

Fintech Innovation: A Digital Opportunity Beyond Finance



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Agenda

- ▷ Fintech Globally
- ▷ Fintech in Canada
- ▷ Blockchain: Challenges & Opportunities
- ▷ Policy Recommendation
- ▷ Q & A

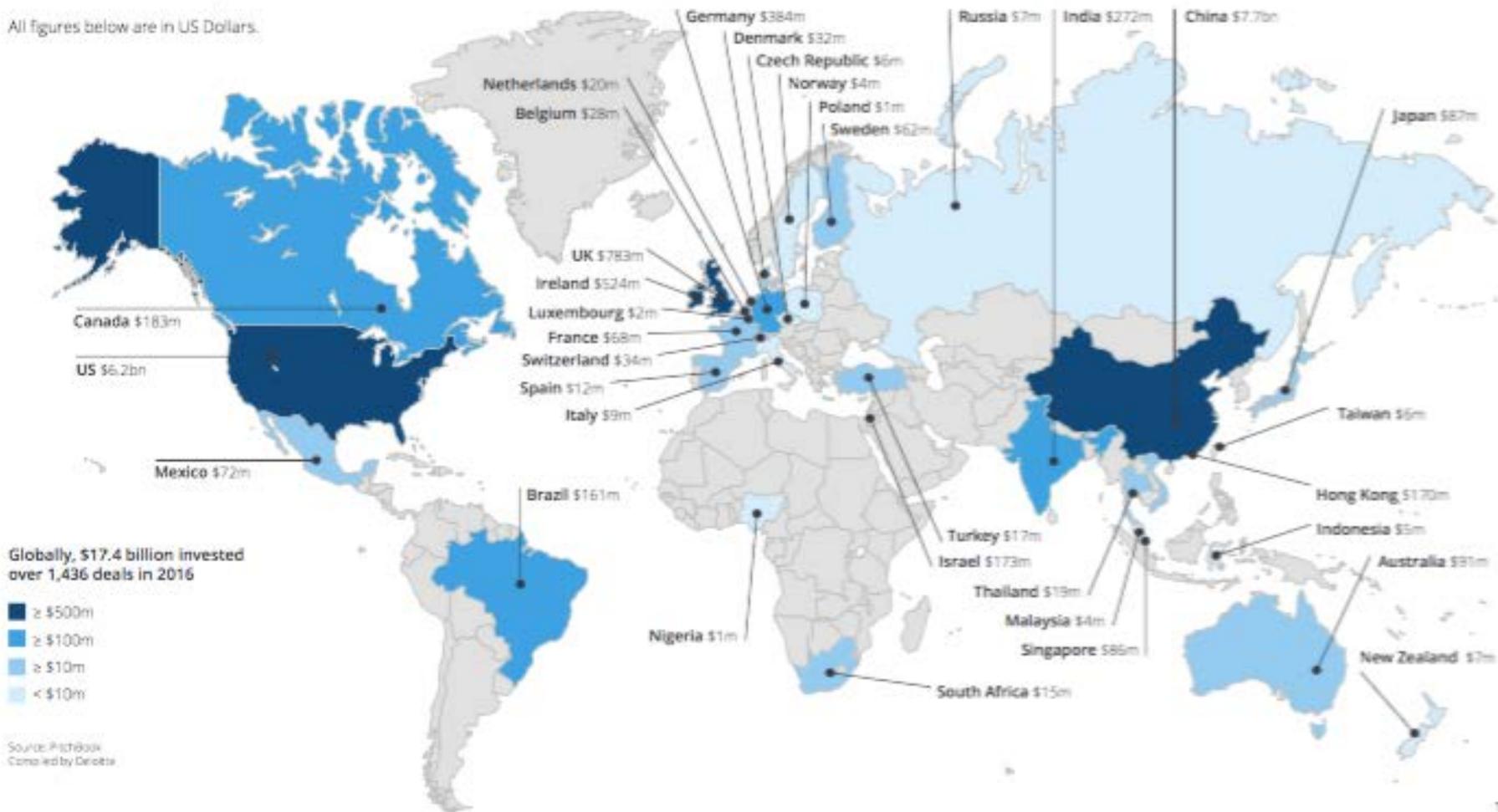
Fintech Globally

- ▷ \$25B global fintech market in 2015 (Cap Gemini's "World Fintech Report 2017")
- ▷ London, UK – Fintech industry as global standard
- ▷ China as world's largest Fintech market
- ▷ Central banks in England, US, Canada, China, Sweden, Singapore experimenting with Central Bank Digital Currencies (CBCDs)
- ▷ Paris. Frankfurt. Berlin → Next Fintech Hub in EU?

