU rollout of open banking was catalyzed by the Second Payment Services Directive (PSD2), which required "large banks to open up access to account data and payment initiation without prescribing a standard API." It came into effect on January 13, 2016 and includes mandatory bank participation, prohibition of contractual barriers to entry for new firms and regulated technical standards. The GDPR enhances consumer protections under the PSD2 framework, which came into force May 2018, which overlaid data portability and consumer protections, including explicit consent obligations and legal requirements on organizations that access or obtain consumer data.

<sup>15</sup> Ibid. The Australian open banking regime is part of a broader consumer data right that starts in banking and will eventually extend to other industries including energy and telecommunications. The initial rollout included data access only (no payments initiation) under a phased implementation schedule starting with credit, debit and deposit transactions in July 2019 and moving to credit and mortgages in 2020. The framework is regulated by the Australian Competition and Consumer Commission.

<sup>16</sup> Ibid. Japan has a unique regulated opt-in system with the imposition of defined requirements for those firms who choose to participate in the system. It was announced in 2017, operates under the supervision of Japan's Financial Services Agency and Financial Systems Council and includes both data sharing and payment initiation under numerous open API structures.

<sup>17</sup> See Barr (2021), 12. Brazil implemented read-only access in November 2020.

<sup>18</sup> See BIS (2019), 11. While many elements of the Singapore regime facilitate a market-driven approach to open banking, there is API standardization with regulated oversight. Also see Barr (2021), 12. Currently, Singapore has a read-only scope with write access under consideration.

Given the current operation of diverse international implementation models, several recent empirical studies and survey-based data on these experiences are instructive as to the real economic benefits of open banking. Given the relatively nascent emergence of open banking as a regulatory paradigm, empirical studies, for the most part, have been slow to materialize and further research in this area is warranted. There are, however, several recent studies and emerging data which provide positive support and evidence that open banking yields real economic benefits.

First, there is empirical evidence, based on Australian data, of strong consumer demand for open banking driven by performance expectancy and social influence (Chan et al. 2022). The sheer number of open banking adopters throughout the world puts significant pressure on Canadian banks and financial institutions to adopt some form of safe data sharing, as the country otherwise risks falling further behind in both consumer open banking adoption as well as fintech firm development (Marotta 2021). In 2022, open banking in the U.K. surpassed the five million user mark (NCFA Canada 2022). In South Korea, there were 30 million users and 100 million open banking accounts within two years of adoption (UBC Sauder 2022).

Consumer demand for open banking is also driven by money saved on account switching costs (Borgogno and Colangelo 2020),<sup>19</sup> which were recently estimated in the U.K. as up to £70 per year per banking consumer (Plaid Staff 2017). Empirical studies have shown that switching costs impede competition in financial services (Van der Crujisen and Diepstraten 2017; Ausubel 1991; Stango 2002). Survey data from European financial and banking executives, based on their experience with open banking to date, also reveal financial institution benefits, with 74 per cent of respondents noting increased payment security and fraud mitigation as key benefits of open banking and 70 per cent also identifying the ability for instant transfers (Fintech Global 2022).

Notably, there is emerging empirical evidence that open banking increases fintech venture capital investing (Babina et al. 2022). This is a particularly important consideration given Alberta's desire to establish a diversified technology ecosystem.<sup>20</sup> A 2022 empirical study, conducted by researchers from Stanford, Columbia and the University of British Columbia found that fintech venture capital investment increased by 50 per cent after a country adopted an open banking regulatory framework (Babina et al. 2022; Columbia Business School 2022). In this study, the authors collected and analyzed data from 168 countries, noting that governments in 49 countries had adopted open banking policies, with 31 in active discussion. The authors, using a novel dataset called an OB Strength Index, measured how the open banking policies impacted venture capital deals between 2010 to 2021 and found that, in addition to a 50 per cent increase in venture investing in adopting countries, those countries with more comprehensive policies had even larger venture capital investment impacts (Babina et al. 2022).

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<sup>19</sup> See Awrey and Macey (2022), 22: "Switching costs are incurred by customers in the process of moving their bank accounts, loans, investments, or other financial products and services from one financial institution to another."

<sup>20</sup> See Alberta Tech Ecosystem, accessed July 5, 2022, <https://ecosystem.startalberta.ca/intro>.

Empirical research has also revealed that fintech lending (which theoretical models suggest increases in an open banking regime) (He et al. 2020) provides advantages in origination efficiency, including faster loan processing and responsiveness to changes in borrowing demand (Fuster et al. 2019). Other empirical studies note that digital footprints can complement traditional credit scores and aid in predicting consumer defaults (Berg et al. 2020), and such data are made accessible and portable under an open banking framework. Further, economists at the Bank for International Settlements (BIS) have shown that credit scoring based on machine learning (commonly deployed by fintech credit providers using portable data in an open banking regime) improves default prediction compared to traditional credit scoring (Gambacorta et al. 2019).

## F. DERIVED BENEFITS FROM A STRENGTHENED TECHNOLOGY ECOSYSTEM

Open banking contemplates the safe sharing and use of data across financial institutions and service providers, with resulting consumer and economic benefits, positive job growth, capital formation for new fintech startups and foreign investment growth.<sup>21</sup> Enhanced access to data could foster innovation in both incumbent financial institution operations and new entrepreneurial enterprises, allowing for an optimized data usage environment.<sup>22</sup> Indirectly, it may help to expedite the adoption of new digital infrastructure into the current operating ecosystem of financial firms, which could aid in the development of technological expertise, consumer trust, cyber-security and privacy safeguards in advance of the national roll-out of open banking in Canada, and the trend towards open data regimes globally (Duus and Cooray 2016).

Enhanced data access could also stimulate complementary innovations and partnerships (particularly in artificial intelligence and machine learning) and leverage the province's existing strengths in these areas.<sup>23</sup> New internship opportunities could be created which attract students to Alberta's universities to participate in a wider open data economy. It may also improve government efficiency by creating safer access rails for data that can be used in non-financial applications and create efficiencies across financial agencies, as well as identify areas for further regulatory burden reduction (Duus and Cooray 2016).

Evolving from, or collaterally to, the formation of an open banking (or open finance) paradigm could be the establishment of an Alberta-based self-sovereign digital identity (SSDI) framework.<sup>24</sup> An SSDI framework would enhance the privacy and consent protections for any open banking regime.<sup>25</sup> It could also be used to improve tax collection, travel and vaccine verification and the delivery of other government services like passports, and may also use permissioned blockchain technology (Barr 2021). An SSDI could help

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<sup>21</sup> See Open Banking Initiative Canada, "Manifest," April 2021, <https://obicanada.ca/wp-content/uploads/2021/03/OBIC-Manifesto-OpenBanking.pdf>.

<sup>22</sup> Ibid., 70.

<sup>23</sup> See Deloitte, "Open Banking. What Does It Mean for Analytics and AI?" September 2018, <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/financial-services/deloitte-au-fs-open-banking-analytics-ai-060918.pdf>.

<sup>24</sup> The foundational idea underpinning an SSDI is that individuals gain full control, usually through the use of distributed ledger technology (blockchain), over their digital identity. They can then use their digital identification, with full discretion and control, for a variety of digital services. See Satoru Hori, "Self-sovereign Identity: The Future of Personal Data Ownership?" World Economic Forum, August 12, 2021, <https://www.weforum.org/agenda/2021/08/self-sovereign-identity-future-personal-data-ownership/>.

<sup>25</sup> An SSDI "would permit secure and standardized processes for authenticating the identity of a consumer who has requested their data be shared" (Barr 2021).

smaller financial institutions, such as credit unions, to comply with know-your-client (KYC) and anti-money laundering (AML) requirements (Barr and Morris 2019).

### **G. ALIGNMENT WITH REGULATORY GOALS OF EFFICIENCY AND FINANCIAL STABILITY**

The previous subsections have highlighted the conceptual, empirical and derived economic benefits of open banking, including greater fintech venture capital investment, lowered barriers to entry for fintech entrepreneurs, increased product and service choice and lowered frictions for consumer switching. These benefits support policy goals of economic efficiency, competition stimulation and innovation support. Financial regulation also has policy goals of consumer protection, prudential safeguards of key firms and system-wide stability measures.<sup>26</sup> These are also supported under an open banking framework. In terms of consumer protection, an open banking regime fosters the safe sharing of consumer data under standardized parameters with access controls, liability assignments and consumer redress mechanisms (Koepl and Kronick 2020).

