

2nd Payment Habits
Seminar
26-27 August 2008



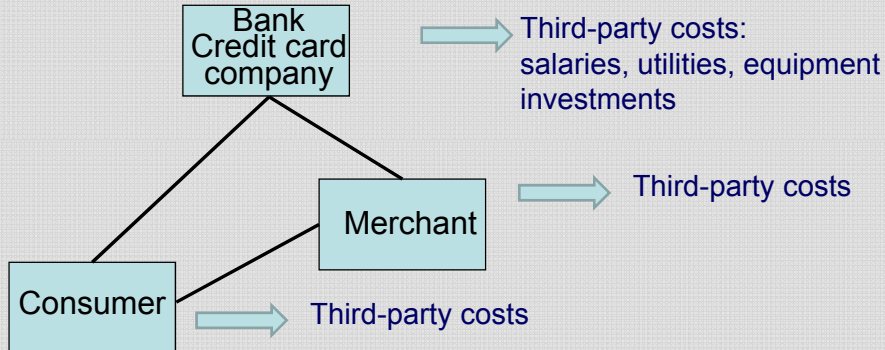
The effects of transparent and non-transparent payment service pricing

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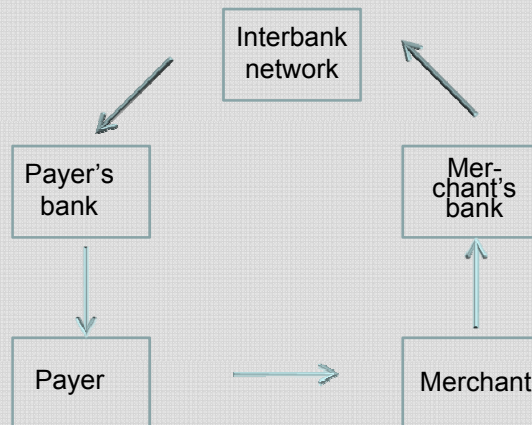
1. Payment costs

Social costs = actual costs



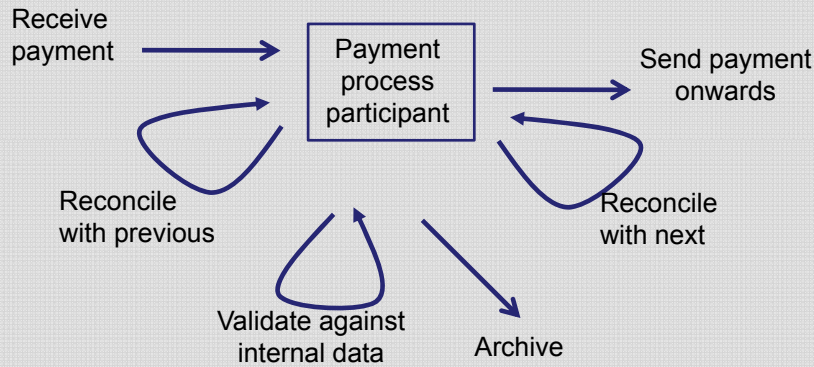
- **Actual costs for payments are the costs paid to third parties.**
- **Charges between processing parties redistribute costs.**
- **According to standard theory, service charges = costs in open competition.**

Payments are processed in a linked circle



Note: Also applies to cash, as it is mainly withdrawn from accounts using ATMs, while merchants deposit received cash in accounts, as they seldom use cash for their own payments

All parties in the payment circle perform the same basic functions for all payment instruments



Any cost differences will depend on the automation level of these functions (manual, semi-manual and automated).

Cash cannot be automated, but smaller cash transactions can be aggregated at banks, resulting in aggregation savings.

