

# FinTech and Consumer Well-Being in the Information Age

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- ▶ The empirical challenge is to find data on both access to information and economic outcomes, and to deal with endogeneity, reverse causality, and omitted variables
- ▶ Using data from a financial aggregation software, we show that better technology improves decision-making
  - ▶ Logging in one more time per month reduces high-interest unsecured consumer debt by 14 percent over a two-year period
  - ▶ Late fees and other financial penalties are reduced too

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  - ▶ The advantages of using Icelandic data include
    - ▶ Icelanders (almost) never use cash
    - ▶ App is marketed through banks and we have a fairly representative sample
    - ▶ Income and spending are pre-categorized
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- ▶ Before November 2014, access to this personal information only occurred via the internet on a desktop or laptop computer whereas after a smart phone app was introduced

# The financial aggregation app: Screenshots

The image displays three screenshots of a financial aggregation app interface, showing user profile information, transaction history, and a transaction feed.

**Screenshot 1: Edit Profile (17:44)**

Gender: Year of birth: 1984

Adults: Children: 0

House: Size in m<sup>2</sup>: 100

Bedrooms: Cars: 0

Bottom navigation: Life goals, Budget, Activity, Offers, More

**Screenshot 2: Transactions (17:49)**

WEDNESDAY, SEPTEMBER 16

- TAXI DAMIAN - 4,454 kr. (Taxis & Public Transportation)
- Metrostation Islands B - 713 kr. (Planes, Trains and Automobile...)

TUESDAY, SEPTEMBER 15

- Millifært: Tollstjóri 33,341 kr. (Taxes (+ and -))

MONDAY, SEPTEMBER 14

- FOETEX FISKETORVET - 732 kr. (Groceries)

SUNDAY, SEPTEMBER 13

- NETTO AXEL HEIDESG - 78 kr. (Groceries)

SATURDAY, SEPTEMBER 12

- NETTO AXEL HEIDESG - 263 kr. (Groceries)

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**Screenshot 3: Feed (17:50)**

Search  [Refine](#)

- Current 1,134,157 kr. >
- Credit cards - 183,924 kr. >
- Savings 9 kr. >
- Show Only Transactions >

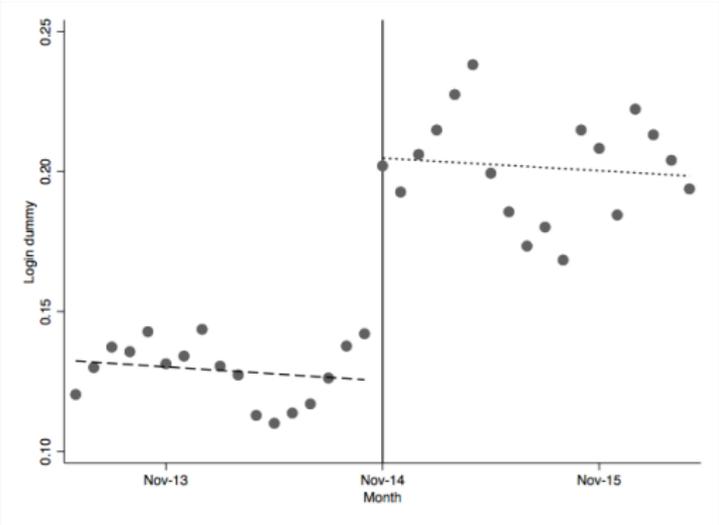
SUNDAY, SEPTEMBER 20

- HOTEL TIROL S.A. - 54,809 kr. (Hotels & Accomodation)
- TAXI EDUARDO GAL... - 4,441 kr. (Taxis & Public Transportation)
- SCHWEIZ. BUNDES... - 1,162 kr. (Planes, Trains and Auto...)

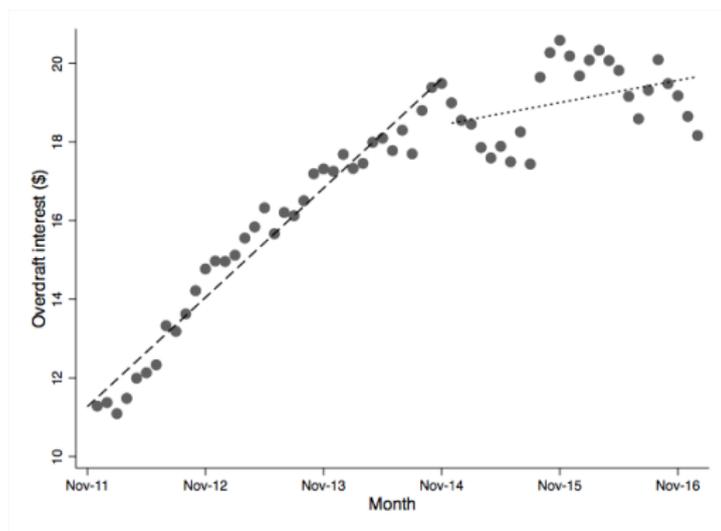
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# Raw data: Logins