Open banking can also aid in financial stability by allowing banks and lenders a more complete consumer financial profile — facilitating more accurate credit risk assessments.<sup>27</sup> It also potentially increases financial stability by lowering concentration risk in the financial sector (and working to reduce the footprint of too-big-to-fail banks), while increasing competition and consumer choice. With more banks and financial service providers, the total economic fallout consequences of a single firm's failure are significantly decreased (Awrey and Macey 2022).

## **III. CANADIAN FEDERAL OPEN BANKING IMPLEMENTATION AND DRAWBACKS**

As noted above, despite the benefits of open banking, there is a presumption that Alberta should simply wait until the federal open banking framework is crystallized before taking steps to foster open banking in the province. This section will show why that strategy is risky given significant implementation frictions, delays and uncertainties in the national framework, including uncertainties that it creates for Alberta-based financial institutions. It also assesses the factors that still stand in the way of the formation of a national regime. These factors serve as an impetus for Alberta to evaluate how it can participate in the benefits of open banking right now using international precedent as a guide, which will be presented in section IV, followed by recommendations in section V.

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<sup>26</sup> See John Armour, Dan Awrey, Paul Davies, Luca Enriques, Jeffrey N. Gordon, Colin Mayer and Jennifer Payne, "The Goals and Strategies of Financial Regulation," Oxford Scholarship Online, 2016.

<sup>27</sup> See Khadra Mohamed, "Open Banking: Customer-centered Financial Services?" *UCL Finance and Technology Review*, August 31, 2021, <https://www.uclfr.com/post/open-banking-customer-centred-financial-services>.

## **A. ORIGINS AND THE CANADIAN DIGITAL CHARTER**

Momentum for a regulated open banking framework in Canada traces its origins to the federal government's 2018 Digital Charter initiative and consultation process.<sup>28</sup> The Digital Charter contemplates a digital world where Canadians can trust that “their privacy is protected, that their data will not be misused, and that companies operating in this space communicate in a simple and straightforward manner” (ISED 2018). Such a vision is guided by 10 principles: universal access; safety and security; control and consent; transparency; portability and interoperability; open and modern digital government; a level playing field; data and digital for good, strong democracy free from hate and violent extremism; strong enforcement; and real accountability (ISED 2018). The portability component has catalyzed policy formation around open banking, with a critical consideration being that data are made portable across the nation.

## **B. FEDERAL CONSULTATIONS, PUBLIC AND STAKEHOLDER INPUT**

In its 2018 budget, the federal government announced its forthcoming review into open banking, and as a first step the minister of Finance appointed an Advisory Committee on Open Banking to manage the review (supported by a secretariat with the Department of Finance) (Government of Canada 2020). Consultations began in early 2019 (Department of Finance 2019). The Advisory Committee and Department of Finance received over 100 written submissions and engaged in numerous domestic and international stakeholder and roundtable discussions, culminating in a 2020 follow-up report that advocated for the term “open banking” to be replaced with “consumer-directed finance” (Government of Canada 2020). In this report, the Department of Finance also identified that there “was alignment among stakeholders” that the government had a role to play in the ecosystem of safe data sharing, including defining an accreditation process and ensuring fairness for participants (Government of Canada 2020).

The 2020 follow-up report agreed that consumer-directed finance in the form of safe data sharing could improve financial outcomes for Canadians, including better rates for financial products, ease of opening and switching accounts, enhanced credit opportunities for individuals and businesses, efficiencies in small business management, data and account aggregation services, tools to help improve financial health, including for consumers with thin credit files, and efficiencies for government reporting and automated regulatory compliance. This report acknowledged the widespread use of unsafe screen scraping for data transfers as a technological workaround of online banking account agreements. The report suggested that consumer-directed finance through regulated APIs could lead to safer data-sharing options, provided key risks relating to consumer protection, privacy and cyber-security were mitigated and data access parameters were defined, consent and consumer controls were in place and clear liability and dispute resolutions mechanisms existed (Government of Canada 2020).

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<sup>28</sup> See Innovation, Science and Economic Development Canada, “Canada’s Digital Charter in Action: A Plan by Canadian for Canadians,” 2018, [https://www.ic.gc.ca/eic/site/O62.nsf/eng/h\\_00109.html](https://www.ic.gc.ca/eic/site/O62.nsf/eng/h_00109.html).

### C. ADVISORY COMMITTEE FINAL REPORT, APRIL 2021

The Advisory Committee on Open Banking submitted its final report and recommendations to the federal government in April 2021 (released publicly in August 2021) outlining a framework and implementation vision for regulated open banking in Canada. The report outlined six key consumer outcomes<sup>29</sup> and three core foundational elements<sup>30</sup> which together would usher in a new regulatory paradigm for the safe sharing of data and eliminate screen scraping altogether (Government of Canada 2021).<sup>31</sup> The final report was a positive step in what has otherwise been an extended, and in many ways frustrating, period of public consultations and assessment.<sup>32</sup>

The report outlined a highly consumer-centric vision for data access, portability and use, including provisions of express consent and significant consumer protections for data misuse and liability allocation. There were liability carve-outs for derived data – recognizing the need to provide a fair concession to the proprietary measures enacted (and costs incurred) by financial incumbents who have used existing data to enhance consumer product and service offerings. It also contemplated the need for the open data-sharing paradigm to expand and evolve in the medium and long term to encompass data sharing in the telecom and energy utility sectors. It also recommended a reciprocal data access element that would require accredited participants (third-party service providers) to release consumer-permissioned data mobility requests by financial institutions (Government of Canada 2021).

The final report recommended mandatory participation for federally regulated banks and design considerations, accommodations and prioritized access for business account holders in phase one (Government of Canada 2021). It also contemplated integration with Bill C-11 (*Consumer Privacy Protection Act*), which completed a first reading on November 17, 2020,<sup>33</sup> as well as current initiatives relating to payments modernization and retail payments oversight.<sup>34</sup> Finally, the final report advocated for a technical structure

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<sup>29</sup> “Six key consumer outcomes should guide this vision and provide the basis for an open banking system in Canada: Consumer data is protected; Consumers are in control of their data; Consumers receive access to a wider range of useful, competitive and consumer friendly financial services; Consumers have reliable, consistent access to services; Consumers have recourse when issues arise; and Consumers benefit from consistent consumer protection and market conduct standards” (Government of Canada 2021).

<sup>30</sup> “A hybrid, made-in-Canada open banking system should have the following core foundational elements: 1. Common rules for open banking industry participants to ensure consumers are protected and liability rests with the party at fault; 2. An accreditation framework and process to allow third party service providers to enter an open banking system; and 3. Technical specifications that allow for safe and efficient data transfer and serve the established policy objectives” (Government of Canada 2021).

<sup>31</sup> The report was consistent with the widely held view that screen scraping presents significant cyber-security, data protection, privacy and liability risks and likely breaches banking user agreements by sharing banking login credentials (Government of Canada 2021). See also James Bradshaw and Vanmala Subramaniam, “Report Recommends New Open Banking Regime for Canada to Allow Customers to Share Data Between Institutions,” *Globe and Mail*, August 4, 2021, <https://www.theglobeandmail.com/business/article-report-recommends-new-open-banking-regime-for-canada-to-allow/>.

<sup>32</sup> See Geoff Zochodne, “Slow Progress on Open Banking Putting Canada Further Behind, Observers Warn,” *Financial Post*, June 4, 2019, <https://financialpost.com/news/fp-street/slow-progress-on-open-banking-putting-canada-further-behind-observers-warn>; Rahnama (2021); Kelsey Rolfe, “Fintech Startups Frustrated with Glacial Pace of Canada’s Open Banking Consultations,” *Betakit*, May 5, 2021, <https://betakit.com/fintech-startups-frustrated-with-glacial-pace-of-canadas-open-banking-consultations/>; and Cindy Baker, “Canada Urged to Speed up Open Banking,” *IT World Canada*, September 30, 2020, <https://www.itworldcanada.com/article/canada-urged-to-speed-up-open-banking/436426>.