Empirical cost studies

Banking system and merchant costs (EUR):	Netherlands year 2002	Belgium year 2003	Sweden year 2002
Average transaction costs, cash	0.30	0.53	0.50
Average transaction costs, debit cards	0.49	0.55	0.34
Average transaction costs, credit cards	0.93	2.62	0.48
Average transaction costs, e-money	3.59	0.54	
Break-even, cash to debit cards	11.63	10.24	8.00
Break-even, cash to credit cards		60.88	18.00

Banking system costs alone (EUR):	Norway year 2001	Portugal year 2005
Average transaction costs, ATM	1.04	
Average transaction costs, cash o-t-c		1.85
Average transaction costs, debit cards	0.32	0.23
Break-even number of debit card to cash transactions (aggregation for break-even)	3.25	8.04

Total cash costs, CB, banks, handlers, retailers (EUR)	Finland year 2005
Total cash costs per ATM withdrawals	0.72
Total cash costs per estim. cash purchases	0.14

Some observations on empirical cost studies

- ◆ Quite different cost methodologies
- ◆ Quite large differences in cost levels
- ◆ Quite large differences in automation levels
- ◆ Some differences in payment structures
- ◆ Considerable differences in the market shares of different instruments (especially cash vs cards)

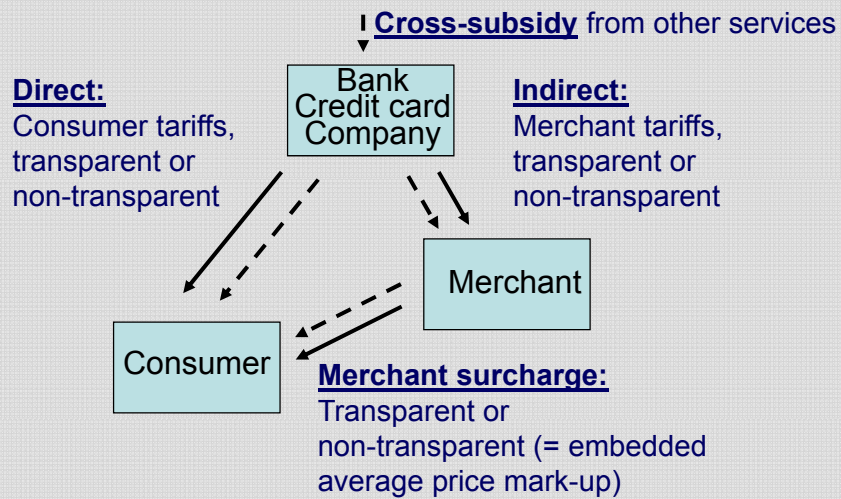
Customers select payment instruments based on private costs and other criteria

- ◆ Private costs = (visible) charges plus own third party costs
- ◆ If large parts of charges are non-transparent, customers will see biased private costs
- ◆ If private costs are biased, the volumes will become biased
- ◆ Biased volumes will result in biased distribution of fixed costs.

It is hard to draw conclusions on current costs of different payment instruments, as payment volumes are biased.

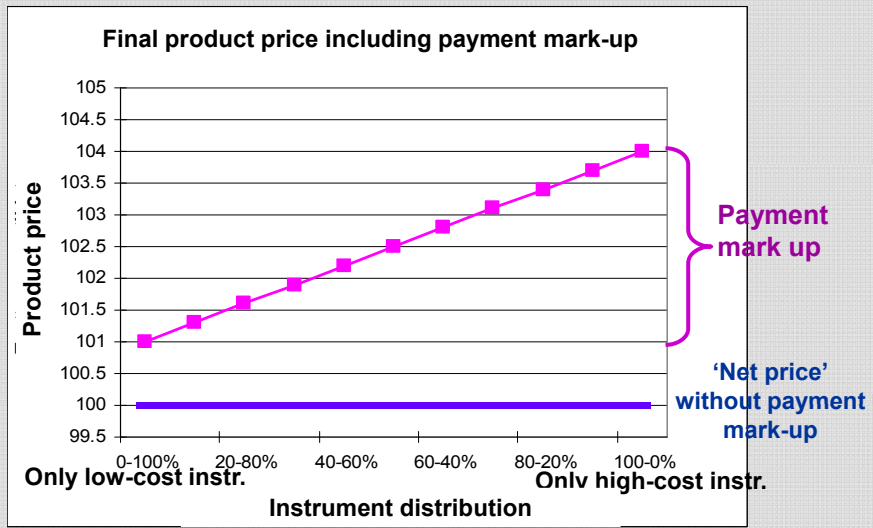
2. Payment charges

Current pricing models for payments



***In the end, all payment costs/charges are always paid
by consumers transparently or non-transparently
(mostly non-transparently).***

