

FinTech Innovation: A Digital Opportunity beyond Finance for Canada.

I Introduction: FinTech Globally

Financial technology, or FinTech, is one of the world's fastest-growing economic sectors today. According to the April 2017 Global FinTech Hubs Federation Report, 2016 saw over \$17.4 billion invested in FinTech globally across 1,436 deals that year; China and the US were the largest markets.¹ FinTech encompasses a variety of technologies that enable access to financial services in new, innovative, more efficient, and arguably more secure ways. Consider TransferWise, the peer-to-peer money transfer service headquartered in London UK that allows individuals and businesses to execute cross-border money transfers at a fraction of the cost users would incur going through a traditional bank.² London-based Everledger uses distributed ledger technology and smart contracts to reduce risk and fraud by tracking valuable assets like fine wines and diamonds through their lifetime journey.³ The implications of the ability to track diamonds helps in identifying diamonds sourced in war zones, something Everledger has been working to achieve.⁴

What is intriguing about some FinTech innovation is the potential to revolutionize entire sectors and processes beyond financial services. Given that financial services are traditionally considered to be amongst the most centralized and least innovative sectors, this is a particularly interesting development for many observers of both the financial services sector and the innovation file. Blockchain, or distributed ledger technology is perhaps the most striking example. Blockchain's ability to create irrefutable, tamper-proof and decentralized records for the transfer of value could prove revolutionary for sectors and areas of human life far beyond finance and into recording all kinds of important things such as land ownership rights; birth and death certificates; education and employment records; insurance claims, votes, and other transfers of value.⁵ Don Tapscott has said that what the internet did for the transfer of information, Blockchain is now doing for the transfer of value, making it one of our biggest economic innovations in memory as the second generation of the digital revolution.

Globally, governments and central banks have been looking closely at understanding and experimenting with FinTech with an eye not to miss out on important opportunities. The Bank of England, Bank of Canada, US Federal Reserve, and the People's Bank of China are all experimenting with developing Central Bank Digital Currencies (CBDCs) for use by the general

¹ "Global FinTech Hubs Federation Report," 2017, <http://thegfhhf.org/wp-content/uploads/2017/04/J11481-Global-FinTech-WEB.pdf>

² "TransferWise," 2017, <https://transferwise.com/ca/business>

³ "Everledger," 2017, <https://www.everledger.io/>

⁴ Volpicelli, Gian. "How the blockchain is helping stop the spread of conflict diamonds." Wired. February 15, 2017. Accessed March 15, 2017. <http://www.wired.co.uk/article/blockchain-conflict-diamonds-everledger>

⁵ Tapscott, Don & Tapscott, Alex. "The Blockchain Corridor Report." February 7, 2017. Accessed February 20, 2017. <http://dontapscott.com/BlockchainCorridorReport.pdf>

public to make payments. The Bank of Canada recently completed an assessment that investigated how and why CBDCs could be advantageous for Canada.⁶ According to Carolyn Wilkins, deputy Governor of the Bank of Canada, a CBDC would empower central banks to respond more quickly to systemic shock, better gauge the efficacy of monetary decisions and add transparency to financial markets.⁷

The People's Bank of China completed a trial run of its own digital currency based on Blockchain technology in December 2016. The trial took place on a shared distributed ledger that included several major commercial banks as participants. The world's largest bank by assets, the Industrial and Commercial Bank of China along with the Bank of China, both government-owned banks, participated in the trial along with privately-owned WeBank. The People's Bank of China also intends to create a Digital Currency Research Institute. China's central bank put together a specialist research team as early as 2014, engaging experts from Citibank and Deloitte in discussions of regulatory frameworks required for a national digital currency.⁸ The Bank of England has also been investigating the benefits of a CBDC and has estimated that CBDC issuance of 30% of GDP, against government bonds, could permanently raise GDP by as much as 3% due to reductions in real interest rates, distortionary taxes, and monetary transaction costs.⁹

Other governments have been experimenting with applications of FinTech beyond the financial services sector. The Estonian government has been experimenting with distributed ledger technology (DLT) for a number of years using a form of DLT known as Keyless Signature Infrastructure (KSI), developed by Estonian company Guardtime. KSI allows citizens to verify the integrity of their records on government databases, and makes it impossible for privileged insiders to perform illegal acts inside the government networks. This ability to assure citizens that their data are held securely and accurately has helped Estonia to launch digital services

⁶ Fung, Ben & Halaburda, Hannah. "Central Bank Digital Currencies: A Framework for Assessing Why and How." Bank of Canada. November 2016. Accessed December 15, 2016.