<sup>33</sup> See Bill C-11, “An Act to Enact the Consumer Privacy Protection Act and the Personal Information and Data Protection Tribunal Act and to Make Consequential and Related Amendments to Other Acts,” 43rd Parliament, 2nd Session, September 23, 2020 to August 15, 2021, <https://www.parl.ca/LegisInfo/en/bill/43-2/C-11>.

<sup>34</sup> *Ibid.*, 11.



that used the existing standards, infrastructure and stakeholder and industry expertise in an attempt to “go beyond the competitive dynamics associated with either a single standard or multiple standards approach” (Government of Canada 2021).

#### **D. UNCERTAINTIES, DRAWBACKS AND IMPLEMENTATION FRICTIONS OF THE FEDERAL MODEL**

The final report has many uncertainties, implementation frictions and potential drawbacks. As a report, it is not binding on the federal government and it is highly unlikely that the initial January 2023 target implementation date will be met. Its hybrid approach could increase the complexity of its implementation and the number of considerations and stakeholders, leading to further delays and use deterrents by new market entrants. There may also be legislative and regulatory impediments to executing the blueprint that must be identified and addressed, which will require time, sufficient budget allocation and human and political capital. It was also silent on a mechanism for controlled experimentation or a regulatory sandbox in the framework, as well as the nature of participation for consumer data housed with investment dealers and investment fund managers or the use of digital identification as a building block. It was limited initially to read-only data access and activities, with an indefinite delay on write access implementations. The proposed governance entity also has many complexities to establish rules (Government of Canada 2021).

Given the potential for stakeholder divergence (with broad industry, consumer and government input) a federal framework may require legislative solutions to resolve potential delays or to expand the scope of open banking in the future to include new products or functions (particularly write access). This is relevant since the final report was unclear as to exactly the nature of technical standards at this point. There was also no exact guidance on what the third-party accreditation process would entail. Federally regulated banks were automatically accredited, but this was not the case for provincially regulated financial institutions and the final report left ambiguity on exactly what was necessary for these provincial entities (Government of Canada 2021). Delays for provincially regulated institutions to participate are anti-competitive and could perpetuate the risky practice of screen scraping. Also, if the bar to fintech participation is too high, it will deter new market entrants and the resulting system could lose some of its consumer welfare-enhancing appeal.

#### **E. PARALLEL AND COMPLEMENTARY FEDERAL GOVERNMENT INITIATIVES**

Alongside the national design and roll-out of an open banking framework are several parallel and complementary government initiatives that look to modernize financial market infrastructure and lower the costs of financial products and services for consumers in Canada. Payments Canada is working on the “modernization of the infrastructure for retail and large value payments systems” (Department of Finance 2019). The federal government is also engaging in national digital and data consultations<sup>35</sup> with diverse stakeholder inputs and has also released a National Cyber Security Strategy.<sup>36</sup>

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<sup>35</sup> See Government of Canada, “National Digital and Data Consultations,” <https://www.ic.gc.ca/eic/site/O84.nsf/eng/home>.

<sup>36</sup> See Government of Canada, “National Cyber Security Strategy,” Public Safety Canada, <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/ntnl-cbr-scrtr-strtg/index-en.aspx>.



## F. WHY HASN'T A FEDERAL OPEN BANKING REGIME BEEN IMPLEMENTED YET?

Given the recent appointment of Canada's open banking lead, it would seem that a formal framework will be crystallized in the near future (Government of Canada 2022). However, this is not certain and it is worthwhile to consider why a Canadian national open banking framework has not yet manifested. Given the passage of time since the first federal consultation, and the existence of open banking regimes in global jurisdictions (such as the U.K., EU, Singapore, Japan and Australia), one wonders what factors have caused the Canadian delay, and will these delays persist? The persistence of frictions, delays and uncertainty on the nature or specific design of a federal framework lends support for Alberta to investigate a sub-national solution.

The delays in a federal open banking framework are driven by implementation complexity and political and legislative frictions. They are not because a case for open banking cannot be made. The benefits of open banking outweigh the costs, and the status quo represents the perpetuation of the unsafe practice of screen scraping (Marotta 2021). With respect to identifiable federal frictions, allocating liability has proven to be a controversial and unsettled issue (Government of Canada 2021). Further, there are fears that an open banking environment would expose large financial institutions to cyber-attacks (Marotta 2021).

Perhaps the most material friction in the implementation of a federal framework is whether privacy law modernization is required as an ex-ante measure. Some have suggested that open banking cannot proceed unless and until Canada adopts a modern privacy law (Trichur 2022). Any system of data access and sharing — whether open banking or a wider open finance or data regime — will have privacy and data security implications and likely require enhanced consumer protections to avoid consumer abuse (Ammerman et al. 2021). Data privacy is not, however, a subordinate consideration to the implementation of an open banking regime. The inverse may be true: a modernized privacy legislative framework is paramount and an ex-ante condition for any open data paradigm (Trichur 2022).

The federal Department of Finance, in its 2019 review into the merits of open banking, noted that for a consent-based open banking framework to flourish, there needed to be a high level of consumer trust, including robust privacy protections and severe penalties for data misuse.<sup>37</sup> Strong privacy safeguards were also identified as necessary in the federal government's review of stakeholder considerations for a regulated open banking regime (Government of Canada 2020). The Office of the Privacy Commissioner of Canada also identified the privacy risks in open banking in its submissions on open banking to the Department of Finance.<sup>38</sup> Prior to the 2021 federal election, privacy reforms were federally contemplated through Bill C-11, which would have enacted a consumer privacy protection act but was scuttled by the federal election. Pressure to reform federal privacy frameworks was aided by pre-election promises by the Liberal Party and the EU's review of Canada's

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<sup>37</sup> See Department of Finance (2019): "To allow consumer choice to flourish, there will need to be confidence that any potential open banking system has in place the safeguards required to ensure Canadians' rights as consumers are respected, their privacy is protected, their information is secure and that the financial sector continues to be stable and resilient."

<sup>38</sup> See Office of the Privacy Commissioner of Canada, "A Review into the Merits of Open Banking," February 2019, [https://www.priv.gc.ca/en/opc-actions-and-decisions/submissions-to-consultations/sub\\_fc\\_190211/](https://www.priv.gc.ca/en/opc-actions-and-decisions/submissions-to-consultations/sub_fc_190211/).

adequacy status under the General Data Protection Regulation (GDPR) (Ammerman et al. 2021).<sup>39</sup> Until privacy matters are resolved, Canada's open banking implementation, on a federal level, will likely proceed at a snail's pace (Trichur 2022).

## **IV. OPEN BANKING IN ALBERTA: EVALUATING SUB-NATIONAL APPROACHES**

As noted in the previous section, a national open banking framework faces significant hurdles to implementation, which could perpetuate further delays. There are also numerous uncertainties, including how Alberta-based financial institutions will ultimately participate in the national regime. Given the benefits of open banking and the existence of federal implementation frictions and delays, it is worthwhile for Alberta to contest the presumption of inaction and look to how it can facilitate independent open banking uptake most efficiently. To aid in this endeavour, this section will analyze a variety of international precedents and use these possibilities to chart a pragmatic and informed course in recommending a market-facilitative approach in section V.

### **A. MARKET-DRIVEN FRAMEWORK FOR SAFE DATA SHARING**

One approach that the province could take is to support and foster a market-driven implementation of open banking in Alberta. Safe and secure data sharing does not require a top-down regulated framework for implementation and a safe data-sharing model can independently emerge through market participants. In a market-driven approach, technology providers and API developers work directly with financial institutions, data aggregators, trade and consumer protection associations, advocacy groups and other market participants to establish data-sharing and API standards (Deloitte n.d.). A market approach was recently advocated by former federal Finance minister Bill Morneau as a mechanism that could both buy time for a federally regulated framework to materialize and in the process avoid potential implementation and execution risks which could manifest through a hastily applied top-down regime (Duncan 2021). A market-driven approach characterizes the current state of open banking and data sharing in the United States (Department of Finance 2019; Barr and Morris 2019). Here, there are no regulated standards, but numerous financial institutions are developing proprietary APIs for vetted entities (like fintechs) to access consumer data (Department of Finance 2019).

