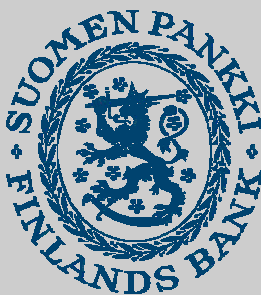


**Retail payments:
integration and innovation
25 - 26 May 2009
Frankfurt am Main**



**EUROJÄRJESTELMÄ
EUROSYSTEMET**

**A joint conference by the
European Central Bank and
De Nederlandsche Bank**

**Comments on:
Costs in the Norwegian payment system 2007
*by O. Gresvik and H. Haare***

**Discussant: Harry Leinonen
Bank of Finland**

**The views expressed are those of the author and do not
necessarily reflect the views of the Bank of Finland.**

Why an interest in costs of payments?

- ◆ Sufficient competition drives prices down in most industries to the level of costs
- ◆ Network industries contain often competition barriers (eg monopolies, entry limitations, regulations) resulting in price and efficiency distortions
- ◆ Cash is a government/central bank monopoly benefitting from a legal tender status
- ◆ Current pricing schemes contain major hidden pricing elements

How big are the distortion factors and could the payment efficiency be improved?

CB-studies in: NO, SE, (FI), NL, BE, (AT), PT, AU, US ...

What to include in payment costs and charges, which is the payment service perimeter?

◆ Which costs to allocate on payments

- Credit costs of credit cards and other consumer credits?
- Additional non-related services like travel insurance?
- Value-added integrated services like e-invoicing, e-archiving, automated reconciliation?

◆ Which charges to allocate on payments

- How to allocate fixed multi-product package fees?
- How to separate credit service parts from combined charges?
- How to include hidden charges like foregone interest due to low current account interest rates, float (not applicable to Norway) etc?

***For cost recovery and profit calculations
the cost and revenue perimeters need to be aligned.***

Allocating costs on products

Accounting costs

Purchases

Outsourcing

Personnel&Pension

ICT

R&D

Marketing

Premises

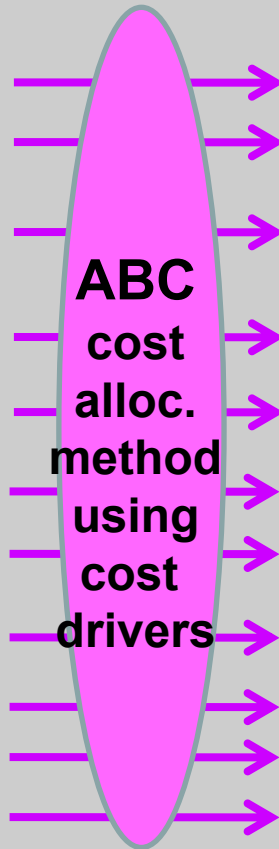
Adminstration

Depreciations

Taxes

Capital costs

Σ Total costs



=

Product 1

Product 2

.... Product n

Note! Banks, merchants etc have not generally full cost accounting on payment product level



Σ Product costs

- a. *How to find suitable distribution keys (cost drivers) for common costs shared by several products?*
- b. *How to ensure that the cost totals add up?*
- c. *How to ensure compatible method implementation?*

Payments are mainly a fix costs industry
with zero-sum cannibalism

Unit costs = Total costs / Volumes

Unit costs = Variable unit costs + (Fixed costs / Volumes)

- ◆ Which costs are truly variable?
- ◆ Which are semi-variable over time?
- ◆ Which are just hidden fixed costs eg outsourced services with unit cost pricing?

Total volumes are externally determined (= number of economic deals requiring payments).