<http://www.bankofcanada.ca/wp-content/uploads/2016/11/sdp2016-22.pdf>

⁷ Tapscott, Alex. "Mark Carney has seeded a revolution by embracing FinTech." The Globe and Mail. July 22, 2016. Accessed January 29, 2017. <http://www.theglobeandmail.com/report-on-business/rob-commentary/mark-carney-has-seeded-a-revolution-by-embracing-FinTech/article31059215/>

⁸ Das, Samburaj. "China's Central Bank Completes Digital Currency Trial on a Blockchain." Crypto Coin News. January 1, 2017. Accessed March 1, 2017.

<https://www.cryptocoinsnews.com/chinas-central-bank-completes-digital-currency-trial-blockchain/>

⁹ Barrdear, John & Kumhof, Michael. "The macroeconomics of central bank issued digital currencies." Bank of England Staff Working Paper No. 605. July 2016.

<http://www.bankofengland.co.uk/research/Documents/workingpapers/2016/swp605.pdf>

such as e-Business Register and e-Tax. These significantly reduce the administrative burden on the state and the citizen.¹⁰

In the UAE, the Dubai Blockchain Strategy, launched by His Highness Sheikh Hamdan, is a result of a collaboration between the Smart Dubai Office and the Dubai Future Foundation to continually explore and evaluate the latest technology innovations that demonstrate an opportunity to deliver more seamless, safe, efficient, and impactful city experiences. Required documentation, such as visa applications, bill payments and license renewals, which account for over 100 million documents each year, will be transacted digitally under the new strategy.¹¹

The World Bank posits that over 2 billion adults are currently excluded from the formal financial system.¹² Ultimately, FinTech is an enabler of economic inclusion and it has captured the world's attention with its global implications and scalability.

Mark Carney, Governor of the Bank of England and fellow Canadian, recently said:

“To its advocates, FinTech will democratise financial services. Consumers will get more choice and keener pricing. SMEs will get access to new credit. Banks will become more productive, with lower transaction costs, greater capital efficiency and stronger operational resilience. Financial services will be more inclusive; with people better connected, more informed and increasingly empowered. And tantalisingly, FinTech could help make the system itself more resilient with greater diversity, redundancy and depth.” (April, 2017)

The economic advantages of FinTech and efficiencies to existing industries are significant, and Canada has a leading role to play in this global movement.

II FinTech in Canada

Canada has a healthy and vibrant breeding ground for FinTech. According to the recent Global FinTech Hub Federation report, compiled by Deloitte, \$183 million was invested in FinTech in Canada in 2016. More than 80 FinTech companies across Canada have attracted nearly \$1 billion in investments since 2010 according to Payments Canada.¹³

¹⁰ “Distributed Ledger Technology: beyond block chain.” UK Government Office for Science. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf

¹¹ “Dubai Blockchain Strategy.” December 2016. http://www.smartdubai.ae/dubai_blockchain.php

¹² “Financial Inclusion.” The World Bank. <http://www.worldbank.org/en/topic/financialinclusion>

¹³ “FinTechs: Taking a Deep Dive into the Canadian Payments Ecosystem.” <https://www.payments.ca/summit/event/FinTechs-taking-deep-dive-canadian-payments-ecosystem>

A recent Accenture report has identified that Canada is home to over 140 FinTech companies.¹⁴ More than 80% of Canadian FinTechs are Toronto-based, with hubs at Ryerson University's Digital Media Zone; One Eleven; the Creative Destruction Lab at the Rotman School; and MaRS Discovery District, which is well-positioned in the heart of the financial area of Toronto; and also including robo-advisor Wealthsimple, which just raised an additional \$50 million from Canadian investors Power Financial¹⁵ and p2p lenders Borrowell. There are also notable FinTech companies in Vancouver such as the payments company Payfirma and blockchain applications provider Bluzelle and Montreal-based Blockstream, a company that raised \$55 million in Series A funding last year.¹⁶