Global FinTech VC deal value 2016

The map below shows the 2016 global FinTech deal values for countries covered by this Interim report. Note that Bahrain, Hungary, Kenya and UAE had deal values less than \$1 million and therefore were not included in the map below.

All figures below are in US Dollars.





“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.”

-Mark Carney - Governor, Bank of England

Fintech in Canada



ZAFIN



Lending Loop

Financeit

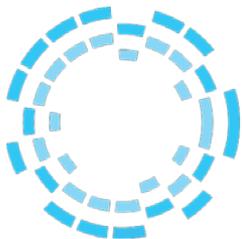


Live well. Save well.
Borrowwell

Wealthsimple

LENDINGARCH

Trulioo
The Identity Bureau



Blockstream



lendified

Fintech in Canada

- ▷ Heavy P2P focus in Canada to date
- ▷ Bank of Canada's *Project Jasper*
- ▷ CSA "Regulatory Sandbox Initiative"
- ▷ IBM & SecureKey Technologies
- ▷ MaRS, Ryerson DMZ, One Eleven, DFI
- ▷ Blockchain Canada Meetups



“While the GTA has all the necessary components for a dynamic and thriving Fintech ecosystem, they are weakly linked. The consequence is that the parts do not currently add up to an effective ecosystem. In short: we have many of the essential parts, but are missing the system.”

