



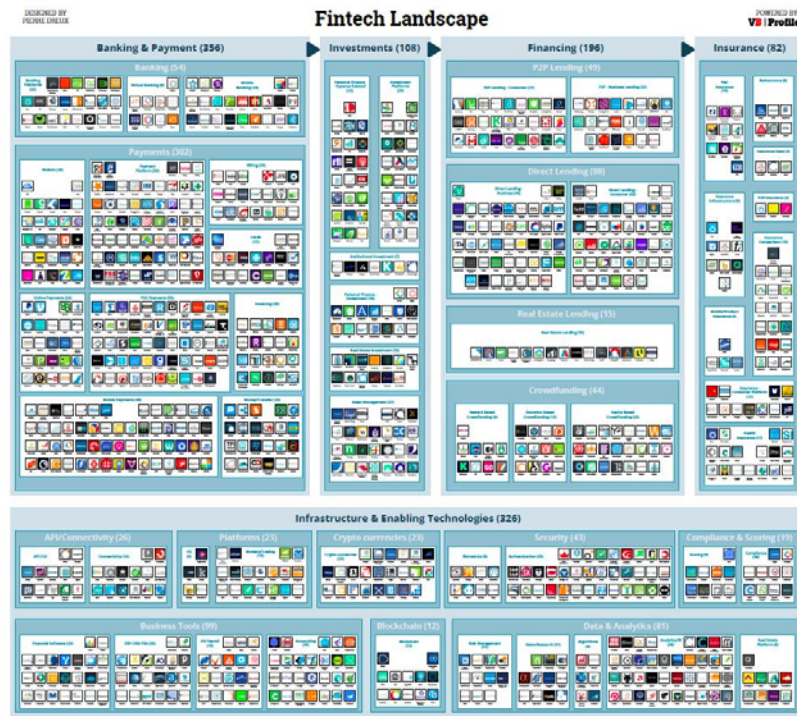
Better together: Is FinTech a disruptor or an enabler?

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SWIFT Business Forum Canada,

March 22, 2017

FinTech: the **digital** delivery of **financial products & services** through the **internet** or a **mobile phone**



In USA alone:
 1000+ Companies
 \$105 billion in funding
 (2015 \$38 billion
 2014 \$17.8 billion)

 \$870 billion
 market value

Source: Citibank (March 2016) "Digital Disruption – How FinTech is Forcing Banking to a Tipping Point"

3x3 framework for analysis

Distinguish three business segments:

1. **Products & services**: digital currencies, peer-to-peer lending, crowdfunding, robo-advisors, insurtech, real estate, accounting, etc.
2. **Infrastructure & platforms**: payments & money transfer, blockchain, capital markets, cybersecurity, digital ID
3. **Regulation & procurement**: RegTech, ProcTech

Distinguish three types of businesses:

1. **B2C**: FinTech startups targeting *households / retail* that are looking to **disrupt** incumbents or serve new segments (i.e. Mogo, Lending Club)
2. **B2B**: FinTech startups providing IT solutions to *incumbents*, looking to **partner** (e.g. Sensibill, R3)
3. **C2C**: Customers transferring funds internationally, incl. remittances

Is FinTech a disruptor or an enabler?

- **Disruptor**: something that prevents something a system, process, or event from continuing as usual (or as expected)
 - e.g. Air travel was disrupted after Eyjafjallajökull erupted in 2010.
- **Enabler**: something that makes it possible for a particular thing to happen or be done
 - e.g. Technology is an enabler for better customer experiences.
- FinTech is a **Cost** disruptor, a **Revenue** disruptor & a **Revenue** enabler

Background: Financial targets for Big 6 banks



Scotiabank
Digital Banking Lab

- Canada's banks communicated targets for **earnings growth of 5%-10% p.a.**
 - Maintain **ROE of 14%-20%**, **high dividend payouts** and **strong capital ratios**
 - Canada's **GDP forecast to grow below 2% p.a.**; world GDP 3.0-4.0% p.a.
 - Canadian households at historically **high levels of debt to disposable income**
 - Foreign banking markets feature **high competition**

Financial Target	RBC	TD	BNS	BMO	CIBC	NBC
EPS Growth	7%+ (diluted)	7-10%	5-10%	7-10% (adjusted)	5%+ (diluted)	5-10% (diluted)
ROE	16%+	Above peer return	14%+	15%+	15%+	15-20%
Operating Leverage	-	Positive	Positive	2%+	-	-
Efficiency Ratio	-	-	50% by 2021	-	55% by 2019	-

Source: company annual reports.