A number of reports in recent years have focused on analyzing the Canadian FinTech ecosystem, highlighting both the ingredients that position Canada well for building and hosting a thriving FinTech sector and the challenges we face to get there. Among Canada's strengths are its stable and secure financial system; access to a large and relevant talent pool; and a thriving technology sector.¹⁷ The Toronto region specifically is known globally for its strong, healthy and resilient financial services sector, ranked second in North America, alongside its technology sector which is also ranked second largest in North America.¹⁸

At a recent Blockchain Canada meetup at MaRS in May 2017, Perianne Boring, Founder and President of Washington-based Chamber of Digital Commerce identified three factors that position Canada well for being a leader in the blockchain space specifically: 1. Canada's consolidated and healthy financial system; 2. Canada's relatively streamlined regulatory environment (compared to the US) with strong support from government; and 3. An advanced technology ecosystem paired with a strong economy.

¹⁴ "Toronto Region FinTech Ecosystem." Accenture. 2017.

http://www.tfsa.ca/infographics/Infographic_Creative_A4.pdf

¹⁵ O'Hara, Clare. "Robo-advisor Wealthsimple gets \$50-million boost from Power Financial." The Globe and Mail. May 11, 2017. Accessed May 15, 2017.

<https://www.theglobeandmail.com/globe-investor/funds-and-etfs/etfs/robo-advisor-wealthsimple-gets-50-million-boost-from-power-financial/article34957668/>

¹⁶ Galang, Jessica. "Blockstream Raises \$55 Million Series A." Betakit. February 3, 2017. Accessed May 5, 2017. <http://betakit.com/blockstream-raises-55-million-series-a/>

¹⁷ King, Michael. "As countries develop strategies, we need a FinTech champion." The Globe and Mail. May 14, 2017. Accessed May 15, 2017.

<http://www.theglobeandmail.com/report-on-business/rob-commentary/as-countries-develop-strategies-we-need-a-FinTech-champion/article34983568/>

¹⁸ "Toronto Region FinTech Ecosystem." Accenture. 2017.

http://www.tfsa.ca/infographics/Infographic_Creative_A4.pdf

So far it seems like Canada innovates primarily in the payments and lending space, many of these new FinTech firms have been started and are led by former financial services professionals.¹⁹

“It’s hard not to be fascinated by something so transformative. This technology is being used in ways that have implications for central banking that span all the functions that we have.”

– Carolyn Wilkins, Senior Deputy Governor of the Bank of Canada

“We believe that the economy works best when it works for everyone, and this new platform (blockchain) is an engine of inclusion.”

– Don & Alex Tapscott, Blockchain Revolution (2016)

To date our research has confirmed the major findings of the 2015 Innovation Policy Lab report for the TFSA (Toronto Financial Services Association) on the GTA’s FinTech ecosystem, that while the GTA has all the necessary components for a successful FinTech sector, these components are weakly connected. Financial services institutions continue to struggle to work closely and effectively with FinTechs and the regulatory landscape has been difficult for innovators to navigate. In times of innovation and change, governments can help to provide vision and leadership by addressing gaps in legislative or regulatory frameworks in order to enable nascent sectors to flourish.²⁰ Canada currently lacks appropriate government leadership to drive the FinTech sector’s growth, and could benefit from both a national FinTech strategy and a FinTech advisory board. In the UK for example, the Treasury has appointed FinTech investor Eileen Burbidge as “special envoy” for FinTech, and serial entrepreneur Eric van der Kleij as FinTech and Blockchain advisor for the Department of International Trade, in addition to launching the industry-led FinTech advisory panel “FinTech Bridges.”²¹ These appointments and initiatives are strong testimony to government’s commitment to growing the FinTech sector at home and abroad, and serve as a replicable blueprint for other aspiring FinTech hubs.

¹⁹ “Seizing the Opportunity: Building the Toronto Region into a Global FinTech Leader.” Toronto Financial Services Authority. 2017.