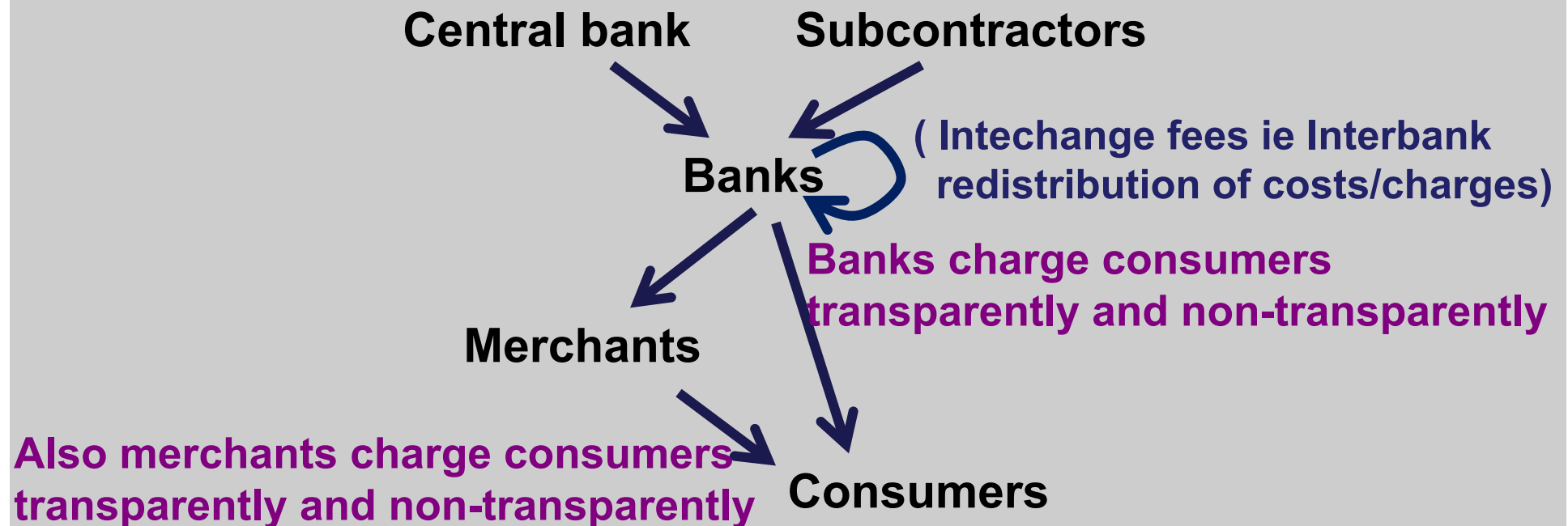
Volume distribution among instruments dependent on past history, subsidies and visible cost differences.

All service providers charge costs and profits (+/-)

$\sum \text{consumer charges} = \sum \text{production costs} + \sum \text{profits}$

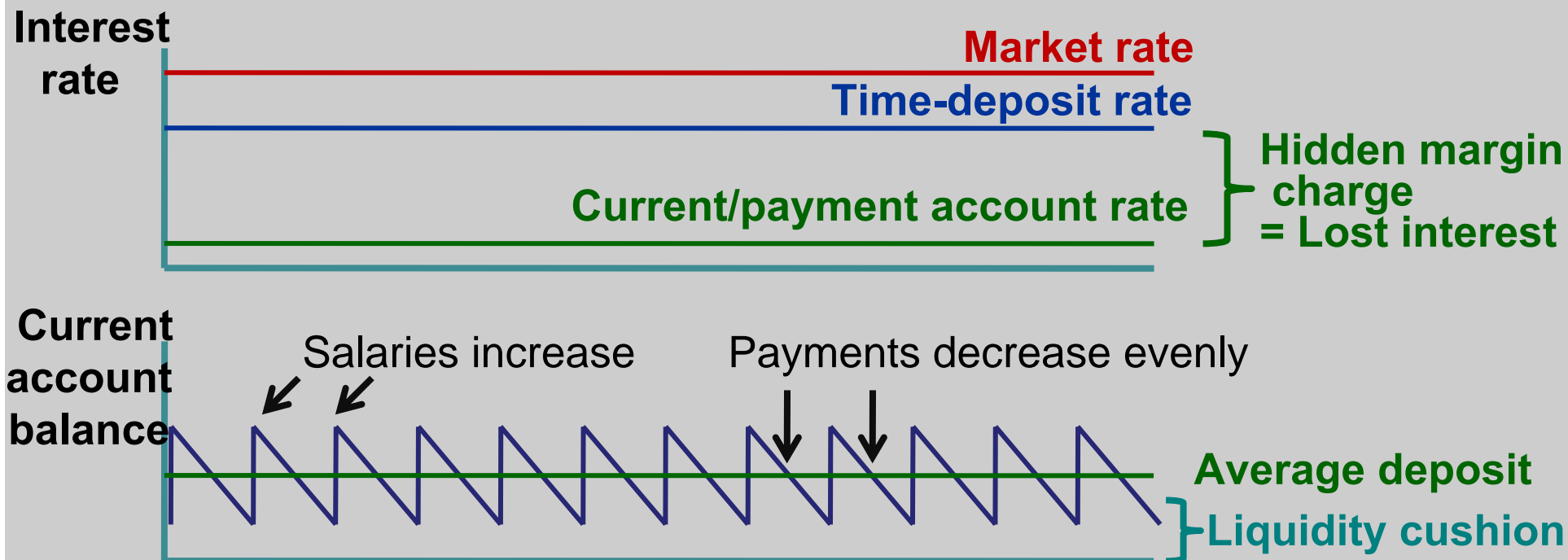
$\sum \text{social costs} = \sum \text{consumer charges} - \sum \text{profits} + \sum \text{consumer costs}$