How to achieve targets in slow growth world?



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FinTech provides the means to pursue four strategies:

1. Maintain profit margins by reducing **costs** and **increasing efficiency**
2. Grow **revenues** by **cross-selling** higher margin, less capital intensive businesses (e.g. wealth management, insurance)
3. Grow **revenues** by finding a **cost**-effective way to provide banking services to **new customer segments**
4. Grow **revenues** by **expanding into global markets** with a low-**cost**, superior product offering

FinTech as **COST** disruptor

- Banks have been **reducing costs by automating** standard tasks for many years
 - Both for retail (i.e. ATMs) and wholesale (i.e. straight-through processing)
 - IT investment also focused on internal processes (i.e. reporting, document management, credit checks)
- Bank **efficiency ratios declined but leveled off**; can digital squeeze them lower?
- **Operating leverage slowing or negative** (costs growing faster than revenues)
- FinTech can help banks **lower costs**:
 - **Attract cheaper deposits** online (e.g. Marcus by Goldman Sachs)
 - **Reduce overhead**; fewer branches with **more efficient staff**
 - **Re-engineer** complex, fragmented business processes
 - **RegTech** to manage regulatory burden; **ProcTech** for procurement

FinTech as **REVENUE** disruptor (1)

- FinTech startups have targeted **Personal and SMEs** customer segments
 - Represent 46% of global bank profits
 - Attracted 73% of capital deployed in FinTech sector



- Despite \$17b of investment, only 1% of N. American consumer banking revenue migrated to new digital models → banks remain dominant

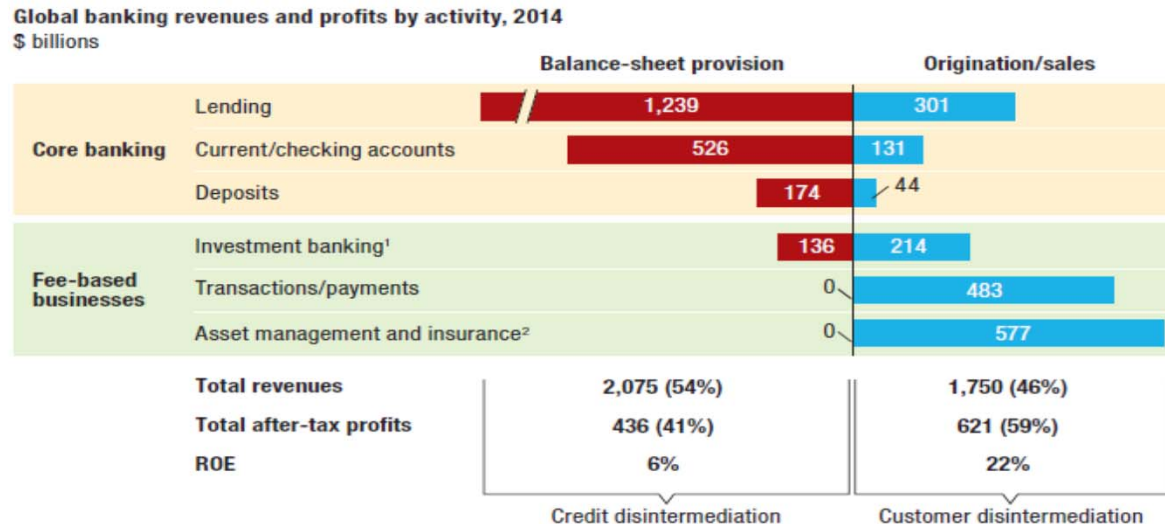
Source: Citibank (March 2016) "Digital Disruption – How FinTech is Forcing Banking to a Tipping Point"

FinTech as REVENUE disruptor (2)

- Media widely reported **60% of bank profits are at risk from FinTechs** – a typical misrepresentation of a statistic.