Frustrated by how slowly a regulated framework is materializing in Canada, National Bank has recently launched a new product called Open Banking Environment (OBE) (Rolfe 2021), in partnership with its majority-held subsidiary Flinks (a national leader in screen-scraping technology).<sup>40</sup> Independent fintech budgeting application Moka has been announced as the project's first partner, with subsequent onboarding of over 300 fintech firms within the

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<sup>39</sup> Ibid., "OPC Updates Guidance Regarding Sensitive Information," August 13, 2021, [https://www.priv.gc.ca/en/opc-news/news-and-announcements/2021/an\\_210813/](https://www.priv.gc.ca/en/opc-news/news-and-announcements/2021/an_210813/)

<sup>40</sup> Flinks, which describes itself as "the financial data layer of the internet," is a fintech firm based in Montreal and is a developer of technology infrastructure solutions for data sharing and aggregation across institutions and platforms. See Flinks, "About," <https://flinks.com/about/>. Flinks is most commonly associated with the aforementioned screen-scraping method of data access and portability and has become a national leader in deploying screen-scraping technologies for consumer data sharing. See Dominique Samson, "White Paper: The State and Future of Financial Data Connectivity in Canada," Flinks, May 5, 2020, <https://flinks.com/blog/financial-data-connectivity-in-canada/>

National Bank ecosystem (Rolfe 2021). Alberta could take a facilitative approach to a market-driven solution by issuing recommended standards and guidance and releasing open API standards and technical specifications.<sup>41</sup> This is similar to the Singapore approach to open banking.<sup>42</sup> This is also similar to the approach in the U.S. where the Consumer Financial Protection Bureau has issued non-binding “principles for consumer authorized financial data sharing and aggregation” (CFPB 2017)<sup>43</sup> The province could also aid through educational campaigns about how open banking works. There are limitations, however, with a purely market approach. It may lead to inefficiencies (Duncan 2021), fragmentation, a lack of interoperability, security and liability concerns (Department of Finance 2019) and a lack of standardization and defined codes of conduct (Deloitte n.d.). Another challenge to this approach is that it could foster silos and barriers to entry as large financial institutions develop their own proprietary solutions and limit data access to fintech firms that are using their banking products or in partnership with the dominant API developer (like Flinks) (Rolfe 2021).

## **B. MANDATORY PARTICIPATION OR FINANCIAL INSTITUTION OPT-IN**

Another potential open banking framework could be based on the U.K.’s mandatory participation model which was established to address competition problems, such as barriers to entry in U.K. banking markets, allow for easy consumer and small business account and service provider switching and product comparisons, and facilitate safe electronic payments pursuant to the implementation of the EU’s Revised Payment Services Directive (PSD2) (Baker 2022; CMA 2021).<sup>44</sup> To further these goals the U.K.’s Competition and Markets Authority (CMA) established the Open Banking Implementation Entity (OBIE) to administer U.K. open banking standards and data formats, APIs, security and consumer redress, with mandatory participation for nine participating banks.<sup>45</sup>

Under the U.K. model, the nine largest high street banks (representing over 90 per cent of the domestic banking market) were given an affirmative obligation to provide free and continuous access to specific customer information including personal and business transaction-level data, and associated information (like terms and conditions, and account fees), and at the customer’s request share these data with third parties in a secure and standardized format. Third parties who accessed the data also had to register with the Financial Conduct Authority (FCA) and comply with privacy and security requirements (Awrey and Macey 2022).

The Alberta government could mandate that regulated provincial financial institutions (that fall within the province’s legal and supervisory authority) must share consumer financial data under regulated parameters through standardized APIs under a consumer-consent model. This adoption model is a prescriptive approach<sup>46</sup> and mandates that financial institutions, within their legal jurisdiction, share customer-permissioned data

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<sup>41</sup> See BIS (2019), 5.

<sup>42</sup> See *Ibid.*, 11.

<sup>43</sup> The non-binding standards “relate to data access, data scope and usability, control of the data and informed consent, payment authorizations, data security, transparency on data access rights, data accuracy, accountability for access and use, and disputes and resolutions for unauthorized access” (CFPB 2017).

<sup>44</sup> See note 3; Barr and Morris (2019), 10-11; Buckley et al. (2022), 20-22; Barr (2021), 12.

<sup>45</sup> See note 3.

<sup>46</sup> See BIS (2019), 4-5.

through regulated and standardized APIs with authorized third parties who must register with the Ministry of Treasury Board and Finance and be approved through an accreditation process. The province would not, however, be able to issue this mandate to federally regulated banks under the supervisory authority of the Office of the Superintendent of Financial Institutions (OSFI)<sup>47</sup> or the Financial Consumer Agency of Canada (FCOC).<sup>48</sup> As a result, the amount of available consumer-permissioned financial data accessible by approved third parties is significantly curtailed by a prescriptive approach in the province.

Designing a formalized top-down, sub-national open banking or data-sharing regulatory regime, mirroring what is contemplated by the federal government, will encounter and must navigate complex implementation, operational, supervisory and regulatory considerations — some of which may also require legislative solutions. The provincial government's attempts at duplicating such a regime would likely lead to implementation frictions and delays. For example, the U.K. had to establish a formal governance structure with a special-purpose body (the OBIE) which also had administrative responsibility.<sup>49</sup> In a 2022 lessons-learned report published by the CMA, it was noted that U.K. open banking implementation (including the OBIE) was “the most ambitious and complex single intervention that the Competition Markets Authority (CMA) has undertaken” and that the CMA “did not fully anticipate the scale and complexity” of the undertaking or the initial timeframe, as well as certain key risks in the project in relation to governance and relationship conflicts (Baker 2022).

An Alberta replication of the U.K. approach would require the formation of a new provincial oversight entity (like the OBIE),<sup>50</sup> under the direction of the Ministry of Treasury Board and Finance, which would administer the numerous operational considerations and accreditation processes, including API standards, customer redress mechanisms and cyber-security safeguards for how data are accessed.<sup>51</sup> This would require industry participation to determine suitable APIs, cyber-security and other technical standards<sup>52</sup> and would also require a mechanism to resolve disputes between participating third parties, banks and API developers (Awrey and Macey 2022). This is not a small undertaking and the OBIE in the U.K. has experienced significant governance failures, including episodes of mismanagement, since its inception (Baker 2022).

A top-down provincial framework must also have defined rules around obtaining consumer consent, including simple, clear and non-misleading language and explanations of basic information including what data are required and why, for how long, possible risks, standardized consent processes and a robust consent-management system (like a consent-management dashboard). Also, the gateway to data access and the accreditation process must be fair, efficient, safe and transparent<sup>53</sup> and ideally allow for multiple tiers of participation for firms on risk-mitigated parameters.<sup>54</sup> Any formalized data-access regime

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<sup>47</sup> See Office of the Superintendent of Financial Institutions, “Banks,” Government of Canada, <https://www.osfi-bsif.gc.ca/Eng/fi-if/dti-id/bnk-bnq/Pages/default.aspx>.

<sup>48</sup> See Financial Consumer Agency of Canada, Government of Canada, <https://www.canada.ca/en/financial-consumer-agency.html>.

<sup>49</sup> See note 3.

<sup>50</sup> See Barr and Morris (2019), 10–11.

<sup>51</sup> See Buckley et al. (2022), 21–22.

<sup>52</sup> *Ibid.*, 17.

<sup>53</sup> See Barr (2021), 20.

<sup>54</sup> See Government of Canada (2021), 18, 20–22.

should also incorporate the seven guiding principles for meaningful consent, jointly issued by the Office of the Privacy Commissioner of Canada and the offices of the Information and Privacy Commissioner of Alberta and British Columbia.<sup>55</sup>

A mandatory system has other significant drawbacks, particularly in terms of the regulatory and compliance costs that it could create for smaller provincially regulated financial institutions such as community credit unions (Barr 2021), and the operational and supervisory burden it places on the provincial government. If the province desired a prescriptive approach, a voluntary or opt-in system, like that in Japan, would provide greater flexibility, and such an approach has been advanced by credit union advocacy groups with respect to the federal open banking framework (Barr 2021).

Ideally, to justify the costs of any top-down sub-nationally regulated and supervised framework, a critical mass of data will be generated. While phased data access (with progressive tiers of additional data made available over time) is prudent given cybersecurity, technology, consent and privacy concerns, too little data can impair or delay conceptual open banking benefits. Thus, an immediate concern in any formalized sub-national framework is whether there is enough data to generate network effects that lead to consumer surplus. Also, whether the data pools can generate sufficient payouts for firms to undertake the ex-ante, and ongoing, regulatory cost compliance burdens in any resulting data-access regime. It is unlikely that either question is affirmatively answered for Alberta acting alone.