$\sum \text{consumer charges} + \sum \text{consumer costs} = \sum \text{social costs} + \sum \text{profits}$



*In the end consumers pay all costs for paying + profits.
How reasonable are the profit parts?*

Non-transparent interest charge of banks



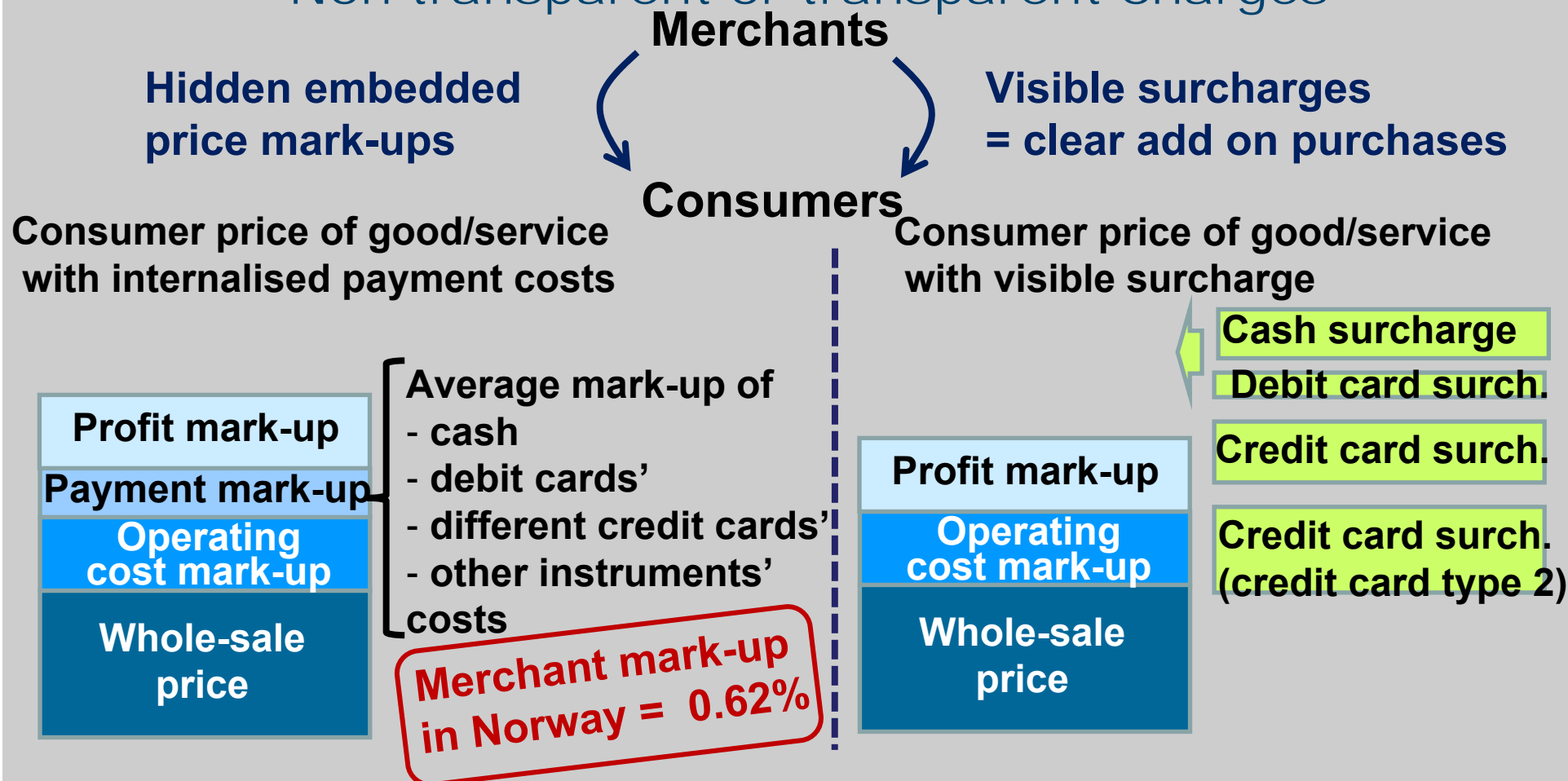
Average payment balance = Total payment volume / salary frequency / 2

Average deposit balance = Average payment balance + liquidity cushion

In Norway? $\approx (423 \text{ NOK billions} / 12 / 2 + 10\%) * 3\% = 0.6 \text{ NOK billions}$
= 8% of bank costs

The hidden interest income of banks due to wider margins can be compared to the seignorage income of central banks

Two merchant charging methods or their combination: Non-transparent or transparent charges



In both cases consumers pay all merchants' payment costs, but has a choice possibility with transparent pricing.

Profit mark-ups depends completely on the market competition irrespectively of visibility or change etc of payment costs.

