Going Cashless at the Point-of-Sale: Are we there yet?

Kim P. Huynh

[1]Bank of Canada

4 June 2019
12th Conference on Payments and Market Infrastructures
Ohrid, Northern Macedonia

The views expressed are those of the presenter and should not be attributed to the Bank of Canada.
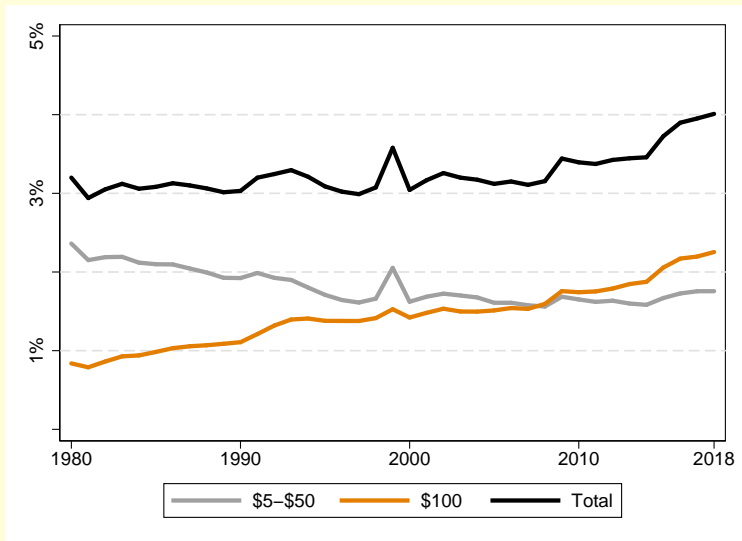
Main Research Project

- 2017 Methods-of-Payments Survey Report
  by: Christopher Henry, Kim P. Huynh and Angelika Welte
  Bank of Canada Staff Discussion Paper 2018-17

Decline in cash shares at POS
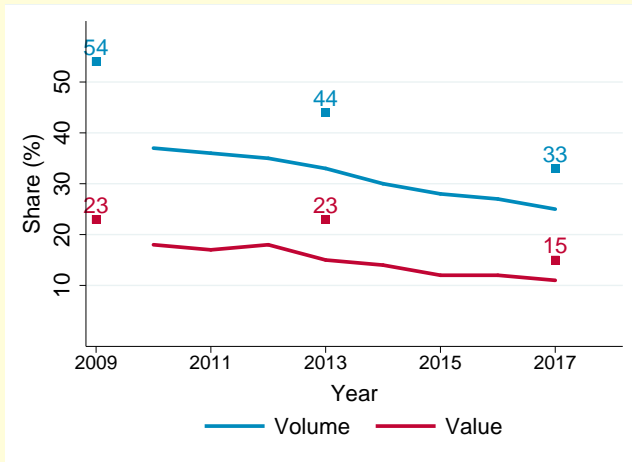
Sources: The annual Canadian Financial Monitor (CFM) survey (↘), along with the Method-Of-Payments (MOP) survey conducted in 2009, 2013, and 2017 (■).
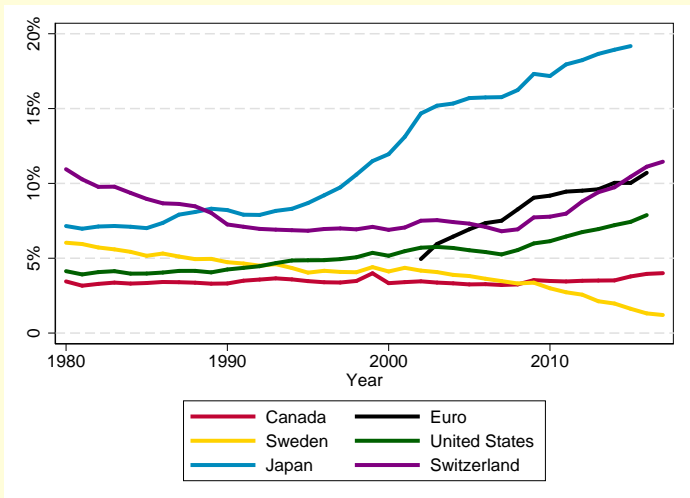
Notes-in-circulation (% of Nominal GDP)

Sources: Notes-in-circulation (BoC) and Nominal GDP (Statistics Canada).

Cash use across countries

Country	Year	Cash Volume Share (%)
USA	2016	31
Canada	**2017**	**33**
United Kingdom	2017	34
Australia	2016	37
Switzerland	2017	70
Eurozone	2016	79

Source: Compiled from various payment diaries.

Notes-in-circulation - Cross Country Comparison

Sources: Bank of Canada (Canada) and Bank of International Settlements' Red Books (other countries).