Exhibit 3

Origination and sales – the focus of non-bank attackers – account for ~60% of global banking profits



¹ Corporate finance, capital markets, securities services

² Asset management includes investment and pension products. Insurance includes bank-sold insurance only.

Source: McKinsey Panorama – Global Banking Pools

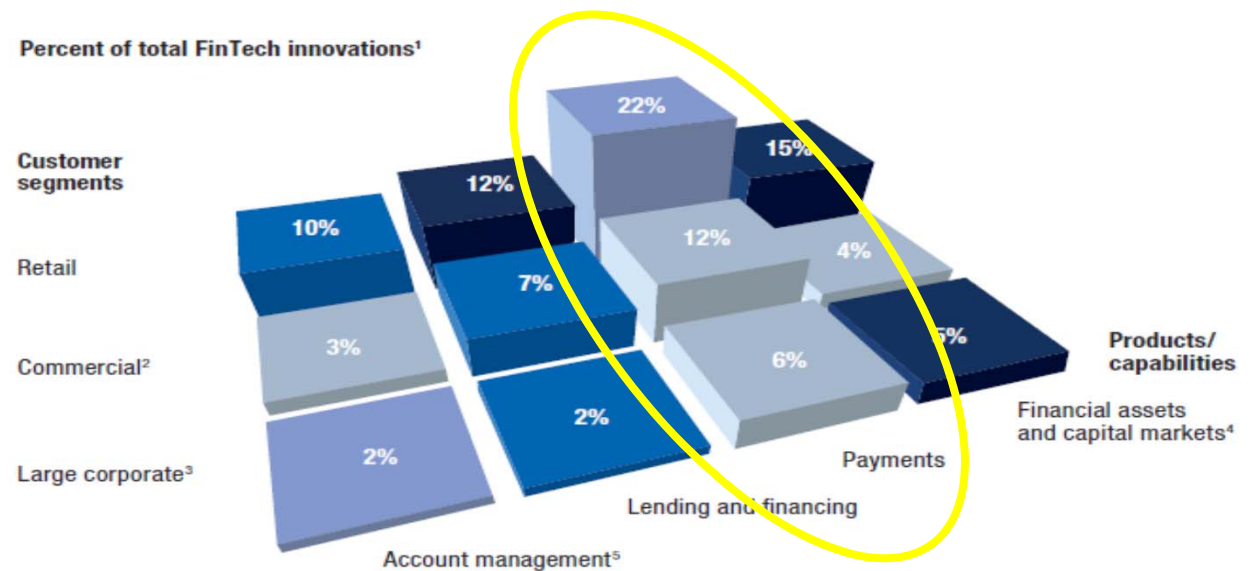
Source: McKinsey & Co (Dec 2015) “Cutting Through the FinTech Noise: Markers of Success, Imperatives For Banks”

FinTech as **REVENUE** disruptor (3)

- Many start-ups staffed / backed by ex-bankers who understand weak spots
- Tech giants seizing opportunity (Alibaba, Tencent, Apple, Google, FB, etc.)
- Best opportunity to disintermediate clients appears to be retail payments

Exhibit 2

FinTechs are making significant inroads into retail banking



Source: McKinsey & Co (Sept 2016) "Radically simplifying the retail bank"

FinTech as **REVENUE** disruptor (4)

- But **barriers to entry remain high**
 - Customer acquisition
 - Stable funding sources
 - Regulatory hurdles (and eventually compliance)
 - Trust and cybersecurity
 - Talent access and retention

FinTech as **REVENUE** enabler



- FinTech start-ups form **partnerships** with deep-pocketed incumbents
 - Scotia / Kabbage, CIBC / Borrowell, Power Finl / Wealth Simple, JPMorgan / OnDeck
 - Successful FinTech startups **'white label'** innovative customer offerings
 - Banking and financial services become more affordable / accessible
- Tech giants push into 'shadow banking' using **superior customer analytics** to sell financial products (payments, P2P, robo-advice)
- Banks collaborate to create **new standards + barriers to entry** (R3, Ripple)
- Regulators play catch-up

How are Canadian banks collaborating?



“The majority of current Scotiabank engagements with FinTechs are related to enabling technologies, mobile payments, or adding customer features across our global footprint.”