Quality issues of the study

- ◆ Used questionnaires, cost methodology, detailed cost types
- ◆ Cost variances across entities
- ◆ Small and potentially biased merchant cost information
 - Back-office and set-up costs?
- ◆ Cash volume estimations affecting the outcome

	Study	Merch.	NL	FI
– Average cash purchase size EUR	25	17	10	12

	Purchases	Withdrawals	Diff%
– Cash turnover NOK billions	227	a.130-140	-40%

It is difficult to collect cost data.

Cash data need to be improved especially on OTC withdrawals and average purchase size.

A good and necessary overall study.

**We need more in depth studies on
payment costs and charges.**

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Comments on:

**How effective are reward programs in promoting
payment card usage? Empirical evidence
*by S. Carbó-Valverde and J. Liñares-Zegerra***

**Discussant: Harry Leinonen
Bank of Finland**

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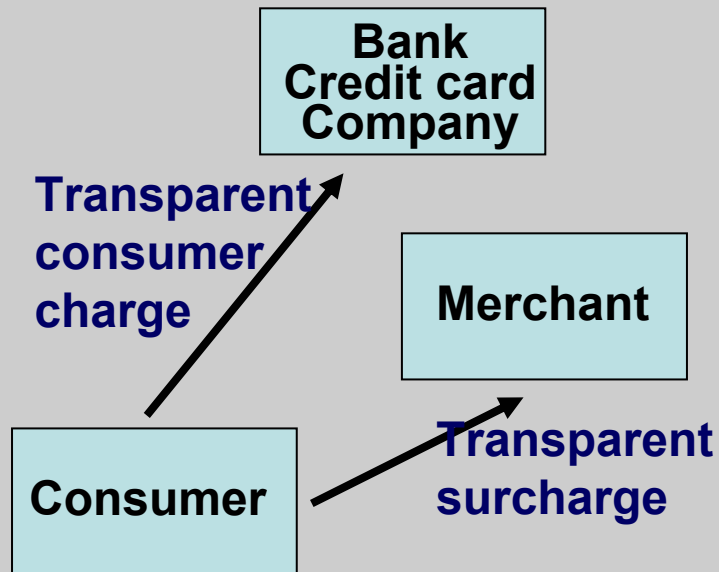
Why an interest in card reward programs?

- ◆ Cards are generally seen as more efficient than cash, still cash is very popular and show very slow decrease in volumes
- ◆ How to increase the popularity of cards and other efficient instruments?
- ◆ Which are the active incentives and disincentives for customer change
- ◆ Payment charges are often hidden and rewards can increase the visible incentives?
- ◆ Which reward schemes are efficient?

***Authorities have an interest in
the consumer benefits of reward schemes?***

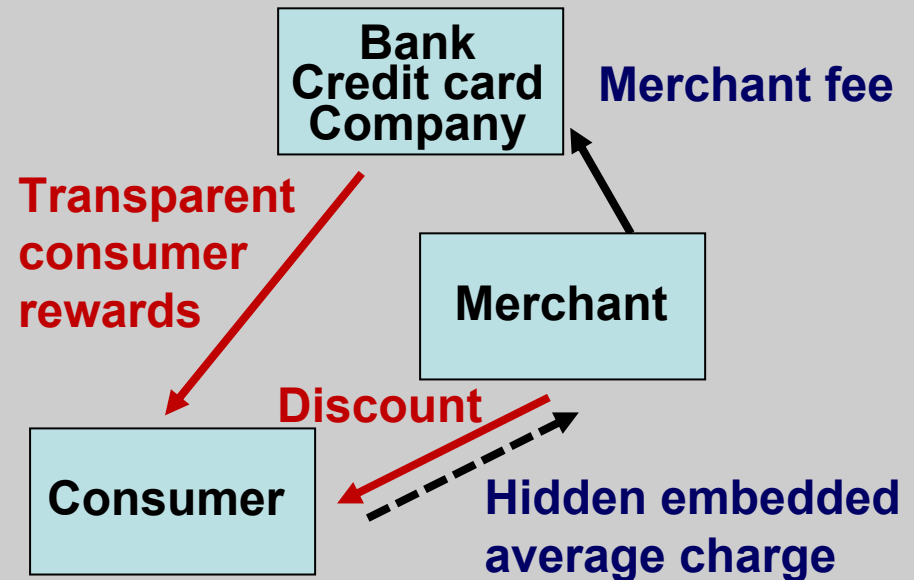
Main charge alternatives plus combinations: Perfect transparent price competition or transparent reward competition

A. Only transparent charges



Banks and merchants use visible charges for all payment instruments

B. Only transparent rewards



All charges embedded in merchant prices. Customers are rewarded based on merchant fees – banks' payment instrument costs

