What can we learn about payment choice from seeing all retail transaction?

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Outline of the presentation

- Hungarian payment system
- Datasource
- Descriptive observations
- Research questions
- Main results
- Conclusion
Macro situation of the Hungarian payment system

Cash intensive economy
  • Cash/GDP slightly higher than in the eurozone

No cheques

Good payment infrastructure
  • 82.7 % account coverage
  • 80.1 % card coverage
But a low share of electronic payments

By value of transactions

- Cash payments: 26.59%
- Electronic payments: 46.01%
- Postal inpayment: 25.86%
- Money orders: 1.55%
- Other: 1.31%

By number of transactions

- Cash payments: 78.27%
- Electronic payments: 6.70%
- Postal inpayment: 13.72%

Source: MNB Survey 2014 edited
Online Cashier Register

2013 legislation by the Ministry for the National Economy
- Cashier machines connected online to the NCTA
- Obligatory for the retail sector
  - No services
  - Only physical stores

Primary goal is combatting tax evasion

> 200,000 cashier machines
> 7.3 billion transactions
From 2017 extended for most of service sector as well
The empirical distribution is heavily concentrated on small value payments.
The lack of small transactions in surveys distorts the studies …

Household payment habits based on the OCR and Ilyés-Varga [2015]
Card usage ratio drops after a certain value

Card transaction share at card accepting stores (HUF)
Payment card acceptance is mostly dependent on store size (annual revenue)
Research questions

• What are the main drivers behind card acceptance and card use?
• Can we confirm the main results of the payment literature of survey studies?

• Is ease of payment a significant factor?
• What predictory power can we reach based on only the merchant side?

• Method: logistic regression on 7.5 billion transactions
Payment card usage and transaction value have a non-monotonic relation.
Card usage drops towards the end of the month and in the middle of the year.

Month and day of the month dummy coefficients on the scale of the predictor variables.
Ease of payment have a significant effect on cash usage

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Coefficients in regression for number of bills needed dummyes

Fewer bill needed

Cash usage is more likely
Conclusions

• **Size is all that matters**
  • For acceptance: store size
  • For card usage: transaction value
• Its a complex and non-monotonic relation
• Ease of payment is a significant effect

• Sociodemographic effects can be confirmed even on county level data
• But!
  • Good predictive power even with very few information on the demand side
  • The basic characteristics of the payment is more important than customer habits

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Thank you for your attention!