

# **Incentives at the counter:**

## **An empirical analysis of the impact of surcharging on payment behaviour in the Netherlands**

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Research Conference on Payment Systems  
Norges Bank, 14-15 November

# Research question

**What is the influence of surcharging debit card payments on payment behaviour?**

- How do consumers react?
- Does surcharging lead to an under- or overprovision of debit card payment services?
- What if retailers would stop surcharging debit card payments?

# Motivation

## NL (but probably also elsewhere)

- Costs of debit card payments are declining→debit card also attractive from social cost perspective for low amounts

## Internationally:

- The 'No surcharge rule' of card payments is under pressure by antitrust and competition authorities
- Price sensitivity card holders wrt card usage key issue in MIF debate Europe

# Overview literature

## **Borzekowski et al (JMCB, 2008):**

- PIN debit charge by banks reduces debit card use

## **Bolt, Humphrey & Uittenbogaard (IJCB, 2008):**

- Consumers are sensitive to transaction pricing

# Key figures NL POS payments 2007

	<u>number (in billions)</u>	<u>value (EUR billion)</u>
Debit card	1.59	69.5
E-purse	0.18	0.5
Creditcard	0.03	3.4
<u>Cash</u>	<u>5.4</u> +	<u>51</u> +
Total	7.2	124.4

## Brits & Winder (2005), McKinsey & Co. (2006) and EIM (2007)

- Cost studies Dutch POS payment system
- Debit card used to be efficient for amounts above EUR 11.63, but the break-even point is rapidly declining

# Data

## Two surveys held in autumn 2006

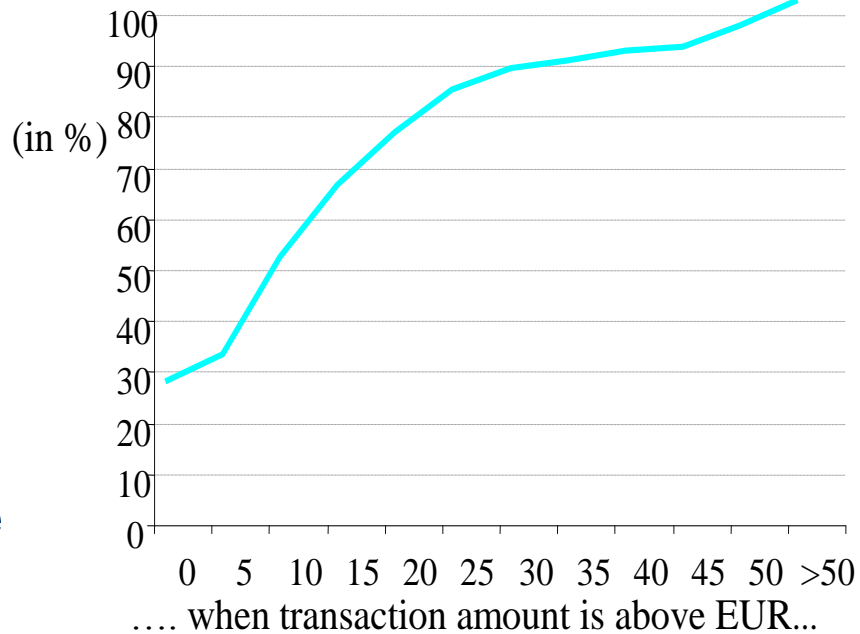
- Consumer survey (DNB Household survey) among 2000 households yielding 1873 respondents
- Interviews by telephone among 1000 retailers by TNS Nipo

# Research results

Share of retailers accepting PIN:	0.67
Share of PIN accepting retailers that surcharges	0.22
• Average surcharge	EUR 0.23
• Average treshold amount	EUR 10.50