***Which pricing scheme is more efficient for consumers?
Should we move more towards one or the other?***

Rewards affect customer behavior

◆ According to the study

- Reward programs increase card usage for debit card users with 5.0% and credit card users with 2.1%
- Discounts 3.4% for debit cards and 0.2% for credit cards
- Points 2.5% for debit cards and 1.5% for credit cards

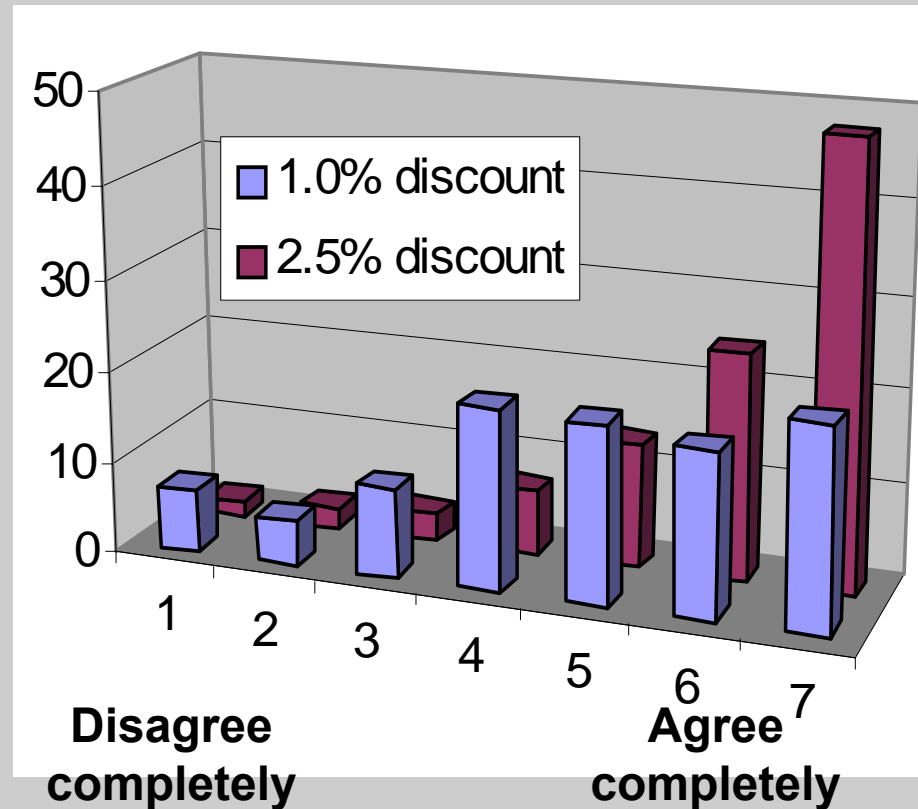
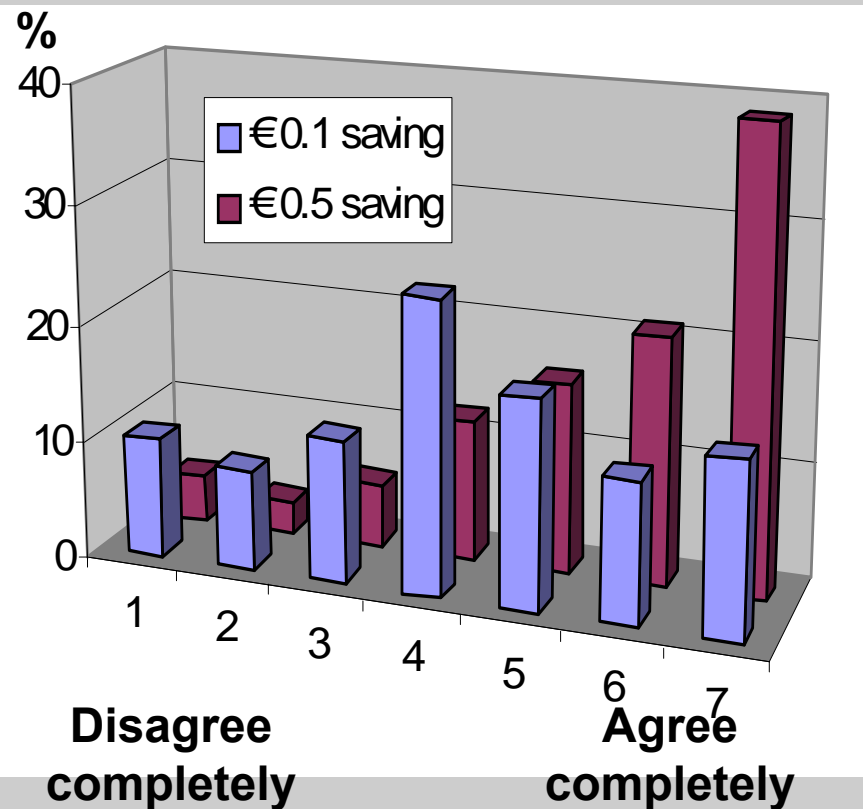
◆ How are the results controlled for