Possible reasons for ↓ cash at the POS

1. Consumer demand for cash declines:
   - Demographics and stated preferences
   - Alternative payment methods: debit and credit cards
   - Payment innovations: contactless cards and Interac e-Transfers
2. Increase in merchant acceptance of cards:
   - Cash almost universally accepted by all merchants
   - Cards almost universally accepted at Large Businesses
   - Cards accepted by 2/3 Small-Medium Businesses (SMB)
   - A small number of SMBs not accepting cash

Evidence: Data and models

- Structured in-house surveys
  - 2009/2013/2017 Methods-of-Payments (MOP)
  - 2006 Retailer survey and 2015 Cost-of-Payments study
- Monitoring data:
  - Canadian Financial Monitoring survey
  - Bitcoin Omnibus Survey (BTCOS) and other 'on-demand' surveys
- Modeling strategies
  - Demand estimation
  - Equilibrium models
- Focus today: 2017 MOP Survey
 - Transactional and POS

The 2017 MOP Survey Design

- Representative sample of Canadian population age 18+
- Survey Questionnaire (SQ): demographics, banking habits and attitudinal questions. About 3,100 respondents
- Diary Survey Instrument (DSI): 3-day diary for payment choice and reasons. About 2,100 DSI completed
- Major Innovations to the SQ:
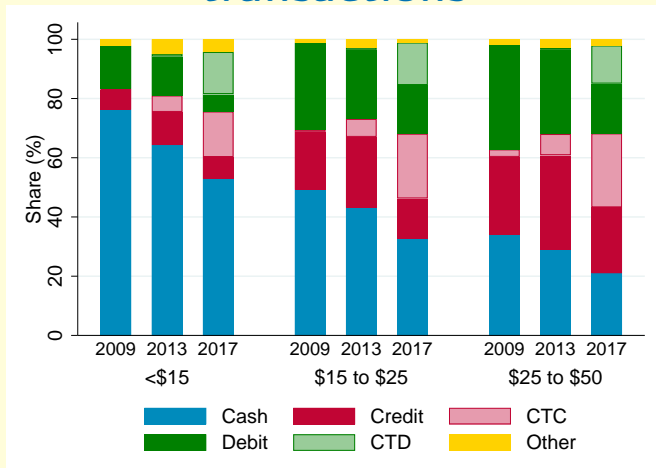
Ubiquitous access to banking services

Card Ownership   # of Cards
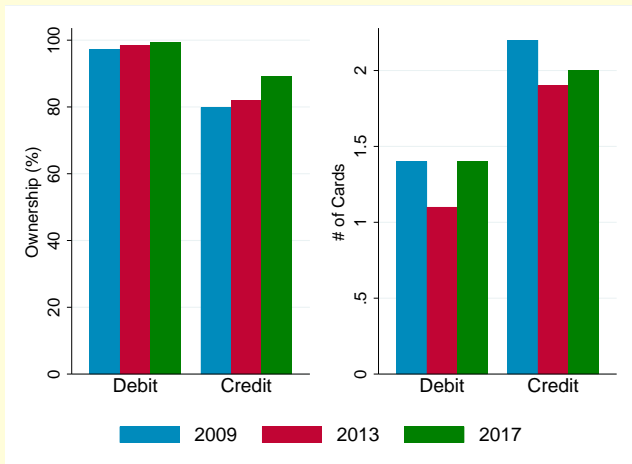
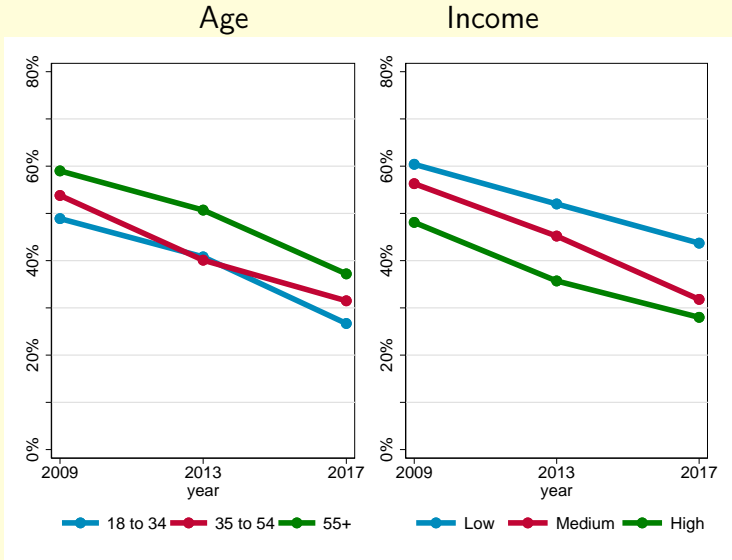Sources: 2009/2013/2017 Methods-of-Payment surveys.

