



Viva the all-electronic euro!

*Reflections on the road towards
the cashless society*

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Outline

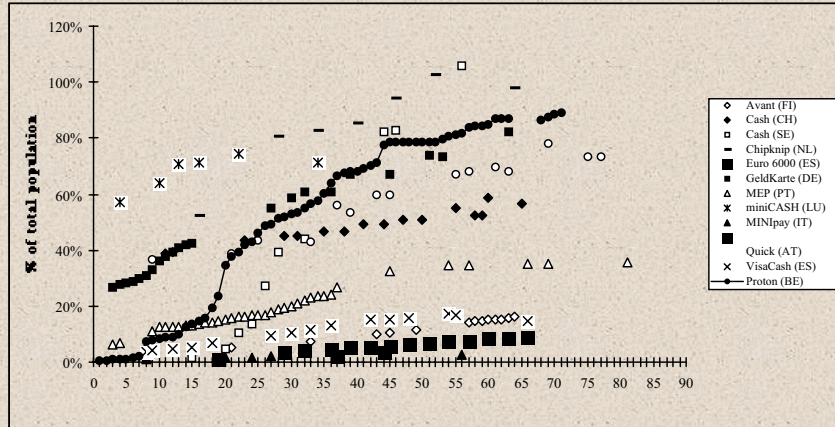
1. Current state of EPs in Europe
2. Should we move to a cashless society?
3. If so, how?

1. E-purses in Europe

- first round-up in 2000, now updated
- covers 16 EP schemes, to varying degrees
- not updated: miniCASH, Moneo, MEP, 4B

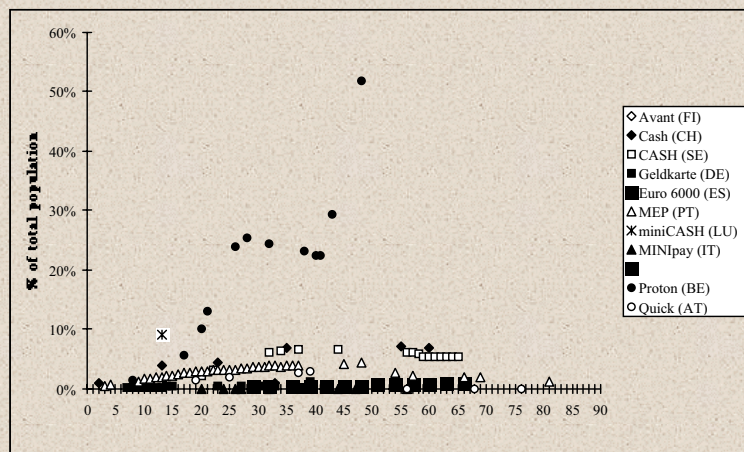
1. E-purses: cards

- not very relevant
- miniCASH, Chipknip
- Proton city-by-city
- # cards not problem



1. E-purses: activated cards

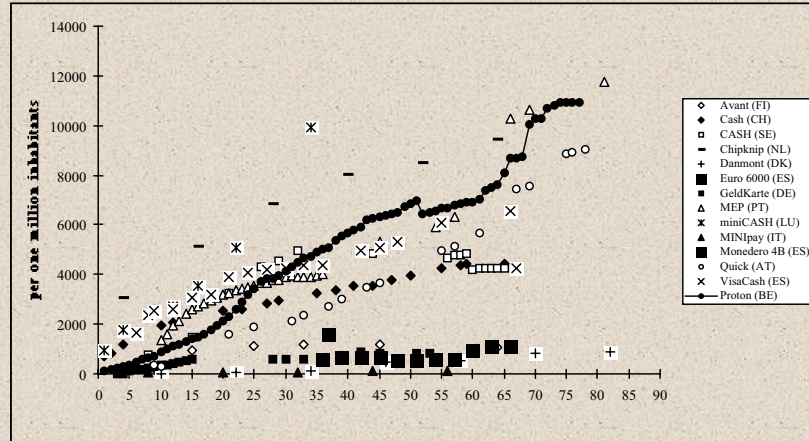
- less data
- activated ≠ active
- different picture
- Proton, but miniCASH ...



1. E-purses: terminals

- 2 > Proton

- Proton: 'euro jump'