<http://tfsa.ca/storage/reports/BuildingTheTorontoRegionIntoAGlobalFinTechLeader.pdf>

²⁰ “Review of the Federal Financial Sector Framework.” Toronto Financial Services Authority. November 2016.

https://www.tfsa.ca/resources/pdf/TFSA_Submission_Financial_Framework_Review_Nov_2016.pdf

²¹ “UK world-leading FinTech industry to be given new government boost.” HM Treasury. April 11, 2016. <https://www.gov.uk/government/news/uks-world-leading-FinTech-industry-to-be-given-new-government-boost>

Despite some of Canada's slower movement in getting FinTech off the ground, some recent momentum lends optimism to the state of Canada's FinTech ecosystem. The most noteworthy updates include the government's increased attention to understanding FinTech and blockchain; the creation of new provincial FinTech working groups or committees in both Quebec and Ontario and regulatory sandboxes being established by the OSC and CSA. We will now investigate some of the recent developments in more detail.

1. Bank of Canada

Federal departments are in the process of working to understand the concept of Blockchain and are at the early stages of creating policies around it, particularly in areas such as privacy, banking and cybersecurity. The Bank of Canada, Payments Canada and R3 Consortium Lab and Research Centre have a joint DLT experiment called Project Jasper which is examining how to put a government-backed, or fiat, currency on Blockchain. Project Jasper is essentially a simulated wholesale payment system using DLT-based settlement asset called 'CADcoin'. The purpose of this experiment is two-fold: the first to see how the test system could meet international standards for systemically important payments infrastructure that would be set if the system were to go live, and secondly to collaborate with the private sector on a concrete DLT application. So far, the project has produced important insights that have helped the Bank of Canada better understand the business imperative of those who provide and access financial services.²²

Central Bank Digital Currencies: One key policy question for public authorities such as a central bank is whether or not to issue its own digital currency that can be used by the general public to make payments. First, a central bank may explore whether issuing a Central Bank Digital Currency (CBDC) would improve the efficiency of its currency function. Second, a CBDC could improve the efficiency and safety of both retail and large-value payment systems. Third, a CBDC could be an appropriate policy response to payment innovations such as privately issued e-money and digital currency that might impair the central bank's ability to achieve its monetary policy goals and to implement policies promoting financial stability.²³

2. Establishment of FinTech Advisory Committees

In the fall of 2016, Quebec's regulator, the AMF announced the creation of a Technological Innovation Advisory Committee (TIAC). Quebec launched a similar initiative last December with the announcement of its Technological Innovation Advisory (TIAC), whose role Committee

²² Wilkins, Carolyn. "Project Jasper: Lessons From Bank of Canada's First Blockchain Project." Coin Desk. February 10, 2017. Accessed March 25, 2017. <http://www.coindesk.com/project-jasper-lessons-bank-of-canada-blockchain-project/>

²³ Fung, Ben & Halaburda, Hannah. "Central Bank Digital Currencies: A Framework for Assessing Why and How." Bank of Canada. November 2016. Accessed December 15, 2016. <http://www.bankofcanada.ca/wp-content/uploads/2016/11/sdp2016-22.pdf>

(TIAC) which is meant to support the FinTech Working Group of the *Autorité des marchés financiers (AMF)*.²⁴ While these are healthy and encouraging developments at the provincial level, Canada still lacks a coherent FinTech strategy and voice at the federal level, to support the industry and act as the bridge between the provincial efforts to avoid operating in silos.

In early 2017, the Ontario Securities Council (OSC) followed suit and announced the creation of the FinTech Advisory Committee. Comprised of financial services industry representatives and FinTech entrepreneurs, the committee's responsibility is to the OSC on developments in the FinTech sector and feedback challenges faced by FinTech firms.²⁵

3. Creation of Regulatory Sandboxes

Regulation must remain relevant to new emerging business models in order to avoid stifling innovation while maintaining consumer protection. Unlike Airbnb or Uber where users are taking on the local taxi authority or hotel industry, FinTech takes on the Central Banks and national financial authorities federal where there are serious criminal and civil consequences for challenging or violating regulation. Because some aspects of financial technology are very nascent, like Blockchain for example, where no one owns or controls bitcoin, the main use case of Blockchain to date, regulation has proven elusive.