# Research results

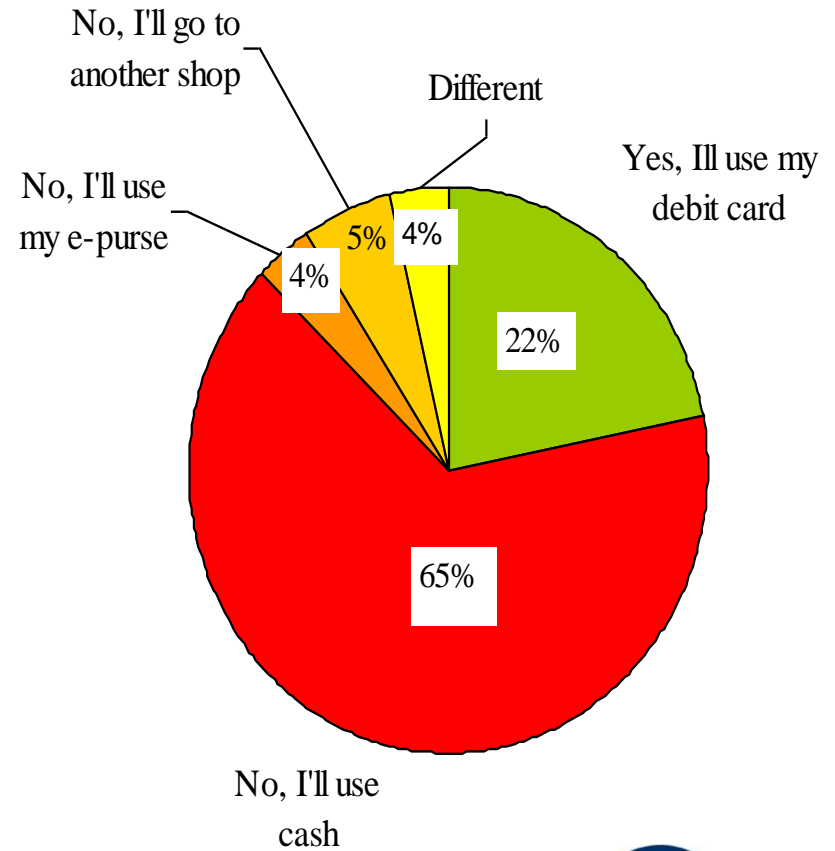
Graph 2 Share of debit card payers using the card....



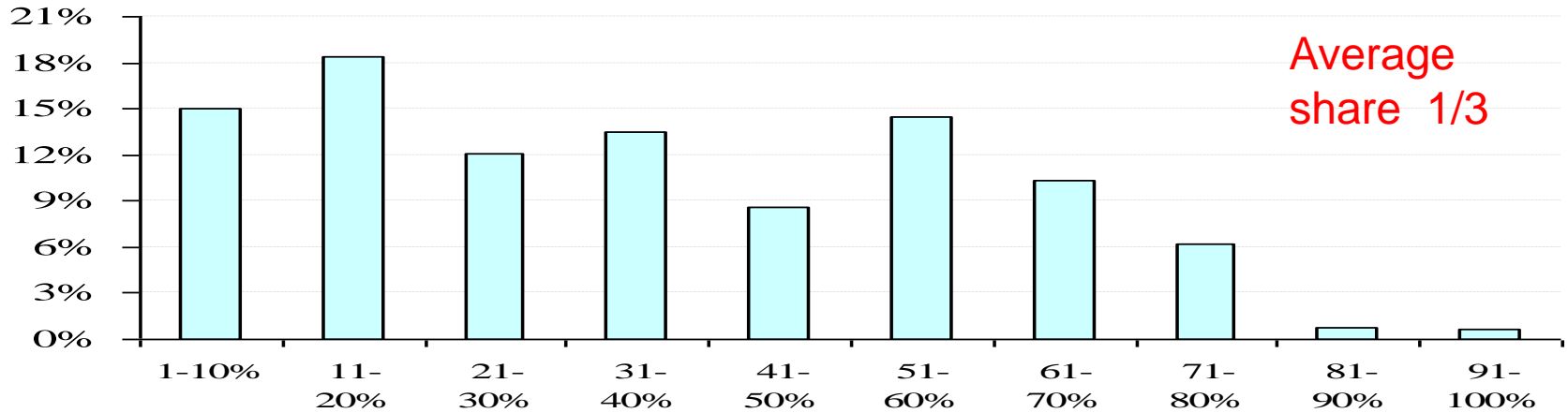
About  $\frac{3}{4}$  says his payment choice depend on transaction amount, they use the debit card ....