**Simple two-payment instrument model
(low cost 1% and high cost 4%, net price EUR 100)**



The larger the number of customers selecting the high-cost instrument, the higher the mark-up becomes

Estimation of current merchant mark-up in Finland

	Bank and credit card tariffs	Volume (2007) millions	Value (2007) EURm	Merchant fee EURm (lower bound)	Merchant fee EURm (upper bound)	Average purchase EUR
Domestic debit cards	3-5 cent/trans	628	22 500	19	31	35
International debit cards	0.33% of turnover	199	4 000	13	13	20
Cash	0.6-1.0% of turnover	1 366	16 400	98	164	12
MC/Visa credit cards	1.0-1.2% of turnover	108	6 700	67	80	62
Other credit cards	2.7-4.0% of turnover	15	1 000	27	40	63
Totals		2 316	50 600	224	329	21
Total average mark-up				0.44%	0.65%	

Note! Cash services of banks (or their subcontractors) often contain value-added merchant services such as accounting and transport.

Comments on the mark-up calculations

- ◆ Number of debit card transactions based on banks' public statistics, merchant tariffs estimated based on banks' public tariffs and Oy Luottokunta Visa/MC tariffs
- ◆ Cash values based on ATM transactions, merchant tariffs estimated based on banks' public tariffs (OTC cash withdrawals are of minor importance for purchase-related cash and are partly offset by net exports of ATM cash)
- ◆ Credit card transactions based on banks' public statistics, merchant tariff for Visa/MC cards based on Oy Luottokunta tariffs
- ◆ Credit card transactions and tariffs for other (mainly high-cost) cards are estimated based on merchant information, as no public statistics are available
- ◆ As both cash and high-cost credit card estimates are cautious, the overall figure may be slightly underestimated

Non-transparent ATM withdrawal fee (customers withdraw seemingly for free, but banks charge merchants for returning the cash and this charge is embedded in goods and services)

Average ATM withdrawal EUR 86 (2007)

Banks' merchant fees for cash	Corresponding transparent fee
0.5%	43 cent
0.6%	52 cent
1.0%	86 cent

*Is non-transparent pricing sensible?
Would consumers change their ATM usage patterns if they could see the true costs?*

Non-transparent credit card fee

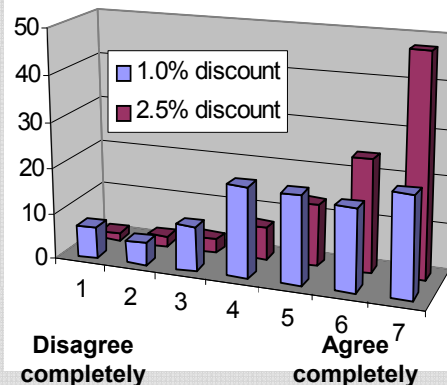
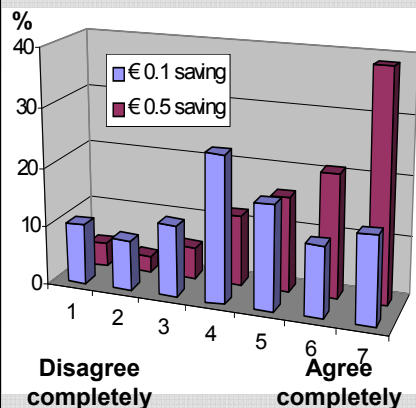
The average credit card purchase in Finland in 2007 was EUR 62, the customer paying at the end of the following month and the merchant receiving the credit after 6 banking days, resulting in an average credit time of 37 days.

Merchant fee	Corresponding payment charge	Interest rate (pa) for a 37-day credit
1.0%	€ 0.62	10% pa
2.5%	€ 1.55	24% pa
3.0%	€ 1.86	29% pa
4.0%	€ 2.48	39% pa

Would credit card customers change their payment habits if they saw the true costs and could compare them with service content? Would they change to lower cost consumer credit, for example 6–8% at their own banks?