- Merchants acceptance policies
- Multi-homing (ie customer with both debit and credit cards)
- Banks issuing policies
- The credit of credit cards as a reward of its own

The size of the rewards have probably a major effect

If I saved 10/50 cents per payment transaction by using a new payment habit, I would like to start using it

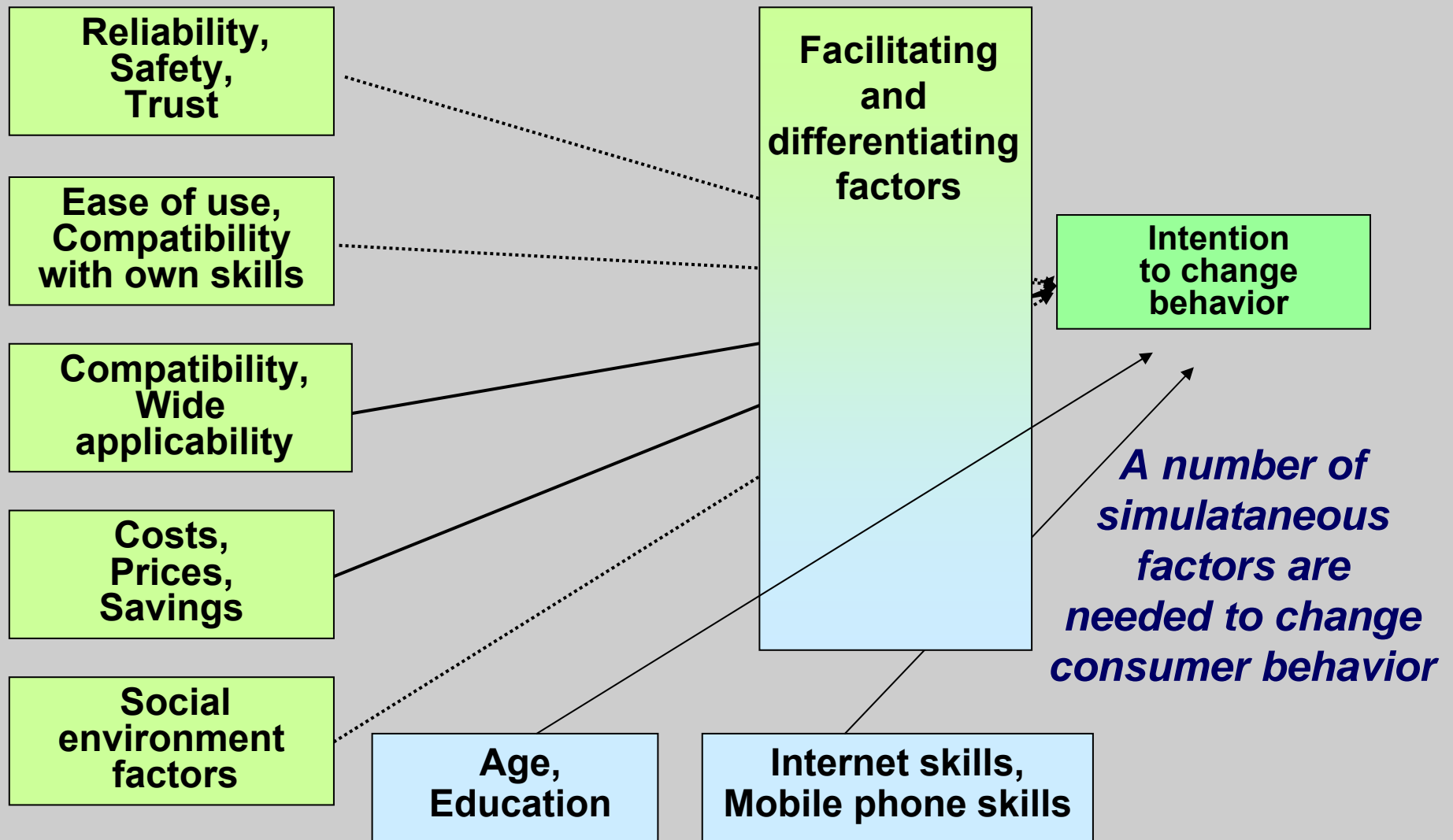
If I got a 1%/2.5% discount from my purchases by using a new payment habit, I would like to start using it



