# "The choice at the checkout: quantifying demand across payment instruments"

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# **Objectives**

- Estimate consumer preferences over payment choices at point of sale.
- Predict the outcomes of three counterfactual experiments:
  - > removing options from the consumer choice set.
  - adding a hypothetical option to the choice set.
  - aging the consumer population.

## **Method**

- Use a new nationally representative survey (1,500 households).
- Transform the responses to the open-ended questions into ranked outcome variables.
- Use the rankings in a ranked-order multinomial logit.
- Use the estimates to predict the outcomes of the counterfactual experiments.

## Main result

- Debit card serves primarily as a substitute for cash and checks.
- This finding shed light on the relatively slower adoption of debit card in the US compared to many other developed countries.

#### Contribution

- Provide an estimation of the substitution between alternative payment instruments.
- Little empirical investigations in literature (Bolt et al. 2005).
- Users do not generally pay any fee per transaction and so the marginal cost of a further transaction is zero.

#### **Consumer substitution: comments**

- Debit is a substitute for alternative payment options once and for all.
- People will necessarily *prefer* debit card to alternative payment options.
- We can't deduce a complete and definitive substitution from respondent's answers.
- Examples.

## Consumer preferences: comments

- "Frequent debit users" and "Infrequent debit users": where does the classification come from?
- Why should debit be ranked first?
- Example.
- Need further data on respondent payment patterns.
- What does the « unmentioned » category really mean?
- How can I build an ordered set of choices between debit, "others" and "unmentioned"?

# Consumer preferences: comments

- Checking account holders without a debit card choose not to use debit.
- The principal behavioral postulate is that a decision maker chooses its most preferred alternative from those available to it.
- Debit is not an available alternative. So people can't choose (if they could they would probably act differently?).

# Implicit assumptions

- Three implicit and important assumptions are made.
- First, retailers are assumed identical (supermarket).
  - ➤ People use different payment instruments according to the type of commerce (Boeschoten, 1998).
- Second, all four payment options are available at point of sale.
  - Supply-side constraints.
- Third, the transaction size has no impact.
  - People use different payment options with transaction size (Hayashi and Klee, 2003).

# A further implicit assumption

- For all respondents, the payment choice for which they report their "preferences" was necessarily at the checkout (supermarket).
- People can refer to payments on the Internet, by post, on vending machines, etc.
- You don't control for these types of payments.
- So, choices are not necessarily at the checkout!