### C. PROVINCIAL CONSUMER DATA PORTABILITY RIGHT

Another potential sub-national open banking approach could be constructed based on an Australian model of a consumer data right (CDR).<sup>56</sup> The CDR was established in Australia in 2019, with open banking being the first step in a larger project to allow consumers greater use value from their digital data.<sup>57</sup> The roll-out of open banking in Australia, based on the CDR, targeted the country's largest four banks and allows consumers to instruct these banks to share a range of information, including account and transaction data, with third parties. To enable technical standards, the Australian government also established a Data Standards Body (Awrey and Macey 2022).

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<sup>55</sup> See Office of the Privacy Commissioner of Canada, "Guidelines for Obtaining Meaningful Consent," revised August 13, 2021, [https://www.priv.gc.ca/en/privacy-topics/collecting-personal-information/consent/gl\\_omc\\_201805/](https://www.priv.gc.ca/en/privacy-topics/collecting-personal-information/consent/gl_omc_201805/). These seven principles require: first, an emphasis on the key elements of the personal information being collected and shared, including the purpose for collection or use and any risks or harm; second, allowing individuals to control the level of detail and timing decisions; third, provide clear options to explicitly consent (through a "yes" or "no" affirmative statement); fourth, be innovative and creative in consent-design processes; fifth, consider the consumer's perspective in all touchpoints of data; sixth, make consent a dynamic and online process; and seventh, ensure organizational compliance and accountability.

<sup>56</sup> See Commonwealth Treasury, "Government Response to the Inquiry into Future Directions for the Consumer Data Right," December 2021, <https://treasury.gov.au/sites/default/files/2021-12/p2021-225462.pdf>; Commonwealth Treasury, "Inquiry into Future Directions for the Consumer Data Right: Giving Consumers Choice, Convenience and Confidence," October 2020, <https://treasury.gov.au/sites/default/files/2020-12/cdrinquiry-accessiblefinal.pdf>.

<sup>57</sup> See note 3. Also see Productivity Commission, "Data Availability and Use," March 31, 2017, <https://www.pc.gov.au/inquiries/completed/data-access/report/data-access.pdf>.

A provincial CDR would allow for the broadest extension of economic data sharing across financial, consumer discretionary (such as electronics, groceries and apparel), energy, electricity, utilities, insurance, travel, lifestyle, education and health care, among other sectors.<sup>58</sup> This might go as far as a legislative sui generis consumer data property right (Scassa 2018), which is within the province’s exclusive constitutional authority to create.<sup>59</sup> Endowing consumers with such a proprietary right would also enable bank data (both OSFI and provincially regulated financial institutions) to be shared under consensual parameters through standardized APIs within the province (although the supervisory oversight of OSFI banks would remain within the jurisdictional ambit of the federal government).

A provincial CDR is a viable step for the province to consider in the long run. The Australian government considers the CDR as the core infrastructure to support a data-driven economy. It is likely the catalyst for the province of Alberta to consider over time as it looks beyond banking to an open-data paradigm, which could include a wide range of accessible data including energy, investments, insurance, utilities, telecommunications, consumer retail and other applications. In a 2022 strategic assessment outcome report, the Australian government identified that, despite positive uptake of the CDR, industry and consumer feedback received to date strongly encourages a multi-sector approach to data sharing. Thus, the Australian government will extend the CDR beyond banking into open finance, which would entail the availability of data “across general insurance, superannuation, merchant acquiring and non-bank lending service providers” (Australian Government 2022). Following open finance, the Australian government will pursue the CDR in energy, then telecommunications. It was also noted from stakeholder feedback that a CDR’s applications are potentially infinite, including use cases for digital identity, addictions, non-profits and even disaster relief (Australian Government 2022).

Creating a provincial CDR, however, gives rise to immediate complexities in regard to participation, enforcing supervisory expectations, consumer redress, assigning liability and third-party risk assessment for data-sharing processes (BIS 2019). There are also complexities in decoupling consumer data from derived data<sup>60</sup> and identifying what data ownership, if any, is conferred through the CDR, including its scope.<sup>61</sup> These complexities increase the time, administrative and political capital required to implement and could easily lead to the types of delays currently experienced on a federal level before provincial consumers would experience a CDR’s benefits.

The CDR is the cornerstone of Australia’s approach to open banking, and the country has envisioned a transition outside of banking to a new data economy (Australian Government 2022; Buckley et al. 2022). If Alberta pursued a CDR, a key consideration would be the scope of data access and control rights and whether (and how) these rights extend beyond

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<sup>58</sup> See Buckley et al. (2022).

<sup>59</sup> *Constitution Act*, 1867, 30 & 31 Victoria, c.3 (U.K), s.92(13).

<sup>60</sup> See Scassa (2018), 3. Data can fit into broad categories including: representative, such as specific individual characteristics; implied, which are inferred by a person’s behaviour online; or derived, in that they are created by using other data. Also see Suketu Gandhi, Bharath Thota, Renata Kuchembuck and Joshua Swartz, “Demystifying Data Monetization,” *MIT Sloan Management Review*, November 27, 2018, <https://sloanreview.mit.edu/article/demystifying-data-monetization/>.

<sup>61</sup> See Rob Kitchin, *The Data Revolution: Big Data, Open Data, Data Infrastructures & Their Consequences* (London: Sage, 2014). See Scassa (2018) pages 3–4 noting that claims to data rights are often framed in copyright law, or confidential information (including trade secrets), although many of these are “uncertain and contingent”; and page 12 identifying that confidential information protection “is not equivalent of an ownership right.” See also *R. v Stewart*, [1988] 1 SCR 963, 1988 CanLII 86 (SCC).



consumer financial data (open banking), and if not, how financial data are legislatively defined.<sup>62</sup> It would also be necessary to determine whether data rights extend to read or write (push) access (Barr and Morris 2019). Write access adds numerous complexities and uncertainties since it overlaps with regulatory frameworks in insurance, credit, investments and payments.<sup>63</sup>

Data control rights have been described as the primacy principle under the EU's GDPR (BIS 2019) and were catalyzed by the EU's second Payment Services Directive (PSD2).<sup>64</sup> Consumer data sovereignty and control don't necessarily entail data ownership and a consumer may have the right to control, port and erase data without having proprietary ownership rights (Scassa 2018).<sup>65</sup> Rights of data ownership and control are an emerging area of the law and are rife with contention.<sup>66</sup> The Supreme Court of Canada has refused extending personal data ownership rights to physical medical records, ruling that ownership rights in such documents were held by the doctor, institution or clinic that compiled them.<sup>67</sup> Following this authority, it would seem likely that solidifying a proprietary right in financial data for a consumer would require new legislative action and create numerous challenges which should be approached carefully, with thoughtful consideration of potential benefits and drawbacks.<sup>68</sup>

It is also possible that a CDR would require parallel privacy reform, aligned with federal privacy reform, as noted above, to provide consumers with codified data sovereignty, where they can control and move their banking (and/or financial or other) data.<sup>69</sup> Any measure of provincial privacy reform in Alberta must facilitate interprovincial harmonization to avoid creating new frictions in data access and sharing by firms operating nationally (Scassa 2018). Further, it is critical to ensure cross-border equivalency, in alignment with federal measures, and the province has strong incentives to avoid risks associated with an adverse cross-border equivalency determination. As such, any privacy reform at a provincial level must be carefully reviewed.

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<sup>62</sup> The Australian regime, for example, has limited the extension of its consumer-data right initially to certain financial data, specifically product data, basic consumer data and advanced consumer data. The scope of data ownership is also limited under the EU's PSD2. See Barr and Morris (2019), 10-11.

<sup>63</sup> See Koeppl and Kronick (2020), 8.

<sup>64</sup> Directive 2015/2366/EU of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC [2015] OJ L 337. See Barr and Morris (2019), 10: "The objective of the bill was to enhance consumer protection by allowing consumers to own their data, providing them control over which institutions can access it and allow for simple transfers of data between organizations."