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 (compare with the old tariffs on cheques)

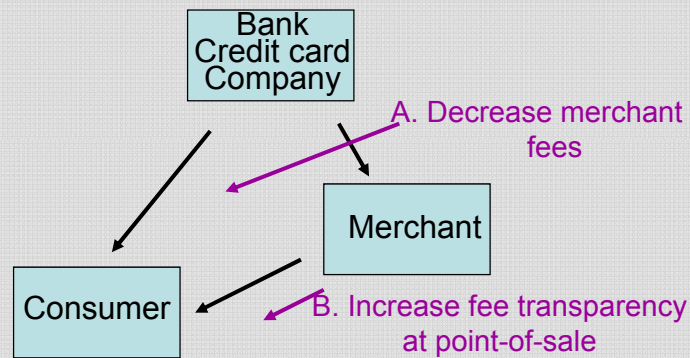
BoF Consumer Survey Oct/Nov 2005

Current hidden cross-subsidisation

- ◆ When an average payment mark-up is applied, the low-cost instrument subsidises the high-cost instrument.
- ◆ The credit costs of credit card purchases are partly covered by extra charges for cash and debit card customers.

Is it sensible to subsidise the expensive consumer credits of some customers at the expense of other customers?

Two ways to increase price transparency



Both alternatives would give consumers a free choice and would provide a transparent direct cost/benefit difference

Individual prices on payment instruments would require clear and simple price information (tags)

- ◆ The simplest solution would probably be to show price tags with cash prices to consumers
- ◆ The cashier would deduct or add an instrument cut or addition for other instruments
- ◆ A payment price list would be clearly visible at the point of sale

Consumers need to 'reprogram' their payment habits in familiar situations

Payment instrument	Instrument cut (-) add on (+)
Debit card	- 0.x% + €0.0x
Visa Electron & Visa Debit	- 0.xx%
Cash	0
Visa/Mastercard credit card	+ 0.xx%
Amex	+ x.xx%
Diners	+ x.xx%

NB! Just an example, it is up to the merchants to decide if they price separately (and the differences should be in line with banks' and card companies' merchant fees)

If charges become transparent, the results could be as follows, for example

- ◆ the use of cash could decrease by a third and move to debit cards
- ◆ the use of credit cards could be halved
- ◆ high-cost credit card transactions would partly become debit card payments and partly become low-cost credit card transactions
- ◆ cash charges would decrease to the lowest current level of 0.6%
- ◆ charges for international cards would decrease to the level of domestic debit cards
- ◆ Visa/Mastercard credit card charges would drop by 10%
- ◆ high.-cost credit cards would reduce their charges by 50% in order to become competitive

Estimated savings based on these assumptions

	Bank and credit card tariffs	Volume (2007) millions	Value (2007) EURm	Merchant fee EURm (lower bound)	Merchant fee EURm (upper bound)	Average purchase
Domestic debit cards	3-5 cent/trans	675	30 410	20	34	45
International debit cards	0.33% of turnover	214	5 406	8	18	25
Cash	0.6-1.0% of turnover	1 367	10 933	66	109	12
MC/Visa credit cards	1.0-1.2% of turnover	54	3 350	30	40	62
Other credit cards	2.7-4.0% of turnover	7	500	9	20	63
Totals		2 316	50 600	133	221	21
Total average mark-up				0.26%	0.44%	
Merchant cost difference to current total EURm				92	- 108	max 196

A reduction in cash usage by 33% and credit card usage by 50% and increased competition would bring significant savings

The impact of separate pricing on purchases of different size (a current average mark-up of 0.57% dispersed)

	Merchant fee	€1 (EUR)	€5 (EUR)	€10 (EUR)	€50 (EUR)	€100 (EUR)	€500 (EUR)
Price w/out mark up	-0.57%	0.99	4.97	9.94	49.72	99.43	497.15
New cash price	+0.6%	1.00	5.00	10.00	50.01	100.03	500.13
Dom. debit card cut	-0.6% +5cent	0.04	0.02	- 0.01	- 0.25	- 0.55	- 2.95
Int. debit card cut	-0.45%	0.00	- 0.02	- 0.05	- 0.23	- 0.45	- 2.25
Visa/MC credit card	+0.3%	+ 0.00	+ 0.02	+ 0.03	+ 0.15	+ 0,30	+ 1.50
Other	+1.1%	+ 0.01	+ 0.06	+ 0.11	+ 0.55	+ 1,10	+ 5.50

Note! Lower charges due to competition.