While Canada has seen some FinTech success in the P2P lending space, regulatory barriers and government policies continue to be an impediment to Canada's development to a leadership position in the blockchain space. Furthermore, as outlined in the recent February Tapscott report, ***there has been no systematic study of the do and don'ts of regulation of blockchain technology yet.***²⁶

It is widely acknowledged and often decried that Canada's financial regulatory system is fragmented, with no single securities regulator underpinning strong national capital markets. National and provincial regulators have so far been unable or unwilling to lay out a coherent approach towards Blockchain. Blockchain enthusiasts in Canada now join the chorus of voices calling for a national regulator for finance and securities to make Canada more globally competitive.

²⁴ Rickard, Andrew. "Quebec regulator creates FinTech advisory committee." September 15, 2017. Accessed May 5, 2017. <http://insurance-journal.ca/article/quebec-regulator-creates-FinTech-advisory-committee/>

²⁵ "OSC Announces FinTech Advisory Committee Members." Ontario Securities Commission. January 26, 2017. Accessed May 5, 2017. http://www.osc.gov.on.ca/en/NewsEvents_nr_20170126_FinTech-advisory-committee-members.htm

²⁶ Tapscott, Don & Tapscott, Alex. "The Blockchain Corridor Report." February 7, 2017. Accessed February 20, 2017. <http://dontapscott.com/BlockchainCorridorReport.pdf>
<http://dontapscott.com/BlockchainCorridorReport.pdf>

The UK, one of the leading global FinTech centres and blueprints for the rest of the world, has had success spurring FinTech innovation through the Financial Conduct Authority (FCA) creating industry sandboxes for the FinTech sector. A sandbox is a testing environment that isolates new code or experimentation from a production environment.²⁷ According to the TFSA, a regulatory sandbox is “a safe space in which businesses can test innovative products, services, business models and delivery mechanisms without immediately incurring all the normal regulatory consequences of pilot activities.”²⁸ A recent consultation by the UK’s FCA has found that industry sandboxes can help advance innovation and accelerate and promote collaboration in the FinTech ecosystem.²⁹ Canadian regulators have recently launched similar sandbox initiatives, both at the federal and provincial levels.

Earlier this year, the CSA launched the “Regulatory Sandbox Initiative” in order to allow innovative Canadian businesses to operate exempt from some rules. The CSA will assess each business model on a case-by-case basis, and businesses that are considered to participate in the initiative could be permitted to test their products throughout the Canadian market.³⁰ Examples of eligible business models to the CSA’s sandbox include online lenders, cryptocurrency and distributed ledger technology ventures, which will help to support the progression of the Canadian FinTech sector.

Additionally, the OSC’s “LaunchPad” was recently launched, which aims to provide helpful information and direct support for Canadian FinTech firms in an effort to help navigate regulatory requirements.³¹ Initiatives like this help FinTech companies get to market sooner, so these are welcome developments to modernize regulation to support the growth of the FinTech sector.

4. Global Engagement

Canada is often criticized for the lack of global interest it generates in its technology ecosystem, and it is definitely an area we need to work on directing more attention to in an effort to make Toronto and Canada an attractive FinTech destination for global firms. This fall, Sibos – the

²⁷ “Industry Sandbox Consultation Report.” Innovate Finance.

<http://industrysandbox.org/report-view/>

²⁸ “Review of the Federal Financial Sector Framework.” Toronto Financial Services Authority. November 2016.

https://www.tfsa.ca/resources/pdf/TFSA_Submission_Financial_Framework_Review_Nov_2016.pdf

²⁹ “Innovate Finance.” <http://new.innovatefinance.com/#!/about>

³⁰ “The Canadian Securities Administrators Launches a Regulatory Sandbox Initiative.” February 23, 2017. Accessed May 5, 2017. <https://www.securities-administrators.ca/aboutcsa.aspx?id=1555>

³¹ “OSC Launchpad.” <https://www.osc.gov.on.ca/en/what-you-need-to-know.htm>

world's leading financial services industry conference – is coming to Toronto this October. This presents a significant opportunity to shine the light on Canada, and specifically Toronto's, FinTech ecosystem, as well as generating investment interest and enabling conversations around prospective global collaboration and partnership possibilities. China, for example, is going to have its largest bank representation at Sibos yet.³² As the world's largest FinTech market and a nation Canada has been exploring opportunities for collaboration with, Sibos provides a great meeting place for knowledge exchange and Canada should ensure that appropriate representation from the government, regulators, financial institutions and FinTech startup spaces have a presence at Sibos to make the most of the opportunities it could bear.