– IPL Report, November 2015

An Opportunity: Blockchain

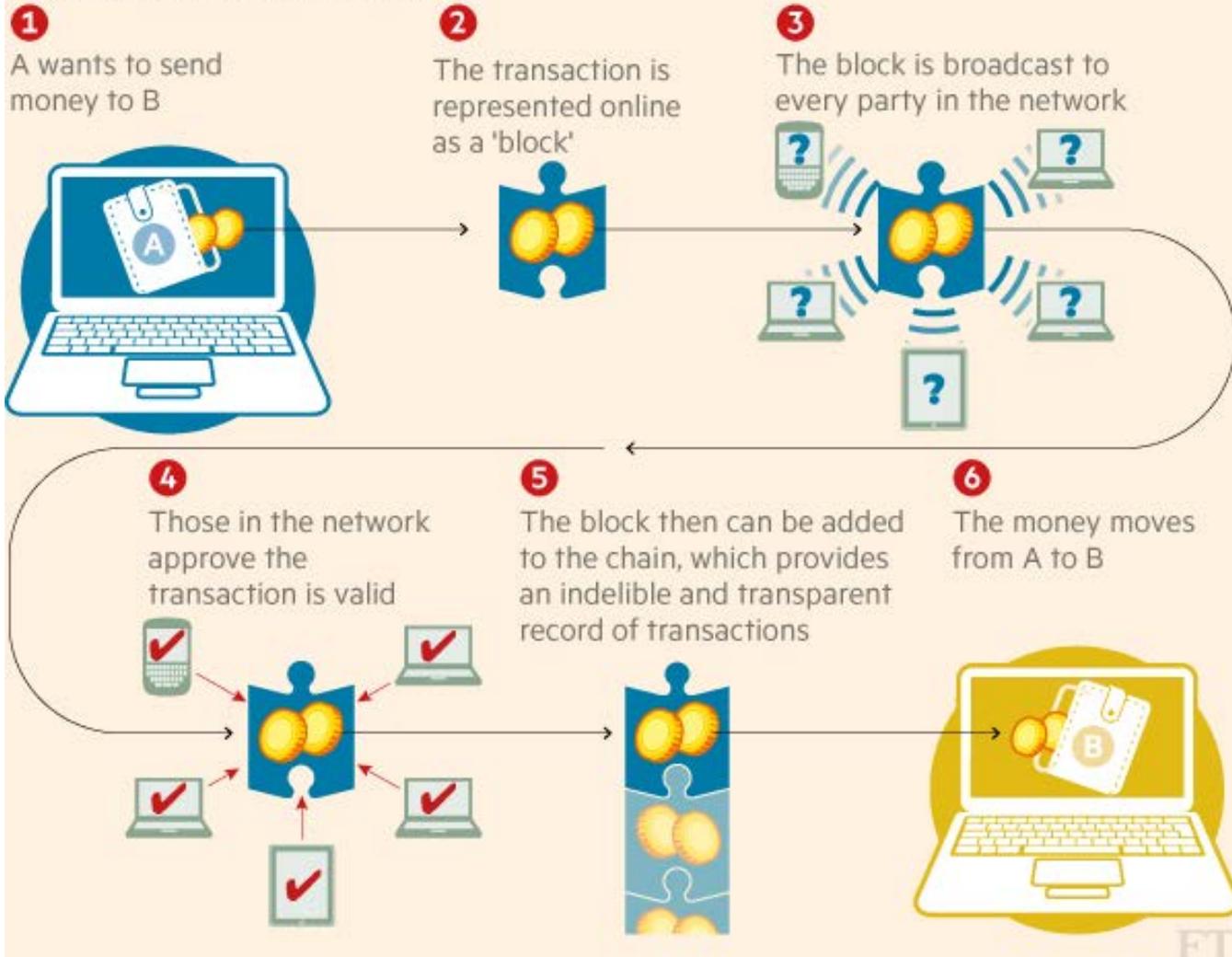


“It’s hard not to be fascinated by something so transformative. This technology is being used in ways that have implications for central banking that span all the functions that we have.” – Carolyn Wilkins, Senior Deputy Governor of the Bank of Canada

“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)

Understanding Blockchain

How a blockchain works



Blockchain use cases list by industry

Financial

Trading
Deal origination
POs for new securities
Equities
Fixed income
Derivatives trading
Total Return Swaps (TRS)
2nd generation derivatives
The race to a zero middle office
Collateral management
Settlements
Payments
Transferring of value
Know your client (KYC)
Anti money laundering
Client and product reference data.
Crowd Funding
Peer-to-peer lending
Compliance reporting
Trade reporting & risk visualizations
Betting & prediction markets

Insurance

Claim filings
MBS/Property payments
Claims processing & admin
Fraud prediction
Telematics & ratings

Media

Digital rights mgmt
Game monetization
Art authentication
Purchase & usage monitoring
Ticket purchases
Fan tracking
Ad click fraud reduction
Resell of authentic assets
Real time auction & ad placements

Computer Science

Micronization of work (pay for algorithms, tweets, ad clicks, etc.)
Expanse of marketplace
Disbursement of work
Direct to developer payments
API platform plays
Notarization & certification
P2P storage & compute sharing
DNS

Medical

Records sharing
Prescription sharing
Compliance
Personalized medicine
DNA sequencing

Asset Titles

Diamonds
Designer brands
Car leasing & sales
Home Mortgages & payments
Land title ownership
Digital asset records

Government

Voting
Vehicle registration
WIC, Vet, SS, benefits, distribution
Licensing & identification
Copyrights

Identity

Personal
Objects
Families of objects
Digital assets
Multifactor Auth
Refugee tracking
Education & badging
Purchase & review tracking
Employer & Employee reviews

IoT

Device to Device payments
Device directories
Operations (e.g. water flow)
Grid monitoring
Smart home & office management
Cross-company maintenance markets

Payments

Micropayments (apps, 402)
B2B international remittance
Tax filing & collection
Rethinking wallets & banks

Consumer

Digital rewards
Uber, AirBNB, Apple Pay
P2P selling, craigslist
Cross company, brand, loyalty tracking

Supply Chain

Dynamic ag commodities pricing
Real time auction for supply delivery
Pharmaceutical tracking & purity
Agricultural food authentication
Shipping & logistics management

Regulatory Challenges

- ▷ Regulation must remain relevant so as to not stifle innovation
- ▷ Wide agreement on fragmented regulatory environment and government policies as barriers impeding Canada's leadership

The “Second Digital Age”

- ▷ Blockchain is for the transfer of value what the internet has been for the transfer of information
- ▷ Blockchain and DLT still nascent technology; innovators are constantly improving it
- ▷ Applications of blockchain beyond bitcoin and financial services is significant
- ▷ Ability of governments to control and regulate financial transactions is shifting; regulators, governments, policy makers, innovators and financial institutions must work closely to shape the regulatory environment moving forward

- ▷ ***Canada has many of the right ingredients to emerge as a global leader in fintech, but we need to create an effective policy framework to realize this potential.***

Policy Recommendation

- ▷ Canadian Fintech industry needs a unified, convening voice to bridge the gap between traditional financial institutions, regulators and innovators and act as a single point of access
- ▷ Policy makers, financial institutions, regulators, startups & innovators, incubators & accelerators, academia
- ▷ E.g. UK's *Innovate Finance*

Next Steps

- ▷ Interview Canadian fintech innovators
- ▷ Conduct regulatory analysis

Thank you!

Q & A

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Additional Resources

Understanding blockchain:

- ▷ <https://www.youtube.com/watch?v=r43LhSUUGTQ>
- ▷ <https://www.youtube.com/watch?v=YIVAluSL9SU>
- ▷ <https://bitcoin.org/bitcoin.pdf>

Interesting Case Studies:

- ▷ Estonian Gov't – Citizen ID
- ▷ Brazil & Sweden – Land Registry
- ▷ Lebanon – Syrian Refugee ID