<sup>65</sup> Scassa (2018), 13: "Certainly, the consent model of data protection is designed to give individuals a degree of control over their personal information. Recent developments under the EU General Data Protection Regulation around the right of data portability, for example, also seem to lean toward quasi-ownership rights. Nevertheless, the control provided under data protection laws falls short of ownership, and even data portability is a carefully constrained type of control."

<sup>66</sup> *Ibid.*, 2: Noting a variety of contexts in which data ownership issues arise including commercialization and licensing, monopoly, anti-trust and anti-competitive issues surrounding data ownership and intellectual property rights, data that have public dimensions that affect ownership, ownership issues in relation to data location and determining whether public or private sector data protection laws apply and data ownership, portability and privacy protection conflicts.

<sup>67</sup> See *McInerney v MacDonald*, [1992] 2 SCR 138, 1992 CanLII 57 (SCC), at paras 14 & 22 (the patient held a non-proprietary interest that allows for access rights).

<sup>68</sup> See Scassa (2018), 13-17: Challenges include defining the scope, establishing ownership determinations, locating ownership, dealing with multiple competing interests and harvesting efforts by intermediaries, accommodating broader public interest and considering collateral privacy reform. Benefits of a proprietary data ownership right include enhancing investment in creation and collection and protection against unauthorized collection and use.

<sup>69</sup> See BIS (2019), 5 and Scassa (2018).



There is also a delicate balance between privacy reform and innovation accommodation.<sup>70</sup> The impact that privacy reform will have on innovation and technology development is not obvious. For example, the recent Quebec Bill 64 privacy reform has been criticized as creating frictions to interprovincial data sharing. Consumer data sovereignty and portability, clothed in enhanced privacy reform, could actually increase the regulatory burdens that technology providers such as fintech firms and data aggregators face (Stoddart 2020). Paradoxically, protective privacy legislative measures could have a disproportionately negative impact on small companies, deter fintech firms from entering the province, constrain innovation<sup>71</sup> and decrease technological development, foreign investment and capital formation around open finance-related businesses and applications.<sup>72</sup> To this end, a variety of studies on the EU's GDPR roll-out are instructive. Some of these have revealed blind spots in consumer protections,<sup>73</sup> a negative impact on venture investing and economic development in Europe<sup>74</sup> and a complex regulatory compliance burden that favours large firms to the detriment of startups and new tech market entrants, who have difficulty meeting the initial and ongoing regulatory costs.<sup>75</sup>

## A. CONTROLLED EXPERIMENTATION THROUGH A PROVINCIAL SANDBOX

Independent of a market-driven, mandatory participation model or CDR approach, open banking implementation can be aided and enhanced provincially using a regulatory sandbox whereby innovation, API development and safe data access and portability are tested and supported. Sandboxes allow for constrained market experimentation where provincial regulatory authorities can assess, in real time, the risks and actual benefits of data-sharing implementation models and applications.<sup>76</sup> A regulatory sandbox allows firms to test data applications under supervised and customer-consensual parameters (Barr and Morris 2021). Sandbox initiatives exist throughout the world including, arguably the world's

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<sup>70</sup> See M. Matthews, F. Rice and T. Quan, "Responsible Innovation in Canada and Beyond: Understanding and Improving the Social Impacts of Technology," Information and Communications Technology Council Canada, January 2021, [https://www.ictc-ctic.ca/wp-content/uploads/2021/01/ICTC\\_Report\\_SocialImpact\\_Print.pdf](https://www.ictc-ctic.ca/wp-content/uploads/2021/01/ICTC_Report_SocialImpact_Print.pdf).

<sup>71</sup> See Nicholas Martin, Christian Matt, Crispin Niebel and Knut Blind, "How Data Protection Regulation Affects Startup Innovation," *Information Systems Frontiers*, 21, 1307-1324, 2019, <https://doi.org/10.1007/s10796-019-09974-2>; see at 1318-1319, "[t]he main potential negative, innovation-constraining response that our theoretical framework identified was product abandonment, that data protection regulation might prompt firms to respond by abandoning products or product ideas that were judged fundamentally incompatible with the regulation. Our interviews found evidence for abandonment and also identified two further innovation-constraining responses: entrepreneurial discouragement, whereby concerns that data protection law will make realization of their ideas impossible might discourage would-be founders from starting firms, and what we label 'data minimization', whereby the cumulative impact of privacy regulation reduces innovators' access to data to such an extent that certain products and technologies, especially in the field of big data and artificial intelligence, become hard to develop for lack of input data."

<sup>72</sup> See Jennifer Huddleston, "The Price of Privacy: The Impact of Strict Data Regulation on Innovation and More," *American Action Forum*, <https://www.americanactionforum.org/insight/the-price-of-privacy-the-impact-of-strict-data-regulations-on-innovation-and-more/>.

<sup>73</sup> See Jeanette Herrle and Jesse Hirsh, "The Peril and Potential of the GDPR," *CIGI*, July 9, 2019, <https://www.cigionline.org/articles/peril-and-potential-gdpr/>.

<sup>74</sup> See John Strand, "GDPR Has Had a Negative Impact on Venture Investment and the Advertising Market in Europe," *New Europe*, December 3, 2018, <https://www.neweurope.eu/article/gdpr-has-a-negative-impact-on-venture-investment-and-the-advertising-market-in-europe/>. Also see Eline Chivot and Daniel Castro, "What the Evidence Shows About the Impact of the GDPR After One Year," *Center for Data Innovation*, June 17, 2019, <https://datainnovation.org/2019/06/what-the-evidence-shows-about-the-impact-of-the-gdpr-after-one-year/>.

<sup>75</sup> See note 208, Chivot and Castro. Also see Mark Scott, Laurens Cerulus and Steven Overly, "How Silicon Valley Gamed Europe's Privacy Rules," *Politico*, May 22, 2019, <https://www.politico.eu/article/europe-data-protection-gdpr-general-data-protection-regulation-facebook-google/>.

<sup>76</sup> See Koepl and Kronick (2020), 12-13.

most advanced and developed version, through the U.K.'s FCA.<sup>77</sup> Having a regulatory sandbox allows the utility of data-aggregated products and services to be tested without a correspondingly complex regulatory architecture or a mandated regime. Fintech worldwide funding trends, as recently documented by researchers at the BIS, suggest that funding sources for fintech firms are diverse, yet those firms operating in countries with more innovation capacity and better regulatory quality receive higher levels of equity funding. The BIS report also notes that equity funding increased after the introduction of a regulatory sandbox to a geographic location (Cornelli et al. 2021).

Alberta recently passed the *Financial Innovation Act* (FIA) which created a provincial regulatory sandbox (the first province in Canada to enact such a measure), thereby making it easier for financial and fintech companies to develop and test new financial products and services (Government of Alberta n.d.). The FIA sandbox also facilitates regulatory relief beyond securities jurisdiction<sup>78</sup> (where a regulatory sandbox has existed in Alberta since 2017, administered by the Alberta Securities Commission under the umbrella of the Canadian Securities Administrators).<sup>79</sup> Using the FIA to test safe data portability and API development will prepare fintech firms to succeed in larger data-sharing regimes, including the national framework, and will also allow Alberta regulators to develop their supervisory expertise for safe data sharing and create recommended but non-binding parameters, guides and standards.

Using the FIA sandbox for open banking-related testing may help to expand the reach, scope and profitability of provincially regulated financial institutions as they interact with global fintech market entrants in the data economy; and stimulate entrepreneurship and integration with both university and industry accelerators and startup hubs.<sup>80</sup> It may also intersect with and leverage the existing strengths of firms operating in the province including artificial intelligence research,<sup>81</sup> ATB Ventures<sup>82</sup> and blockchain technology development.<sup>83</sup> Given the accommodating architecture of the FIA sandbox, the province's

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<sup>77</sup> See Financial Conduct Authority, "Regulatory Sandbox,"

<https://www.fca.org.uk/firms/innovation/regulatory-sandbox>.

<sup>78</sup> Government of Alberta (n.d.): "Companies that participate in the regulatory sandbox may be exempt from some or all of the legal requirements set out in each of the following Acts: *Loan and Trust Corporations Act*; *Credit Union Act*; *ATB Financial Act*; *Consumer Protection Act* (Exemptions to the *Consumer Protection Act* would also require approval from the Minister of Service Alberta); *Personal Information Protection Act* (Exemptions to the *Personal Information Protection Act* would also require approval from the Office of the Information and Privacy Commissioner. This ensures personal information would be protected. Exemptions would also require approval from the Minister of Service Alberta); and *Financial Consumers Act*." The FIA also "establishes a regulation-making authority that would allow it to apply to other legislation if needed."

