

**Discussion of papers**  
**“Payment habits and**  
**the usage of payment instruments”**

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# Outline

**Two interesting, insightful, and complementary papers on different payment cultures!**

Von Kalckreuth, Schmidt, and Stix :

**“Using cash to monitor expenditures – implications for payments, currency demand and withdrawal behaviour”**

Arango, Huynh and Sabetti:

**“Will that be cash, debit, or credit?  
How Canadians pay?”**

# Von Kalckreuth – Schmidt – Stix Paper

## Motivation:

- Why do consumers prefer cash over non-cash, despite cost efficient alternatives?
- What is the distinct feature of cash?

## Additional questions/motivation/discussion:

- What is the interest of a Central Bank in this study?
- What is wider perspective on efficiency of retail payments?
- What is the relevance or implications for financial innovation?

# Von Kalckreuth – Schmidt – Stix Paper

## Data:

- Survey Payment Habits in Germany
- Random sample of 2292 individuals across all German Federal States
- One week payment drop-off diary
- 18 years or older
- Reference year 2008

# Von Kalckreuth – Schmidt – Stix Paper

## Methodology:

- Self-assessment being “wallet-watcher”
  - Expenditure control is indispensable and only cash fulfills this feature (Suggestive! Ranking of alternative payment instruments?)
  - Interview length as information processing cost (Innovative, but meaningful?) and need to monitor to reach financial goals (Income driven!)
- Dependent variables:
  1. Variables on cash usage (i.e. person always pays in cash, ...up to 100 euro, ...at specific point-of-sale, volume, value)
  2. Payment structure (i.e. threshold to card payments)
  3. Payment instruments (i.e. # payment instruments)
  4. Withdrawal behaviour (i.e. average withdrawal amount)

# Von Kalckreuth – Schmidt – Stix Paper

## Methodology:

- Testing strategy pocket-watcher and information costs and liquidity constraints:
  1. Comparison of sample means of restricted and unrestricted consumers for all variables
  2. Regression models (socio-demographics, trx cost, payment attributes variables)
  - 1.+2. Based on approximation restricted vs. unrestricted consumers
  3. Pair-wise correlation of endogenous variables  
Tested with data from Austria and Italy

Cash versus less-cash focused countries?

# Von Kalckreuth – Schmidt – Stix Paper

## Results:

- Cash features memory function is distinct advantage
- Wallet-watchers are consumers:
  - liquidity constrained
  - limited information processing capabilities
- Wallet-watchers payment behaviour:
  - Use more heavily cash, withdraw less frequently, and carry larger cash balances
  - Lower degree of payment instrument sophistication
  - Use payment cards less frequently
  - Payment cards only at higher values than unrestricted consumers – 52 euro higher on average

# Von Kalckreuth – Schmidt – Stix Paper

Comments/questions/suggestions:

- Intuition: Is wallet-watchers payment behaviour rational?
  - If financially restricted, risk of theft relatively more important and opposing effect of cash holding and withdrawal activity
  - If liquidity constrained, “account” instead of “pocket” watcher
  - Useful to monitor expenditure/budget. However, how useful is cash to detect/analysing inefficiencies in personal spending?
- Model:
  - Explanatory power across regression models (low  $R^2$  scores)?
  - Omission of variables?



# Von Kalckreuth – Schmidt – Stix Paper

## Comments/questions/suggestions (cont.):

- Policy conclusion:
  - “Use more cash” very strong
- Financial education of consumers
  - “Use more sophisticated payment instruments”
  - Analyze needs of consumers
  - Potential for better ways to deliver payment services

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# Arango – Huynh – Sabetti Paper

## Motivation:

- Why do consumers pay the way they pay?
  - Socioeconomic characteristics
  - Payment instrument attributes and perceptions
  - Transaction features
- Innovation of the paper:
  - How sensitive are consumers to changes in (non-)monetary incentives?
  - Simulate probabilities of payment choices

# Arango – Huynh – Sabetti Paper

## Data:

- Two-part Canadian consumer “Method of Payment” survey
  - Household questionnaire
  - Three-day shopping diary (one week diary?)
- Sample selection
  - Cash, debit/credit card (store value cards?)
  - POS (P2P excluded)
  - Online and offline diaries (see later comment)
  - November 2009 (representative month? Christmas shoppers?)

# Arango – Huynh – Sabetti Paper

## Methodology:

- Discrete-choice model:
  - Multinomial logit model in principle well suited
  - Limitations and often not realistic (McFadden, 1974)
  - Assumption of proportional substitution pattern (Independence of irrelevant alternatives, IIA)
- Possible alternative model:
  - Nested logit model
  - Allows partial relaxation of IIA property

# Arango – Huynh – Sabetti Paper

## Results:

- 1) Estimate probabilities using cash, debit and credit cards
  - 2) Cash is “king” for low value transaction
    - Speed, merchant acceptance, and low costs
  - 3) Debit and credit cards for high-value transactions
    - Safety, record keeping, credit (delay) functionality, and rewards
  - 4) Reward programmes drive substitution effect from debit to credit card payments
  - 5) If consumer revolves credit, consumption smoothing motive rather than method of payment
- What about overdraft facilities for debit cards?**

# Arango – Huynh – Sabetti Paper

## Comments/questions/suggestions:

- Potential bias online vs. offline sample selection. Technology affine consumers with different payment behaviour.
- Three-day vs. one-week diaries. Weekend vs. within a week payment behaviour? High record keeping of payments at diary start (see Australia's 2010 Consumer payment study).
- Confusion about consumers about credit and debit cards?
- Small and medium transaction value range from \$5 to \$100. Large value retail payments excluded.

# Arango – Huynh – Sabetti Paper

## Comments/questions/suggestions (cont.):

- Record keeping plays important motive for individuals relying on a particular type of method (compare with “wallet watchers” of Schmidt, von Kalckreuth and Stix)
- Paper claims that credit card rewards play key role. Binary variable and estimates are very rough as extent of incentives differ substantially across reward programs.
- One-year one-off exercise, useful to study current payment patterns, less suited to monitor development over time. Payment habit persistence may play important role.
- Initial statement p.2: “*research sheds light on policy questions*”  
What is the policy context and implications on surcharging, interchange fees, pricing of payment instruments, steering consumers?