# Research results

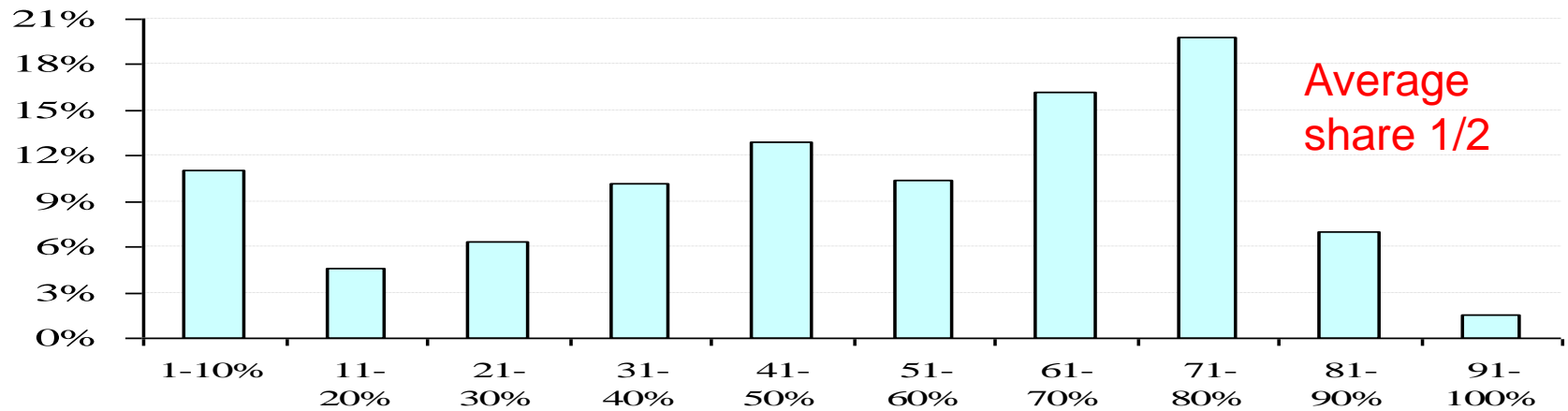
Are you willing to pay a surcharge for using a debit card to pay an amount below EUR 10?



# Research results



Share debit card payments in shops **with a surcharge**



Share debit card payments in shops **without a surcharge**

# Research results

## Estimating the impact of surcharging on payment behaviour

- Ordered probit model
- Sample: Debit card accepting retailers (n=812) of which 174 surcharge
- Dep. Var.: share debit card payments on all payments (10 cat.)
- Explanatory variables: surcharge dummy, level of surcharge, cut off point, firm chars. like firm size, branch, sales, urbanisation degree, province, independent shop or part of larger chain

# Research results

## Influence surcharging on debit card share

- Incidence of surcharging - (5%-level)
- Level of the surcharge - (10% level)
- Threshold 0 (not significant)
- Other significant variables: branch, region, sales, independent shopkeeper

# Research results

## Focus on impact incidence on debit card share:

- using marginal effects surcharge dummy on chance to fall in a debit card share category
- 8 % - points less debit card payments at retailer level in case of surcharging
- suggests that half of the difference in debit card share between the two types of retailers stems from surcharging

# Scenario analyses

## Evaluating the impact of the abolishment of debit card surcharging on the costs of the POS payment system

1. Direct effect 8 % points more d.c.payments in surcharging stores

*Second round effects change payment behaviour all stores and all transaction amounts*

2. 10 % points increase d c share EUR 10-60
3. d c share EUR 10-60 rises to d c share EUR 60 and over (75%)

# Scenario analyses

## Savings on social costs POS payment system

	$\Delta$ number of d c payments (mln)	$\Delta$ value of d c payments (EUR bln)	Cost savings (EUR mln)	% of var. costs cash and dc payments
Direct effect	67	0.8	5	<1%
10 % points increase	340	6.7	50	4%
Rise to EUR 60 level	1180	16.0	110	8%

# Concluding

- Both consumers and retailers indicate that surcharging affects payment behaviour
- Surcharging seems to lead to an underprovision of debit card services
- The abolishment of surcharging would in the short run lead to small cost savings.....
- ....in the long run substantial savings might be possible
- Increase in debit card acceptance might lead to even higher cost savings

# Thank you for your attention!

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