How are Canadian banks collaborating?



Project Jasper (CAD-coin)



- Last year, Scotiabank participated in **Project Jasper** to develop a wholesale payment settlement system enabled by ***distributed ledger technology (DLT)*** – prototype for a shared database for interbank payments
 - Scotia worked with multiple stakeholders: Bank of Canada, Payments Canada, R3, & 5 Canadian financial institutions
- Project Jasper explores how DLT could be used as part of Canada’s payments system; promotes **innovation within the ecosystem**.
- Marked a significant milestone in the payments industry. One of first times that a **central bank participated** in a DLT experiment with private sector.
- **Phase I**: DLT prototype was built to investigate use of central bank-issued digital depository receipts in lieu of cash to support interbank settlement
- **Phase II**: Build a new DLT prototype to exchange digital depository receipts on [R3’s Corda platform](#).

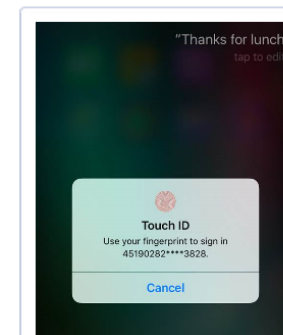
RBC Example: ApplePay and Siri



RBC first Canadian bank to launch *Interac* e-Transfer® using Siri

New RBC Mobile app capability further strengthens RBC's market leading position in the payments and mobile space

TORONTO, March 7, 2017 - Sending money is now as easy as saying "Hey Siri, send Pat \$20", as Royal Bank of Canada ("RBC") launches money transfers with Siri for its personal banking clients. This innovative money transfer solution is now available through an update to the RBC Mobile app for iPhone and iPad. Building on its market leading, free person-to-person money transfer services for chequing account clients launched last year, RBC continues to develop simple and innovative ways for clients to make payments and bank with their mobile devices.



"It's our goal to continue to be part of the everyday mobile experiences of our clients by adding more convenient and seamless ways to send money and bank with RBC," said Sean Amato-Gauci, executive vice-president, Digital, Payments and Cards, RBC. "Building on the explosive growth of our free person-to-person payments products, we're excited to provide the ability for our clients to now send free money transfers from their chequing accounts using Siri."

Using Siri to send money with RBC

Sending money with RBC is really as simple as it

Also: American Express, ATB Financial, BMO, CIBC, Canadian Tire Bank, Desjardins, PC Financial, Scotiabank, TD

Many FinTechs are pivoting...




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Loan Purpose



Troy Wright

Kevin Clark

WRIGHT AND CLARK

The fintech threat to traditional banking: It's evolution, not revolution

TROY WRIGHT AND KEVIN CLARK

Special to The Globe and Mail

Published Saturday, Jan. 02, 2016 5:00AM EST

Last updated Monday, Jan. 04, 2016 5:13PM EST

Source: <https://www.lendified.com/>

...and partnering with incumbents.



SMALL BUSINESS LOANS COMPANY BUSINESS TOOLS BLOG GET LENDIFIED

STRATEGIC PARTNERSHIPS



Chase Paymentech

Working Together to Help You Grow Your Business.

Lendified has teamed with Chase Paymentech, a global leader of merchant services for more than 30 years, to provide you with competitively priced solutions for payment acceptance. More...