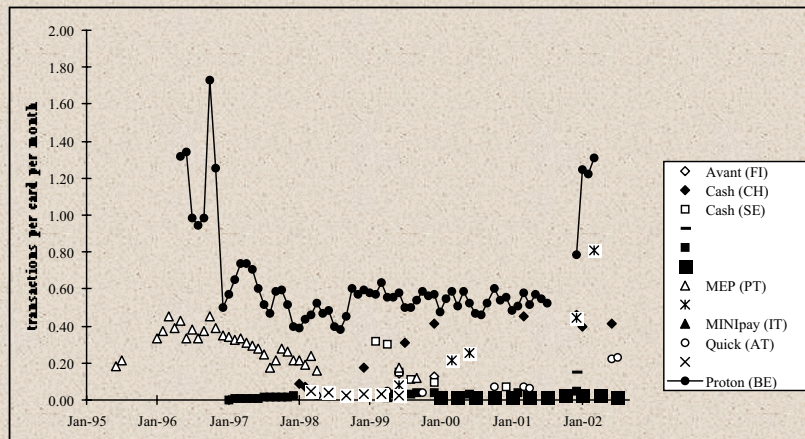
1. E-purses: frequency

- low overall level

- euro impact

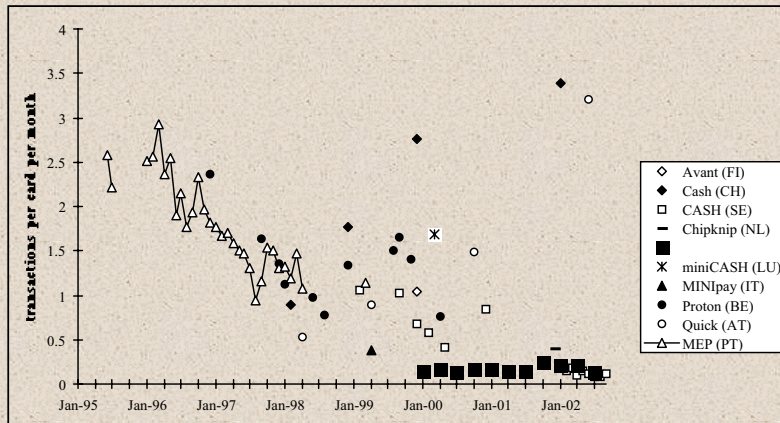
- only Proton > 1

- Proton miniCASH Quick



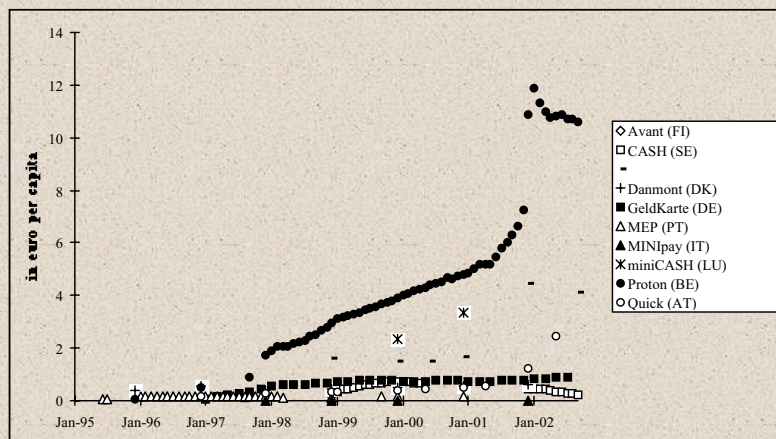
1. E-purses: freq., activated

- overall level higher
- Quick, Cash (CH)
- + Proton, miniCASH, Moneo



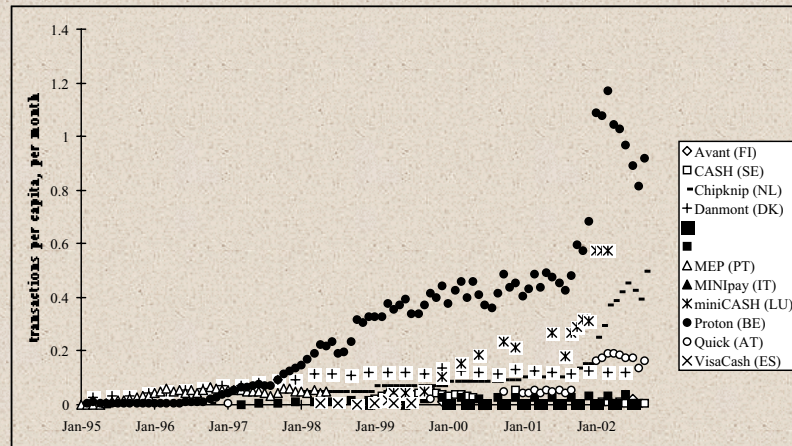
1. E-purses: float

- Proton most advanced
- euro impact for some
- GeldKarte, Danmønt =
- Cash (SE): drop in float



1. E-purses: trx per capita

- similar picture
- as % of currency ...



1. E-purses: euro effect

- positive effect (Dec 01-Jan 02)
miniCASH (+84%), Chipknip (+65%), Quick, Proton (+60%), Moneo (“doublé”)
- no effect:
Cash (CH), Cash (SE), Danmønt, MINIpay, Geldkarte (+2%), Euro 6000
- negative effect: Avant, Visa Cash

>>> hypothesis: (lack of) critical mass <<<

1. E-purses: winners/losers

- ~ NE theory: # terminals & # cards
 - miniCASH > Proton OK
 - Geldkarte < Proton OK
 - Chipknip < Proton ?
- incompatibility may prove detrimental
- converted POS terminals of little use ...