Customers are sensitive to visible charges and their size

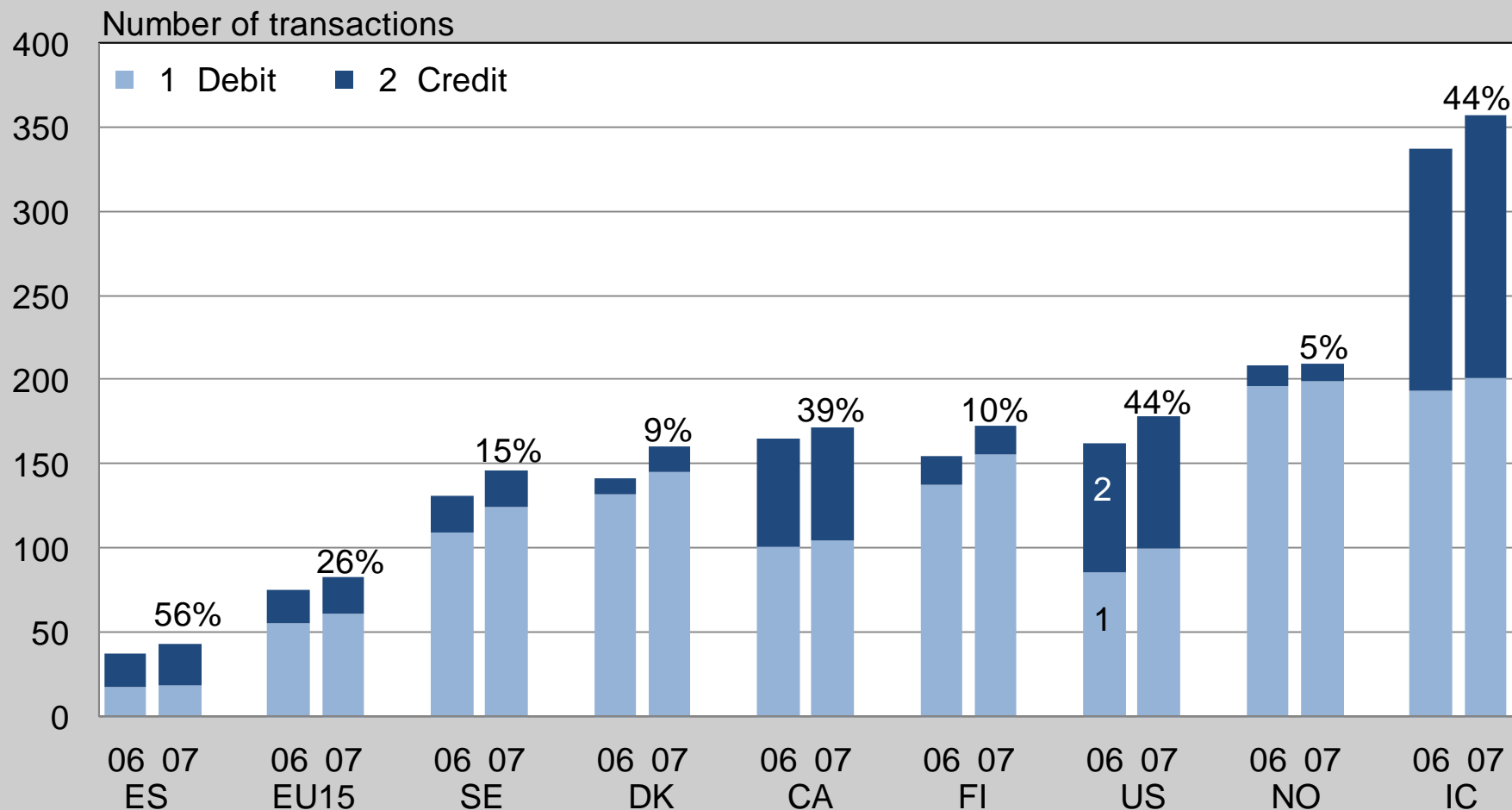
Ref: Dahlberg-Öörni: Finnish consumers' expectations on developments and changes in payment habits. Bank of Finland discussion paper 32/2006 (BoF survey Oct-Nov 2005)

Adoption factors for new payment habits, incentives and disincentives



Ref: Dahlberg-Öörni: Finnish consumers' expectations on developments and changes in payment habits. Bank of Finland discussion paper 32/2006