Based on the raw data, there is an obvious discontinuity in the propensity of individuals to log into their financial accounts around the introduction of the mobile app

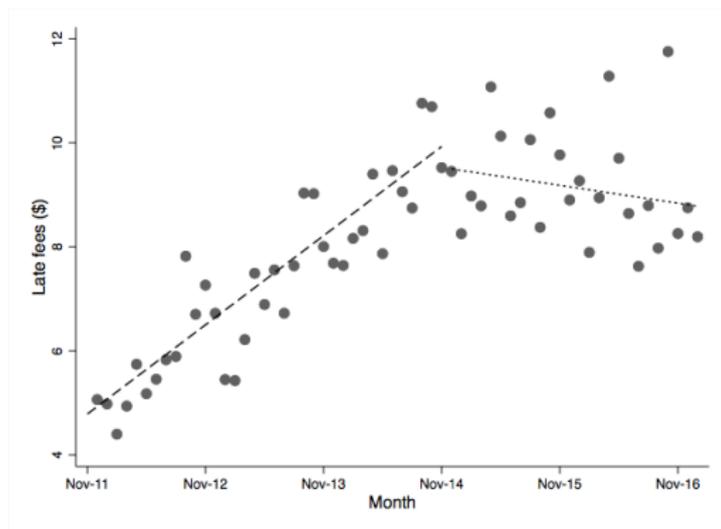


## Raw data: Overdraft interest fees



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- ▶ Complement within-individual identification with a cross-sectional diff-in-diff (DiD) approach

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- ▶ Effects are mainly driven by the reduction in overdraft interest
  - ▶ 176.8 Krona per month for overdraft interest
  - ▶ Based on average \$1,356 overdraft debt and \$13 interest expense per month, this is a reduction of roughly 14%.
  - ▶ 53.2 Krona per month for late fees

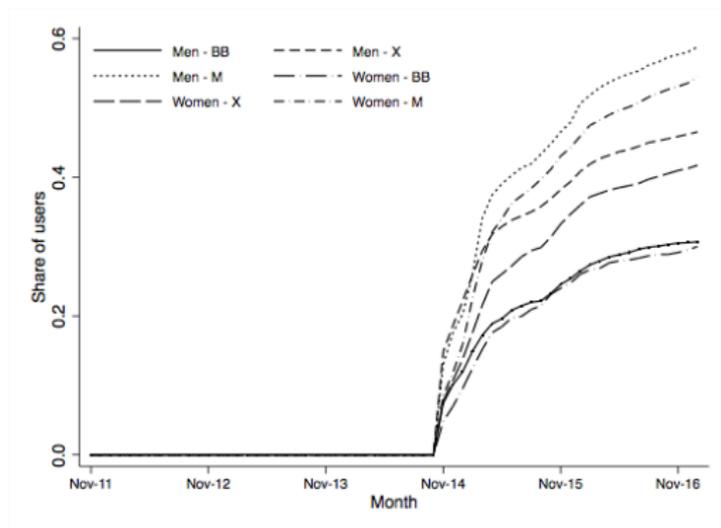
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- ▶ Increase in credit card use versus overdrafts same time
  - ▶ Each additional login associated with a 2.36% increase in fraction of expenditures purchased with credit card
  - ▶ Credit card offers 30-50 day float.

# Generational Differences: App Logins

Millennials > Gen X'ers > Baby Boomers

By 2016, 52% of Millennials versus 27% of Baby Boomers



## Generational Differences: Coholding Puzzle

- ▶ Baby Boomers and Gen Xers incur higher financial penalties than Millennials
  - ▶ Higher overdraft interest
  - ▶ More likely to incur late fees (28.6% and 33.1% versus 18.4%)
  - ▶ More likely to incur NSF fees (31.4% and 39.8% versus 27.4%)

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  - ▶ Higher cash reserves
  - ▶ 1.52 months of discretionary expenditures for Baby Boomers versus 1.09 for Millennials.

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  - ▶ 1.52 months of discretionary expenditures for Baby Boomers versus 1.09 for Millennials.
- ▶ Baby Boomers and Gen Xers have more severe coholding behavior
  - ▶ Higher unnecessary overdrafts (\$150.9 and \$124.5 versus \$81.01)
  - ▶ Higher annual coholding costs (\$19.98 and \$16.49 versus \$10.73)

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  - ▶ Empirically important given the growth of on-line education, social learning, and electronic access to information
- \* Implications for people of different generations
  - ▶ Different adoption rates and patterns of use of financial instruments
  - ▶ May have policy implications that vary across the population