Source: <https://www.lendified.com/>



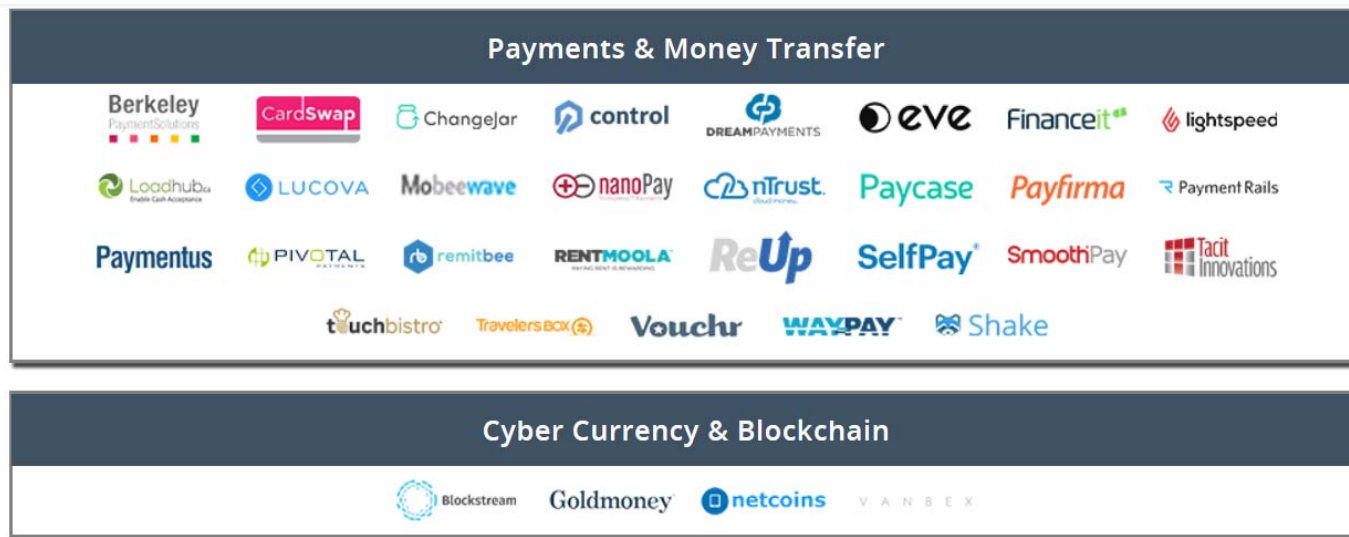
TruShield Insurance

TruShield Insurance offers simple and affordable Small Business Insurance solutions to Canadians.

Whether you're a consultant, contractor, or a retail business owner, your insurance needs are as unique as you are. TruShield offers small business insurance to protect your employees,



Canadian FinTechs in Payments



Source: <http://crowdmatrix.co/home/canadian-fintech-ecosystem/>

Start Up	Capital Raised (\$m)
Lightspeed	126.0
Financelt	38.4
Payfirma	23.5
Touchbistro	23.3
TravelersBox	14.5
nanoPay	10.3
Mobeewave	6.5
RentMoola	5.0
Paymentus	3.6

Lightspeed (Founded 2005, Montreal)



The Globe and Mail Sept 16, 2015: Lightspeed POS Inc. founder and chief executive Dax Dasilva can now boast a total of \$126-million (U.S.) in funding for his increasingly international company that provides **point-of-sale technology to retailers**... Mr. Dasilva, who launched Lightspeed in the city in 2005 after moving here from Vancouver, where he developed the first iteration of software to help retailers **process transactions, manage inventory, track sales and crunch customer behaviour**. ... From its days as a modest startup in 2005, Lightspeed has grown to about 350 employees, 210 of them in the Montreal office with the rest in other locations, including London, Ghent and California.



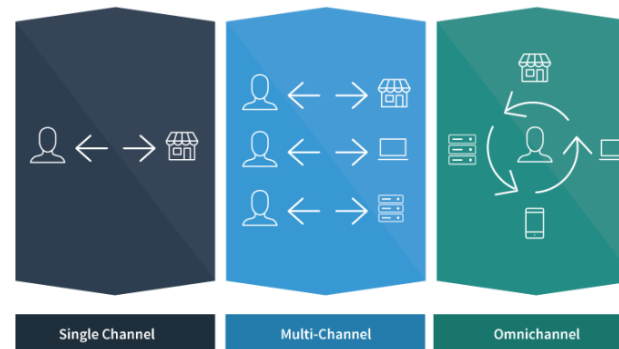
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Omnichannel vs. multi-channel

Multi-channel retailing refers to selling on different platforms. This approach does not involve the integration of online, mobile and in-store services or management systems, nor does it offer a consistent shopping experience to customers.

Omnichannel is one continuous shopping flow, an integration of all sales channels. It's an approach that empowers retailers to efficiently manage all aspects of their business, build a strong and consistent brand and develop stronger customer relationships.