Earlier this year, the OSC signed a FinTech agreement with UK regulator the FCA to support one another in referring innovative FinTechs to the other's markets to accelerate market entry.³³ The OSC has signed a similar agreement with the Australian regulators as well. However, Canada should be engaging in such agreements at the national level to support FinTech growth cross-country.

Canada has been sending FinTech delegations to the UK in recent years to create opportunities for networking with FinTech peers and investors and possible expansion into other markets for Canadian firms. Canada has an upcoming delegation heading to London Tech Week in June.

5. The Blockchain Opportunity

With significant recent international interest in the Tapscott's *Blockchain Revolution* book and the subsequent announcement of the Blockchain Research Institute³⁴, and Toronto's Blockchain Meetup groups nearly outgrowing the MaRS space, with well over 1,000 attendees at the recent May 8th meetup (attended by the OSC among other financial services professionals and innovators) it is clear that there is an appetite in Toronto for blockchain technology.

³² "Sibos draws an unprecedented numbers of Chinese financial institutions to Toronto." Sibos. May 8, 2017. Accessed May 15, 2017. <https://www.sibos.com/media/news/sibos-draws-unprecedented-number-chinese-financial-institutions-toronto>

³³ Langton, James. "OSC, FCA sign FinTech agreement." Investment Executive. February 22, 2017. Accessed May 5, 2017. <http://www.investmentexecutive.com/-/osc-fca-sign-FinTech-agreement>

³⁴ Brait, Ellen. "Toronto-based blockchain institute launched." The Star. March 17, 2017. Accessed May 15, 2017. <https://www.thestar.com/business/2017/03/17/toronto-based-blockchain-institute-launched.html>

The “Towards a FinTech Strategy for Canada” Report has recommended that Canada work to identify niche areas where it can develop a specialization and comparative advantage, and Blockchain seems to be emerging as one such niche.³⁵

Opportunities & Recommendations

1. A National FinTech Strategy for Canada.

First and foremost, Canada needs a national FinTech strategy. This is an important guiding tool to helping Canada to prioritize and identify potential technology niches and comparative advantages within its existing FinTech ecosystem, and to understand future opportunity areas. It will also help to align public sector support to incentivize innovation.³⁶ In creating this national strategy, Canada should assemble a national FinTech advisory committee, like the OSC and AMF have done in Ontario and Quebec. This will ensure the strategy will be well-informed by gathering information on trends, opportunity areas, challenges and investment priorities to feed into the national strategy to ensure it is appropriately aligned with existing FinTech activity and opportunity areas Canada should focus on nurturing within the sector. Professor Michael R. King, Co-Director of the Scotiabank Digital Banking Lab at Ivey Business School recently drew attention to the fact that Canada’s Budget 2017 only makes mention of FinTech three times, despite the financial sector representing 7 per cent of GDP and 4.4 per cent of all jobs in Canada, and that this is indeed an oversight.³⁷ We need a distinct national FinTech strategy with its own budget and mandate to drive forward this sector and leverage the opportunities before Canada falls behind.

2. A Voice for the FinTech Sector.

In the recent Accenture report for the TFSA, one of the three key characteristics identified across successful global FinTech hubs was government openness to creating a strong and collaborative environment that incentivizes innovation for FinTechs and financial institutions, and that having a central FinTech function or sector “champion” can be helpful in driving a

³⁵ King, Michael & Young, Amelia. “Towards a FinTech Strategy for Canada – Background Briefing.” November 2016.

https://www.ivey.uwo.ca/cmsmedia/3775235/briefingnote_king_young_final_161118.pdf

³⁶ “Seizing the Opportunity: Building the Toronto Region into a Global FinTech Leader.” Toronto Financial Services Alliance. 2017.