<sup>79</sup> See Canadian Securities Administrators Regulatory Sandbox,

<https://www.securities-administrators.ca/resources/regulatory-sandbox/>.

<sup>80</sup> See University of Calgary, "The Hunter Hub for Entrepreneurial Thinking," <https://www.ucalgary.ca/hunter-hub>; University of Alberta, "Innovation + Entrepreneurship @UAlberta,"

<https://www.ualberta.ca/research/innovation/at-ualberta.html>; University of Calgary, "Creative Destruction Lab," <https://www.creative destructionlab.com/locations/calgary/>.

<sup>81</sup> See Alberta Artificial Intelligence Association, <https://www.albertaai.org/>; Alberta Machine Intelligence Association, <https://www.amii.ca/>.

<sup>82</sup> See ATB Ventures, <https://atbventures.com/>.

<sup>83</sup> See Canadian Blockchain Consortium, <https://www.canadablockchain.ca/>.

general entrepreneurial ethos<sup>84</sup> and accommodating business corporations regulatory structure, including the recently announced corporate opportunity waiver program,<sup>85</sup> the province could be an ideal and attractive ecosystem for startups and technology and financial firms operating in the data ecosystem.

There are inherent limitations in the amount of banking data available through a sub-national framework. As a result, by using the FIA's financial products and services jurisdictional ambit, Alberta could immediately look beyond banking to a broader data-sharing paradigm with payments, investments, insurance, crypto-assets, non-bank lending, corporate identification and tax data unlocked and made accessible across financial institutions and fintech firms.<sup>86</sup> Scholars who have studied the Australian experience to date (Buckley et al. 2022) also advocate for the need to expand from open banking to open finance.

Depending on the financial product or service being considered and assessed, FIA sandbox use case development may also consider integration with government data, such as information housed by the Alberta Corporate Registries System (CORES), which would allow for cross-portability and access (under defined parameters) for business entity, shareholder and director-level identification.<sup>87</sup> It could also be integrated with Alberta Finance for access to tax-level data for both individuals and firms.<sup>88</sup> APIs could be tested within the FIA sandbox that allow for the safe and consensual sharing of data housed in diverse locations including the Alberta Treasury Branch, provincial credit unions and trust companies, investment companies,<sup>89</sup> insurance providers<sup>90</sup> and government bodies.<sup>91</sup> Here, unique customer offerings could be tailored across a digital platform ecosystem and a variety of financial service providers and fintech companies could access data from diverse sources.<sup>92</sup>

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<sup>84</sup> See Business Council of Alberta, "This is Alberta's Decade: Top Business Leaders Launch Task Force to Define Alberta's Next Decade of Growth and Prosperity," *Globe Newswire*, August 4, 2021, <https://www.globenewswire.com/en/news-release/2021/08/04/2274672/0/en/This-is-Alberta-s-decade-top-business-leaders-launch-task-force-to-define-Alberta-s-next-decade-of-growth-and-prosperity.html>.

<sup>85</sup> See Alberta, "Attracting Business and Investment to Alberta," <https://www.alberta.ca/attracting-business-and-investment-to-Alberta.aspx>; and Stephanie Hughes, "Alberta Looks to Cut Red Tape for Growth Capital With Proposed 'Corporate Opportunity Waivers,'" *Financial Post*, November 22, 2021, <https://financialpost.com/fp-finance/alberta-looks-to-cut-red-tape-for-growth-capital-with-proposed-corporate-opportunity-waivers>.

<sup>86</sup> See Buckley et al. (2022), 3; Ryan Clements, "Regulating Fintech in Canada and the United States: Comparison, Challenges and Opportunities," in *The Routledge Handbook of Fintech*, K. Thomas Liaw, ed. (London: Routledge, 2021), 420–422.

<sup>87</sup> See Corporate Registries System (CORES), [https://cores.reg.gov.ab.ca/cores/cr/cr\\_login.login\\_page](https://cores.reg.gov.ab.ca/cores/cr/cr_login.login_page).

<sup>88</sup> See Alberta, "About Tax and Revenue Administration," <https://www.alberta.ca/about-tra.aspx>.

<sup>89</sup> See Yves-Gabriel Leboeuf, "Is 2021 When Digital Onboarding Goes Mainstream for Wealth Firms?" *Wealth Professional*, December 9, 2020, <https://www.wealthprofessional.ca/news/industry-news/is-2021-when-digital-onboarding-goes-mainstream-for-wealth-firms/336075>.

<sup>90</sup> See Greg Meckback, "The 'Strange and New Opportunity' for Insurance from Open Banking," *Canadian Underwriter*, January 4, 2021, <https://www.canadianunderwriter.ca/legislation-regulation/the-strange-and-new-opportunity-for-insurance-from-open-banking-1004201905/>.

<sup>91</sup> The concept of an open finance regime, as having increased consumer welfare benefits, is gaining traction as a strategy for financial services firms to maintain engagement with consumers in an increasingly digitized environment. Various conceptions of open finance have been discussed including banking-as-a-service, which looks to leverage technological developments like application programming interfaces (APIs) for the safe sharing of data between service providers beyond banks, including payments and investment companies. See PYMNTS, "In Canada, Basic Open Banking Just Got an Upgrade to 'Open Finance'," August 2, 2021, <https://www.pymnts.com/digital-first-banking/2021/canada-basic-open-banking-upgrade-finance/>.

<sup>92</sup> See Rob Davidson, "Fintech and Open Finance: A Conversation with Plaid's Ben White," *Medium*, August 12, 2021, <https://medium.com/digitalthinktankictc/fintech-and-open-finance-a-conversation-with-plaids-ben-white-564a227e8820>.

Another parallel development that could dovetail with, or be designed to integrate directly into, the FIA sandbox is a regime for a wider range of accessibility of government-held data for its use in financial products and services.<sup>93</sup> The Alberta government provides open access for a variety of datasets.<sup>94</sup> Alberta-based firms that provide payments solutions for business-to-business (B2B) or consumer-to-business (C2B) point-of-sale transactions must comply with a variety of risk-reducing KYC and anti-money laundering (AML) measures pursuant to money service requirements established by the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act*<sup>95</sup> and enforced by the Financial Transactions and Reports Analysis Centre of Canada (FINTRAC).<sup>96</sup> These regulatory obligations can be very costly and challenging for B2B fintech service providers when a risk analysis is needed for a business client and the fintech must use third-party aggregators to verify client identity because verification data are not available from government accessible sources.<sup>97</sup> These verification costs are most likely passed down to consumers.

## V. RECOMMENDATION: ADVANCE A MARKET-FACILITATIVE APPROACH

The Alberta government has committed to revitalizing and diversifying its economic base<sup>98</sup> and developing its financial and technology sectors.<sup>99</sup> The facilitation of a vibrant financial services and financial technology ecosystem aligns with this goal. As the CMA noted in a 2022 lessons-learned review, open banking has been “at the forefront of the expansion of the fintech community” (Baker 2022). A simple way to think of open banking is that it creates a safer underlying ecosystem to develop data applications and new technology-driven financial products and services in a more secure way than screen scraping. As outlined, there are numerous economic benefits from open banking including greater venture capital investment and entrepreneurship funding in financial services (Babina et al. 2022). Open banking can also facilitate new opportunities for synergies, cross-selling, adjacency selling and horizontal integration for existing provincial financial institutions;<sup>100</sup> more effective client onboarding and KYC mechanisms (for payments and other financial applications);<sup>101</sup> and regulatory compliance (regtech) solutions and innovations with applications outside of finance to help firms reduce the cost of regulatory compliance burdens.<sup>102</sup>

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<sup>93</sup> See Scassa (2018), 2: “The open data movement involves governments making government data available for reuse under open licences. Underlying open data licences are claims to government ownership rights in the data.”

<sup>94</sup> See Government of Alberta, “Open Data,” <https://open.alberta.ca/opendata>.

<sup>95</sup> *Proceeds of Crime (Money Laundering) and Terrorist Financing Act*, S.C. 2000, c. 17.