Transactions per inhabitant in 2006 and 2007



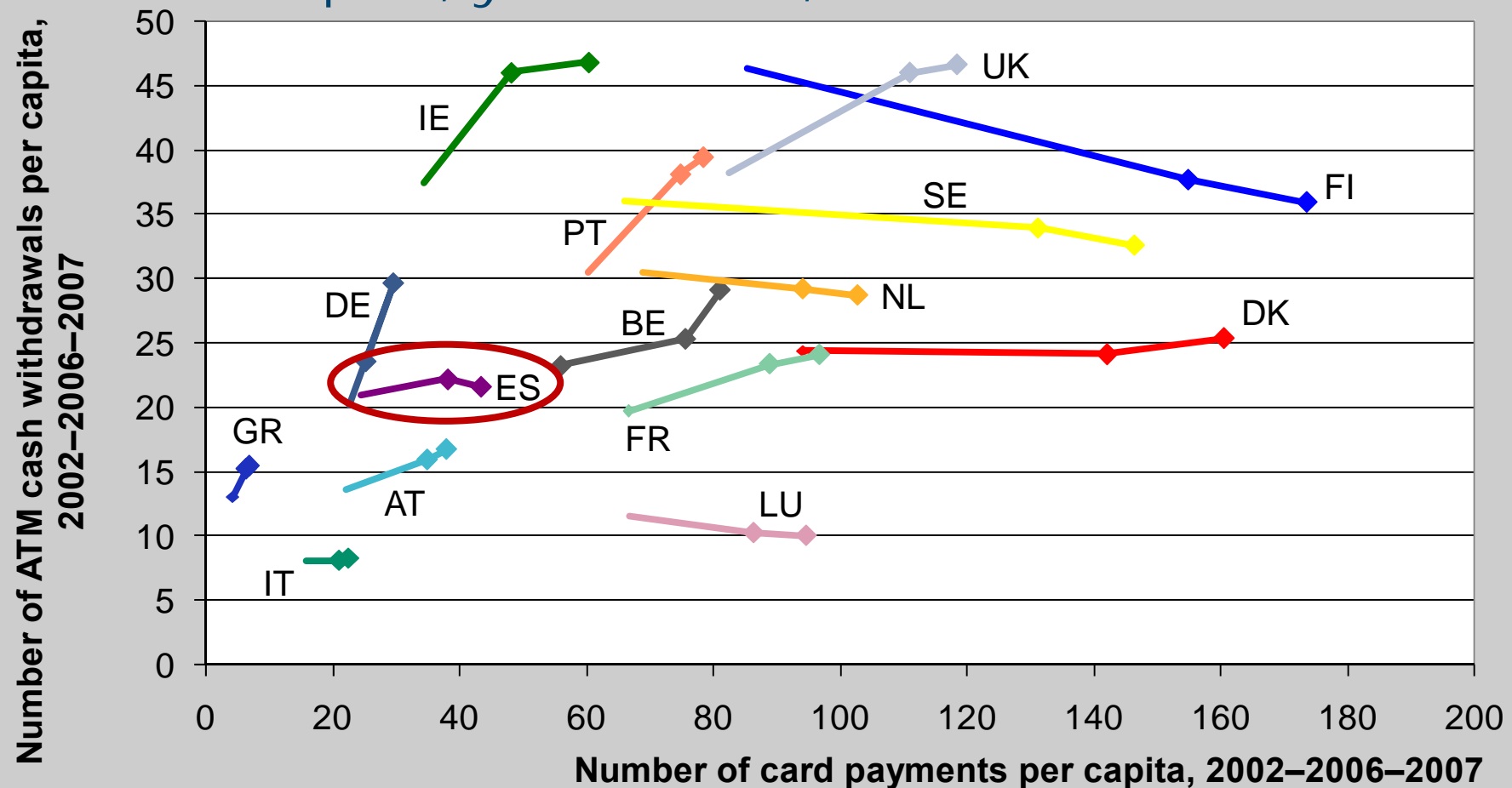
Sources: Noregs Bank, ECB Blue Book, BIS Red Book, Sedlabanki Islands, Reserve Bank of Australia and Reserve Bank of New Zealand.

The share of credit card usage in Spain is comparably high.

The overall card usage is comparably low in Spain.

Has banks marketing policies slowed down debit card usage in Spain?

Cash withdrawals and card payments per capita, years 2002, 2006 and 2007



Sources: ECB, Blue Book publications, Statistical Data Warehouse and author's estimate of ATM withdrawals in Denmark.

Spain belongs to the “cash-countries” in Europe.

Are there major disincentives compared to Nordic countries, as reward programs are scarce in Nordic countries but card usage is high?

Incentive programs are costly

- ◆ Incentive program costs are covered by higher merchant fees resulting in higher hidden merchant mark-ups
- ◆ It will increase cross-subsidies among consumers resulting in inequality, because the costs and reception of rewards are distributed unevenly
- ◆ Incentive programs will increase the share of non-transparent charging, which is more difficult to control for competition

Suitable incentive programs are beneficial to issuers, but to which extent are they beneficial to consumers and the overall economy?

A highly interesting study,
which could be followed up by experiments,
in which groups of customers
are confronted with different levels of incentives
for given time periods.