Cash payments at current level for small payments.

Cash charges could even decrease due to increased competition.

The second alternative: to decrease through-charging via merchants

- ◆ If merchant charges (including interchange fee parts) were reduced, banks and credit card companies would find it necessary to charge customers more directly and transparently, for example using ATM and credit card charges.
- ◆ In turn, merchants would decrease their payment mark-ups in their prices (when there is sufficient competition)
- ◆ This kind of radical change to the current payment conventions, would probably require legal and regulatory backing
- ◆ Reducing merchant through-charging would increase price transparency, as the consumer would see the total costs of any given payment instrument in the same price list of his service provider

Would it be beneficial to consider means of limiting the growth of or even reducing through-charging via merchants?

Negative side effects of current hidden pricing

- ◆ Cost differences between instruments are disguised
- ◆ Customers often select an inefficient instrument when they cannot see the cost differences
- ◆ Competition in payment services is weak, resulting in high hidden prices
- ◆ Payment instrument developments are slow when the cost benefits of efficient instruments are invisible
- ◆ New, efficient service providers and service forms cannot enter the market without the possibility of cross-subsidisation

Transparent prices are of benefit to consumer when there is sufficient competition in the market

Possible barriers to separate pricing

- ◆ Psychological
 - Consumers do not rely on hidden pricing disappearing proportionately to any increase in pricing transparency (merchant prices are assumed to be flexible only upwards)
 - How to get consumers to understand that, if there is sufficient competition regarding the net price, increased competition regarding the mark-up should have a positive effect
- ◆ Legal
 - Abolition of the non-surcharge rules of credit card companies (part of the new Payment Service directive to be implemented by 11/2009)
 - Rules regarding price information and price tags
- ◆ Operational in the change-over period
 - Sufficient and clear information to consumers
 - Reprogramming merchants' point-of-sale equipment

Hidden pricing could be reduced step-by-step, making it easier to assess its effects and fine-tune the solutions over time

Potential savings and benefits in Finland

- ◆ Annually, more than two billion transactions are made in Finland using cash and different kind of cards
- ◆ Considerable savings in the range of EURm 92-196 per annum could be achieved, with moderate volume and pricing changes, for example decreasing the use of cash by a third
- ◆ The benefits to society and consumers will be even larger due to the increased competition and more rapid developments
- ◆ The longer payments are made inefficiently, the more unnecessary costs we generate

Are these savings large enough to motivate the introduction of new pricing conventions?

Note! Although the negative effects of non-transparent pricing seem obvious

the customer often considers free cash services to be a historical privilege, which should not be changed due to other benefits of cash

Comments regarding the two-sided market approach

- ◆ If the merchant would surcharge, the benefits assumed in the two-sided market approach would disappear
- ◆ The basis for two-sided market theory can be found in the subsidisation of cash (and other payment instruments)
- ◆ If the costs/charges of all payment alternatives were transparent, the normal rules of competition and economic theory would apply
- ◆ The economic theory of subsidies concludes that subsidies result in non-optimal volumes and consumption of resources except when subsidies are used to promote social objectives
- ◆ Instead of a cost difference, consumers could be presented with rebates to offset the efficiency differences (eg instead of a 1%/4% merchant charge there would be a 4% charge for both and a 3% rebate for the more efficient one)

Would it be more efficient to move towards direct transparent pricing of payments instead of maintaining an opaque structure of hidden prices and special incentives (credits, rebates etc)?

The charging structure has a large impact on

- customer choices**
- general payment developments**

Thank you for your attention