Cash dominates for small-value transactions

Note: Shares are calculated from 3-day diary. The lighter shading for debit (green) and credit (red) refer to the share of respective transactions that were made with contactless payment methods.
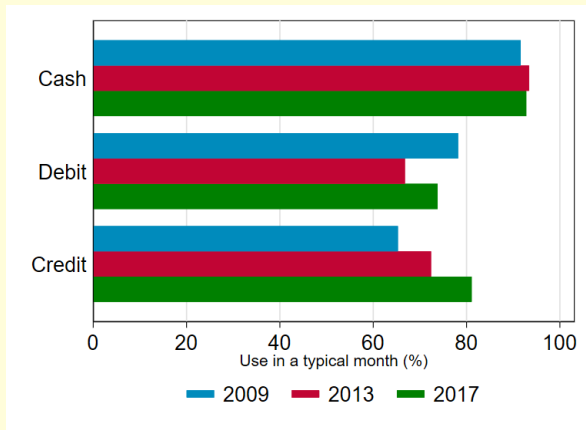Sources: 2009/2013/2017 Methods-of-Payment surveys.

Cash use ↓ for all Age and Income groups

Note: Cash usage as a percent of total transaction volume.
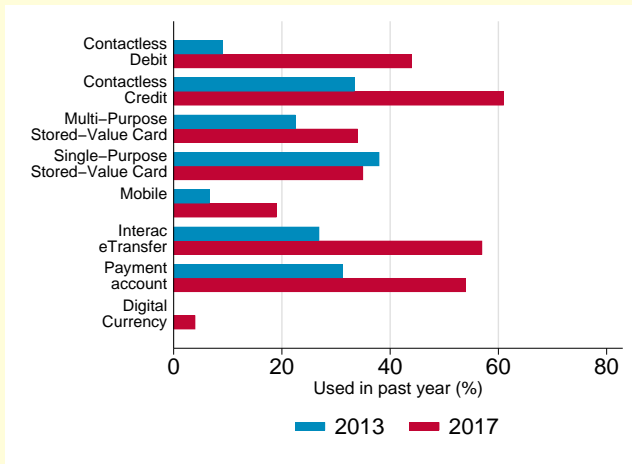Sources: 2009/2013/2017 Methods-of-Payment surveys.

Cash still regularly used in a typical month

Note: Respondents were asked if they used each payment method within the past month.
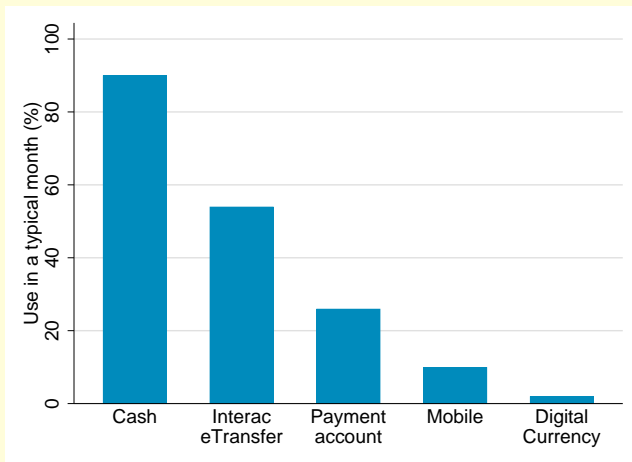Sources: 2009/2013/2017 Methods-of-Payment surveys.

Wider usage of payment innovations

Note: Respondents were asked if they used a payment method to make a transaction within the past year.
Sources: 2013/2017 Methods-of-Payment survey.

Cash & E-Transfer dominate P2P transactions

Note: Respondents were asked if they used a payment method to conduct a person-to-person transaction in the past month.
Source: 2017 Methods-of-Payment survey.

Financial literacy (FinLit)

- Added the **Big Three** questions from Lusardi and Mitchell (OUP, 2011)
  Question 1: Compound interest (86%)
  Question 2: Inflation and savings (64%)
  Question 3: Diversification of risk (58%)

  42% answered all three questions correctly

Low FinLit correlates with higher cash use

	Low	Medium	High	Overall
Cash volume share (%)	36	36	30	33
Cash holdings ($)	$131	$101	$94	$105
ABM withdrawals (# per month)	2.7	2.4	2.1	2.3
Holding $100 note (%)	17	8	5	9

Note: Financial Literacy levels are derived from performance on the "Big Three" questions developed by Lusardi and Mitchell (OUP, 2011).
Source: 2017 Methods-of-Payment survey.

Future Work Studying the Evolution of Cash

- Better understanding the two-sided nature of retail payments
  - Tipping point for merchants and financial institutions to stop accepting cash
- Monitor adoption and usage of Bitcoin and other Digital Currencies
- Understand SoV and high denomination usage of Canadians
- As interest rates normalize, how will consumer's usage of cash respond?

$\implies$ Contribute to CBDC research:

- If cash is disappearing, is it a problem?
- If so, should we consider issuing a CBDC? Engert, Fung, and Hendry (SDP, 2018)

Thanks

Merci

Vi blagodaram

2018 Banknote of the Year!