2. A cashless society?

- arguments in favour
 - increased efficiency
 - the underground economy
- arguments against
 - social exclusion; P2P?
 - privacy
 - security

2. Pros: efficiency

- resource cost of cash is high
0.35%-0.56% in BE
- conviction: social cost of e-purse is lower
- but: no proof ...
- early cost studies: cash cheapest for merchants

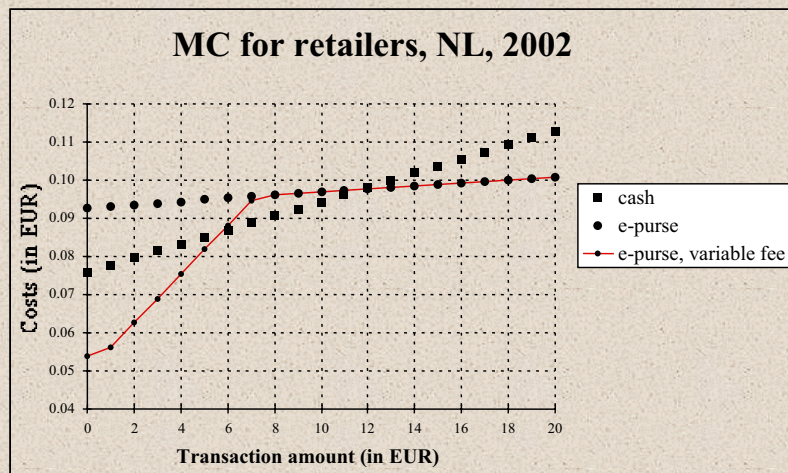
2. Pros: efficiency

- new Dutch cost study
- average cost of e-purse is dropping

	cash	e-purse
1998	0.139	0.216
2001	0.135	0.192
2002	0.146	0.158
- 19 vs. 14 seconds

2. Pros: efficiency

- marginal cost of e-purse is lowest



2. Pros: efficiency

- still room for economies of scale
- Dutch retailers call for 'chip explosion' !

2. Pros: underground

- in BE: some 60% of C not used for legal trx
- similar in other countries
- will only become worse ...

2. Cons

- social exclusion
 - but: network of cash is already eroded
 - in BE: coins in only 30% of public payphones
 - in NL: municipalities collect parking fees electronically
- privacy
 - Goodhart: Orwellian nightmare
 - e-money can be programmed => strike balance
- security (cash as fallback option)

2. Conclusion

- E-money should be promoted OK
- Cash should be discouraged OK
- Cash should be abolished ?

3. How?

Do we need government intervention?

“If the private sector (unaided) attempt to introduce an e-money payment system is ... faltering badly, should the public sector step in to revive this exercise?” (Goodhart et al., 2002)

3. How?: range of options

- market-driven / mixed / govt-driven
- SELT in Singapore
- promotion of cost-based pricing

3. SELT

- no obligation to accept
 - as in US, the Netherlands
 - “Retailers are ... within their rights to specify the types of payment they will accept ... because consumers are negotiating an exchange, not repaying an existing debt” (CBO, 1996)
- BCCS will continue to issue physical cash
 - SELT by 2008, but timing flexible
 - public acceptance is key

3. SELT

- only BCCS will issue SELT
 - banks will procure SELT from BCCS
 - BCCS will take over NETS - CashCard
- AAA, will include P2P and possibly interest !

3. SELT: evaluation

[] = extreme scenario

- ⤴ 'negative fees' provide stimulus
- ⤴ social cost of cash lower / [eliminated]
- ➡ [The underground economy]
- ⤵ social exclusion, privacy, security
- ⤵ government intervention

3. Cost-based pricing: why?

- today
 - account-based, fixed fees \Rightarrow $MC = 0$
 - underpricing of cash
 - hidden charges
- drawbacks
 - unfair, cross-subsidisation
 - misallocation, overuse

3. Cost-based pricing: how?

- cost-based pricing
 - explicit, transaction-based
 - fees \sim resource costs
- advantages
 - fairness
 - gives incentives \Rightarrow efficiency

3. Recent developments

- public debate in the Netherlands
- DNB recommends optional direct pricing
 - consumers against
 - banks: mixed reaction
- DNB: more research on social costs

3. Recent developments

- CPSS consultation paper
 - “does not concern itself with any policy issues arising from the use of cash”
 - “pricing structures that reflect appropriately the level and allocation of costs” => efficiency
 - ! market mechanisms primary engine

3. Recent developments

- ECB issues paper
 - narrow scope; emphasis on standards
 - suggestion: collect data on prices
- European Commission
 - “we will not tolerate cartels”
 - “Brussels competition authorities have promised tough action if they uncover concerted price increases”

Conclusions

1. some EPs are doing better (euro)
2. use of e-money should be encouraged
3. pricing moving to centre stage



More info

- Interested in paper(s)?
<Leo.Van.Hove@vub.ac.be>
- Bibliography on e-money (1500+ ref.)
<<http://epso.jrc.es/>>, under Inventory