Source: <https://www.lightspeedhq.com/> tel is far greater than

Canadian Payments Modernization

- **Dec 2011**: *Task Force for Payments System Review* presents its final report to Finance Minister, recommending overhaul of Canadian payments system
- “unless Canada develops a modern digital payments system, Canadians will be **unable to fully engage in the digital economy** of the 21st Century, leading to a **lower standard of living** across the country and a **loss in international competitiveness**... [A] thoroughly **modernized payments system could save the Canadian economy as much as two per cent of GDP in productivity gains**, equivalent to \$32 billion in annual savings for Canada”.
- **Apr 2015**: Canadian government launches consultation on oversight of national payments systems, with comments due June 2015.
- **Mid-2015**: Payments Canada began consultations on modernization with 100+ organizations
- **Apr 2016**: Payments Canada sets out vision for Canadian payments ecosystem
- **Nov 2016**: Payments Canada establishes roadmap around 5 initiatives (next slide)
- **May 24-26, 2017**: Payments Canada Summit, Toronto ...Stay Tuned.

Canadian Payments Modernization

A modern payments system is fast, flexible and secure, promotes innovation and strengthens Canada's competitive position.

The Vision identified eight needs of a modern payments system



Faster payment options



Data-rich payments



Transaction transparency



Easier payments



Cross-border convenience



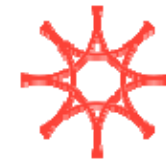
Activity-based oversight



Open & risk-based access



Platform for innovation



**PAYMENTS
CANADA**

- 1 Build a new core clearing and settlement system
- 2 Establish a real-time capability
- 3 Enhance automated funds transfer
- 4 Align with global regulatory standards
- 5 Modernize the rules framework

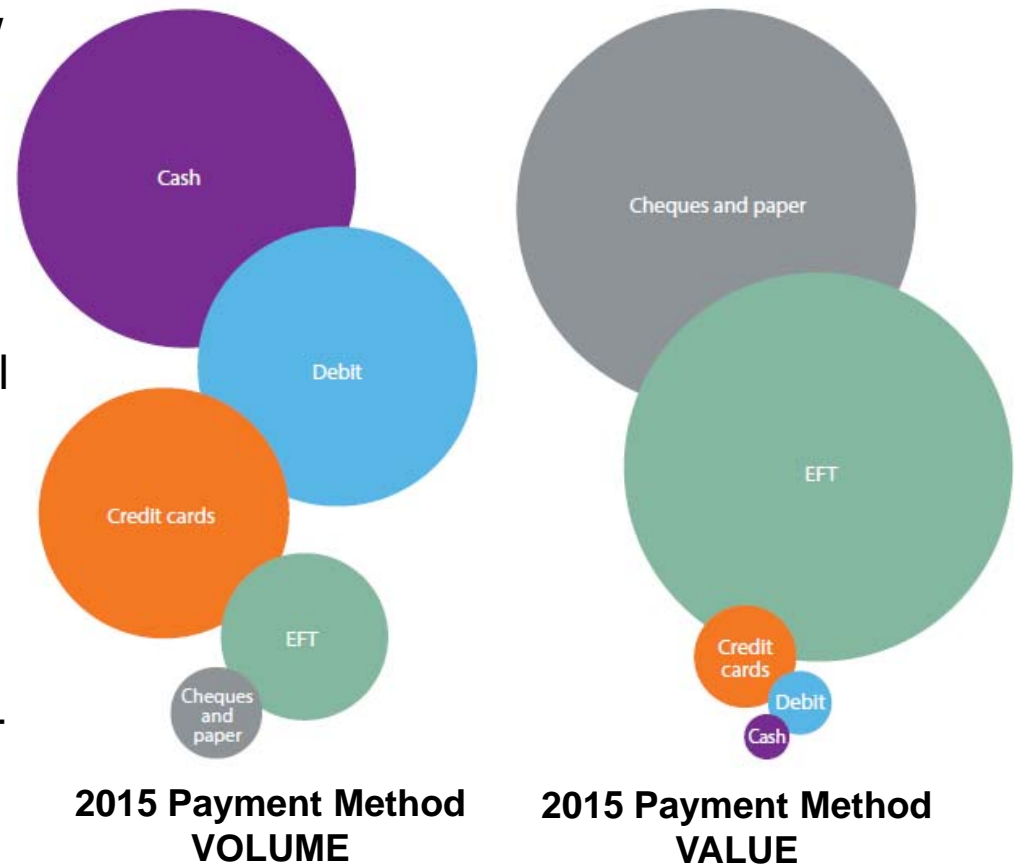
Source: <https://www.payments.ca/modernization/vision-canadian-payments-ecosystem>

How Canadians pay – facts

In 2015, Canada's payments market grew to 20.9 billion transactions worth more than \$8.9 trillion.