<sup>96</sup> See Financial Transactions and Reports Analysis Center of Canada, “Money Service Businesses,” Government of Canada, <https://www.fintrac-canafe.gc.ca/msb-esm/msb-eng>.

<sup>97</sup> See LexisNexis, Risk Solutions, “InstantID® Business,” <https://risk.lexisnexis.com/products/instantid-business>.

<sup>98</sup> See Government of Alberta, “Alberta’s Recovery Plan Overview,” <https://www.alberta.ca/recovery-plan.aspx>; Government of Alberta, “Cutting Red Tape,” <https://www.alberta.ca/cut-red-tape.aspx>.

<sup>99</sup> See Invest Alberta, “Technology and Data,” <https://investalberta.ca/key-sectors/technology-and-data/>.

<sup>100</sup> See KPMG, “Forging the Future. How Financial Institutions are Embracing Fintech to Evolve and Grow,” 2019, 22, <https://assets.kpmg/content/dam/kpmg/ke/pdf/thought-leaderships/Forging-with%20bleeds.pdf>.

<sup>101</sup> See Luke Hinchliffe, “7 Ways APIs are Revolutionizing KYC and AML,” Finextra, February 16, 2021, <https://www.finextra.com/blogposting/19891/7-ways-apis-are-revolutionizing-kyc-and-aml>.

<sup>102</sup> See Jessica Yabsley, “Open Data Standards: New Opportunities for RegTech,” Data Coalition, September 7, 2018, <https://www.datacoalition.org/open-data-standards-new-opportunities-for-regtech/>.

As this article has shown, there are complexities and ongoing delays in the implementation of a national open banking framework and a potential need for ex-ante national privacy reform. The timelines on a national regime are uncertain and it is also uncertain that API development will be solely reliant on the big banks. Further, it is not obvious from the federal advisory committee's final report how existing Alberta-based provincially regulated financial institutions, including credit unions and new provincial fintech market entrants who are providing financial products and services across Canada, will be able to participate in the national regime. Or, whether there are barriers to participation for Alberta-based financial institutions and fintechs.<sup>103</sup> Also, provincial financial institutions like credit unions are subject to provincial consumer protection laws which may need to be amended to align with federal open banking requirements.

Alberta can participate in the benefits of open banking without being tethered to the federal government's uncertain timeline or the formation of a national open banking framework. Section IV canvassed a variety of international precedents to open banking adoption that have been implemented globally and assessed the positive elements and integration frictions in each potential approach. There is a pragmatic and informed way to chart an open banking course for the province without relying on the formation of a federal framework or requiring a complex sub-national regulatory architecture or governance oversight body. The pragmatic approach is to take steps to advance a market-facilitative approach to open banking. That is, the province can actively facilitate an accommodative advisory role, take steps to foster market-driven use cases and industry partnerships through the FIA sandbox and the Invest Alberta concierge and actively work to reduce barriers to entry for data portability entrepreneurship. The Alberta government can facilitate a market-driven innovation ecosystem, anchored by the FIA, by taking three immediate steps. These steps are low-friction and do not require the expenditure of significant policy or administrative resources — particularly because the first two steps look to better develop, promote and use existing government initiatives.

First, it is necessary to engage in public-facing educational efforts on the benefits, processes and functionality of the FIA sandbox as applied to data portability. Recent survey data from financial and banking executives in Europe, who have been operating for several years under an open banking framework, strongly emphasized the need for proactive educational measures, as 75 per cent of respondent executives believed that consumer awareness was critical for the adoption of open banking payments (Fintech Global 2022). The educational initiatives could originate and be disseminated by FIA sandbox staff (aided by Invest Alberta concierge staff) and could include public-facing, accessible resources on how the FIA sandbox works; who can use it (and how); continuing reports on use cases emanating from the sandbox; consumer value in data portability; use cases for open banking (and beyond banking with the full legislative scope of the FIA); and the importance of informed consent. It could also develop principles for safe data sharing, similar to educational initiatives the CFPB has undertaken in the U.S.<sup>104</sup> Further, it could look to design and issue recommended standards and guidance similar to a Singaporean approach.

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<sup>103</sup> See Barr and Morris (2019), 17-18, 20. These barriers could include the costs associated with small financial institutions, fintechs or credit unions having to adopt multiple API standards.

<sup>104</sup> See Consumer Financial Protection Bureau (2017).



The newly passed FIA should be viewed as the foundational driver of a market-facilitative approach. It allows for immediate constrained experimentation of open banking and API use case development without additional legislative action, privacy reform (or adverse privacy determinations) or the expenditure of significant administrative resources. It is an ideal low-friction testing site for open banking use cases where existing provincial financial institutions can develop market solutions and partner with fintech firms. The FIA provides an immediate come-and-test signal for fintechs currently operating in data ecosystems extra-provincially (and globally), and it could generate a ripple effect on job and capital formation, including attracting new market entrants and foreign investment.<sup>105</sup> It helps to remove as many frictions as possible that would otherwise prevent a financial services participant from locating its technical expertise in Alberta. Further, it allows the province to potentially leapfrog the national framework by developing expertise through the FIA sandbox in data portability use cases relating to a financial product or service (the defined legislative scope of the FIA)<sup>106</sup> that may also have application use value beyond banking and within a larger financial ecosystem, as well as for energy, utilities, consumer retail data, government open data and self-sovereign digital identity.

Second, in conjunction with the FIA, the province could use and promote the Invest Alberta Financial Services Concierge service as a gateway to open banking partnerships and the FIA sandbox.<sup>107</sup> The concierge could directly work with the administrative oversight mechanisms of the FIA sandbox and aid in the educational measures advanced in point one, including hosting public-facing events and providing use case education. It could also help facilitate market partnerships and make introductions for firms wanting to engage in open data use cases or access the FIA sandbox. The concierge can also help to facilitate inter-agency communications through the FIA for certain data-sharing and API applications that require ministerial approval beyond the Minister of Treasury Board and Finance.<sup>108</sup> The Invest Alberta concierge could also facilitate engagement, partnerships and open finance applications between incumbent financial institutions and new fintech market entrants, similar to what's emerged in Quebec between National Bank and Flinks.<sup>109</sup>

Third, the province should undertake further investigation into how to advance data portability beyond the financial product or service legislative perimeter of the FIA and consider the creation of a consumer-data right (CDR). The CDR, if properly constructed, could serve as the foundation of a broader open data ecosystem in Alberta. Further, the Australian government, when recently assessing the operation of its CDR, suggested that “the success of the CDR depends on creating a thriving innovation ecosystem” (Australian Government 2022). So the first two steps are important complementary measures for a longer term CDR. It will also be necessary to consider how a CDR intersects with potential

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<sup>105</sup> The benefits of positive market signals from regulators, and the resulting impact on the development of fintech expertise and capital formation, have been identified in scholarship. See Ross P. Buckley, Douglas Arner, Robin Veidt and Dirk Zetzsche, “Building Fintech Ecosystems: Regulatory Sandboxes, Innovation Hubs and Beyond,” *Washington University Journal of Law & Policy*, vol. 61, issue 1, 55, 2020, [https://openscholarship.wustl.edu/law\\_journal\\_law\\_policy/vol61/iss1/10](https://openscholarship.wustl.edu/law_journal_law_policy/vol61/iss1/10).

<sup>106</sup> This requirement defines the legislative perimeter for FIA sandbox relief. See note 1.

<sup>107</sup> See Invest Alberta, “Financial Services Concierge,” <https://investalberta.ca/key-sectors/financial-services/concierge/>.

<sup>108</sup> See Alberta, “Innovating the Finance Sector,” <https://www.alberta.ca/innovating-the-finance-sector.aspx>. This would include exemptions from the Minister of Service Alberta for exemptions to the *Consumer Protection Act* and exemptions from the Minister of Service Alberta and the Office of Information and Privacy Commission for exemptions to the *Personal Information Protection Act*.

<sup>109</sup> See Rolfe (2021).

privacy reform. The legislative design considerations of privacy reform are critical to assess given potential adverse international determinations, and chilling effects on innovation development and capital formation in the technology sector, and a stifling impact on competition and new market entry.<sup>110</sup> In regard to privacy reform, it is also necessary to determine the types of measures that are needed for privacy and data protection for businesses, since not all privacy legislation affects consumers and businesses in the same way.

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<sup>110</sup> See note 71.



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