<http://tfsa.ca/storage/reports/BuildingTheTorontoRegionIntoAGlobalFinTechLeader.pdf>

³⁷ <http://www.theglobeandmail.com/report-on-business/rob-commentary/as-countries-develop-strategies-we-need-a-FinTech-champion/article34983568/>

national FinTech strategy forward.³⁸ This echoes the findings of the University of Toronto's 2015 IPL Report and the recommendations of the Tapscott's around Canada's Blockchain rhetoric. While Canada hosts many of the right ingredients for a thriving FinTech ecosystem, the potential is currently not being realized. Canada needs a unifying voice for the FinTech industry, acting as a single point of access and champion for the sector. This new industry body's role would include convening regulators, financial institutions, policymakers and FinTechs to understand the needs of the nascent sector, advocating for policy and regulatory change, and promoting investment to drive domestic and global growth for Canadian FinTech.

The 2016 EY report on the UK's FinTech ecosystem titled "UK FinTech: On the cutting edge – An evaluation of the international FinTech sector" identified talent, policy, capital, and demand as the four key ingredients to a successful FinTech ecosystem. Within the policy realm, "sector growth initiatives" was highlighted as a key factor for a healthy FinTech sector. Reports on Canada's FinTech sector to date have highlighted that we are lacking a single champion for the sector, and that Canada is at risk of pursuing a silo approach similar to the USA or China rather than a target approach like the UK, Australia, Hong Kong or Singapore.³⁹

Thus, our key policy recommendation includes the creation of an industry or trade association for the Canadian FinTech sector, modelled after the UK's *Innovate Finance*. This initiative should be an independently-run nonprofit organization, backed by Innovation, Sciences and Economic Development Canada, the most appropriate branch of the federal government to engage with a nascent technology sector, and additional key stakeholders should include but are not limited to:

- Canadian Securities Administrators (CSA)
- Provincial Regulators
- Payments Canada
- All 5 Banks should have representation
- Representatives from the FinTech sector (entrepreneurs)
- MaRS, Ryerson DMZ and other key representations from the innovation hub sector
- Academics (i.e. representation from the University of Toronto's Innovation Policy Lab, or from the university partner that the Blockchain Research Institute eventually identifies).

The association should be a membership-based model, with tiered pricing to accommodate the early-stage FinTech firms who would pay the lowest annual fees, to financial services institutions who would be required to pay the largest annual membership fees. These fees

³⁸ "Seizing the Opportunity: Building the Toronto Region into a Global FinTech Leader." Toronto Financial Services Authority. 2017.

<http://tfsa.ca/storage/reports/BuildingTheTorontoRegionIntoAGlobalFinTechLeader.pdf>

³⁹ King, Michael & Young, Amelia. "Towards a FinTech Strategy for Canada – Background Briefing." November 2016.

https://www.ivey.uwo.ca/cmsmedia/3775235/briefingnote_king_young_final_161118.pdf

would give the association the funds needed to hire staff to be responsible for further membership growth, curating an annual Canadian FinTech Summit (this could move locations each year), advocate for policy and regulatory change, and act as points of contact for the single access point to Canada's FinTech sector that this association would represent.

The establishment of a convening voice or trade association-type of body could provide the necessary bridges between the existing elements of a strong FinTech sector. Vancouver's Digital Finance Institute appears to be working to create such a body, the FinTech Association of Canada, but its traction to date is unclear and it appears to be housed in a law firm, therefore serving that firm's interests rather than the sector as a whole. Further, it is not clear what stakeholders are involved and whether the initiative is well-weighted in terms of cross-Canada representation, industry, regulators, innovators, and financial institutions, all of which need to be involved to appropriately represent the sector.

Conclusions & Next Steps

Given the initial policy recommendations outlined above, the next steps for the FinTech chapter of the Creating Digital Opportunity project will include interviews with Canadian FinTech entrepreneurs, as well as asking them to participate in a survey that will ask them for their ideas and suggestions or policy prescriptions to support their business expansion plans. We also hope to convene a roundtable discussion at the Munk School to bring together FinTech professionals, academics and economists, as well as and business journalists to discuss FinTech and Blockchain opportunities in Canada.

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