Canadians transact in two ways:

- **Point of sale (POS)** via cash, prepaid, debit and credit card; physical or virtual via online & in-app (80% volume, 10% value)
- **Remote transactions** via financial institutions or payment service providers; cheques, electronic funds transfers (EFT) and online transfers (e-wallets, electronic P2P transactions) (20% volume, 90% value)



Source: Payments Canada (2016) [Canadian Payment Methods and Trends](#)

How Canadians pay – trends

- Consumer demands for **speed, convenience and rewards** are driving much of the trends at the point of sale (POS), including card, contactless and e-commerce growth.
- **Credit cards dominate** the POS in value terms, due to rewards, commercial cards and wide use in emerging channels.
- Cash continues to account for the most transaction volume, but **cash use is on a downward trend**.
- In remote transaction environments, **consumers are ahead of commercial entities in using electronic payments**, as commercial entities continue to sustain cheque and paper item use.

Figure 9: Contactless volume and value growth

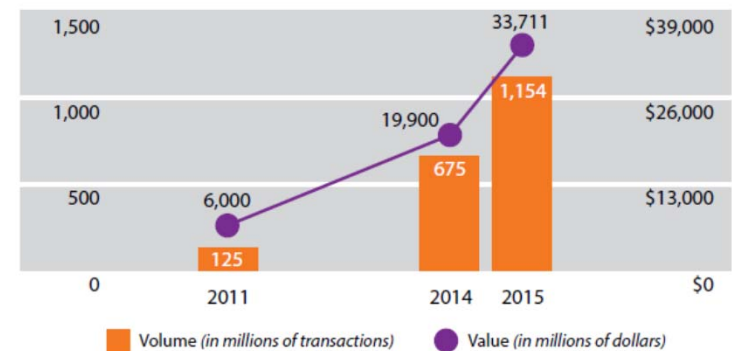
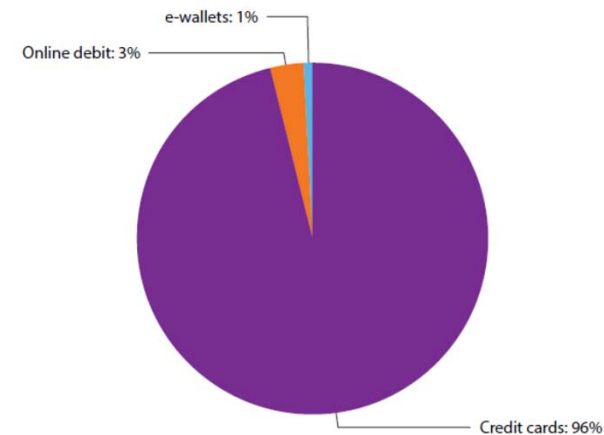


Figure 10: E-commerce transaction value



Source: Payments Canada (2016) [Canadian Payment Methods and Trends](#)

Best Practice from 27 countries

THE FINDINGS

3 GLOBAL INFRASTRUCTURE TRENDS

- Most countries have added a new real-time retail system
- All have enhanced or built a batch retail system
- The majority have made upgrades to their large-value payment systems

5 COMMON ATTRIBUTES IDENTIFIED

- Widening access to core payment systems
- Increased functionality through centralized systems
- Greater interoperability between financial market infrastructures
- Real or near real time access to funds
- Strengthening risk management



Source: Payments Canada (2016) [Clearing and Settlement Systems from Around the World: A Qualitative Analysis](#)

Visit us at:



<http://www.ivey.uwo.ca/scotiabank-digital-banking-lab/>



June 1: Speaker Series – Dino Trevisani, IBM Canada

June 23: The Future of Banking and Financial Services

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