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# Why is cash suboptimal

5th November 2015 Harry Leinonen
SUERF, Zurich
Cash on trial, Witness for the Prosecution

### **Current situation**

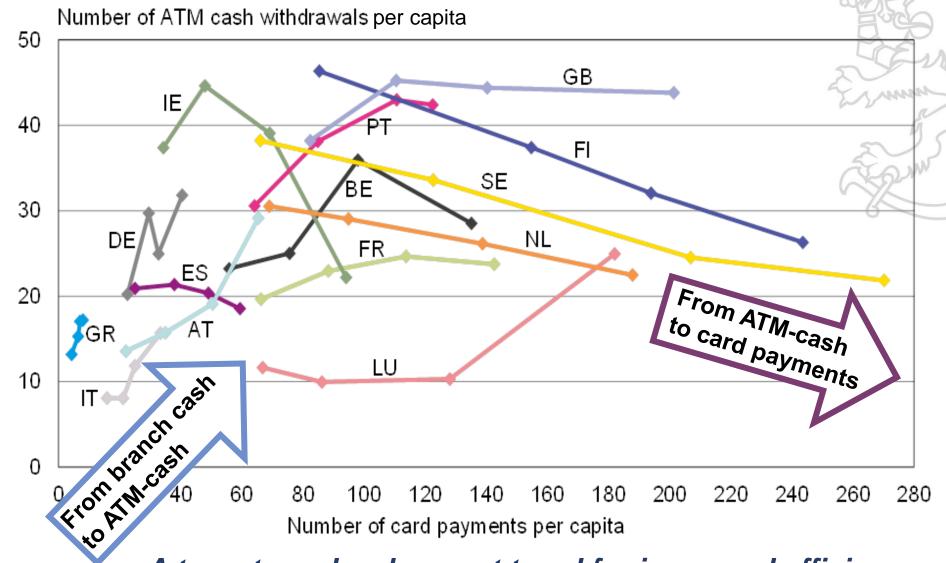
A payment is just a transfer of funds,

which can be made more or less efficiently and

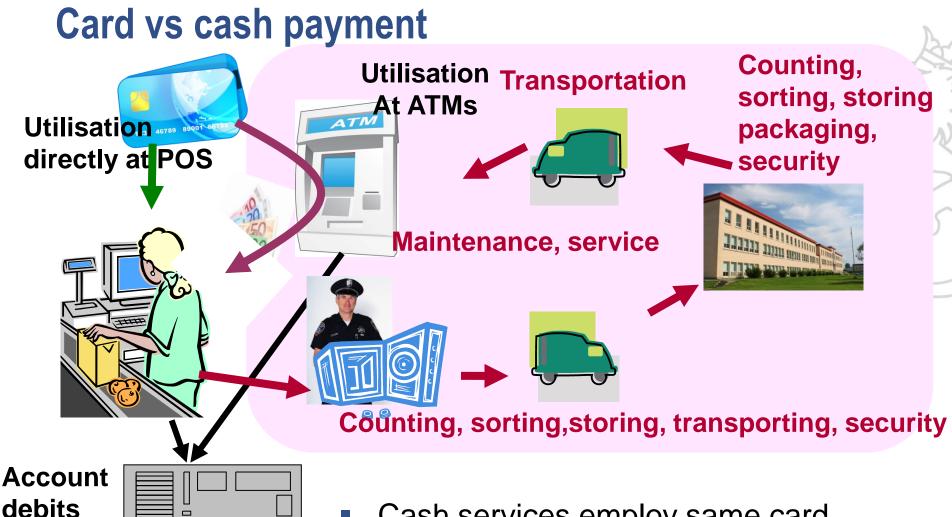
users make their choices among available instruments based on perceived suitability



# Cash withdrawals and card payments per capita, years 2002, 2006, 2010 and 2014



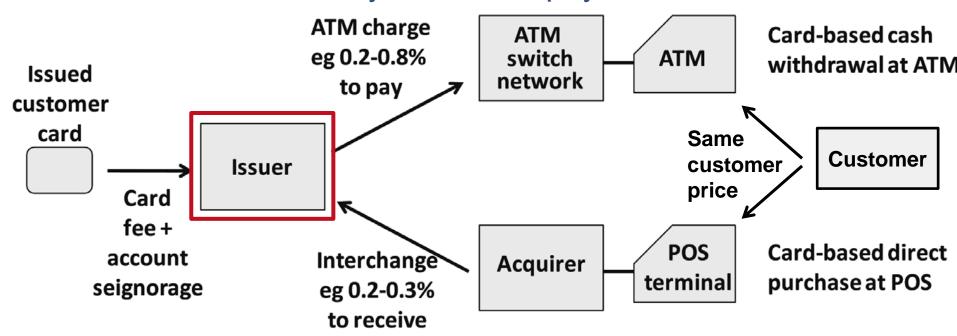
A two stage development trend for increased efficiency



- Cash services employ same card
- Cash services require account debits
- Higher costs due to ATMs & cash logistics

Cards/mobile payments more efficient especially when using NFC-proximity payment, feat

### Cash is subsidized by debit card payments



- Interchange fees extracted via merchants will cover cash withdrawal costs (=card payers will cover cash payers' costs)
- The larger POS-volumes the more subsidization

Cross-subsidization affects the pricing mechanisms and results in biased volumes and average costs due non-transparent hidden pricing

See for details European Competition Journal vol 7 number 3 Dec 2011

Harry Leinonen: Debit card interchange fees generally lead to cash-promoting cross-subsidisation

Including figure above

### Cash is an expensive payment instrument

- Higher direct payment processing costs
- Higher indirect costs
  - Losses/costs due to robberies, assaults
  - Safekeeping costs
  - Tax evasion costs
  - Black economy costs

Savings in the range of 1-2 % of GDP are achievable (see calculations of prof. David Humphrey & al and ECB cost findings)



## The court case

## Whom and why to prosecute

- Regulators for maintaining regulatory arbitrage
- Politicians and consumer organizations for lacking courage to reduce hidden pricing
- Academics for making biased analyses

Cash is given preferential treatment without reasons.

Is it a relic of antiquity, which is just maintained due to legacy investments and vested interests?

### Regulatory arbitrage

- Cash is the only legal tender, although not available in the Internet or on mobiles or electronically
- Anonymity is accepted for cash, but not for card and other account payments
- Central banks subsidize cash transports and processing
- Allowing interchange fees on card payments improves the competition situation for cash

Would cash would become highly uncompetitive without this regulatory arbitrage and disappear from the market?



# Increased price transparency would affect customer choices towards cost efficiency

- Even small fees will result in cost efficient choices,
   compare with pricing plastic bags in supermarkets
- ATM-services carry costs and withdrawal fees would increase the use of cards directly at point of sale
- Efficient switching to a new technology level requires visible cost benefits for the customers
- Consumers assumes/believes that cash carry no costs because politicians and consumer organizations lack the courage to remove this factual and logical error of a "free lunch"

Would cash disappear, if it had to face open cost-based price competition?



### MIT = Merchant Indifference Test = or Major Indifference Trap

By using MIFs to increase merchants' card costs in a setup with forbidden surcharges =hidden price information

- If merchants are indifferent, why would they invest in **EFTPOS-equipment**
- If consumers see no price differences, they lack incentives for change
- If new entrants cannot make their cost efficiency Should we just revert back to general theory? visible, they have severe entrance difficulties

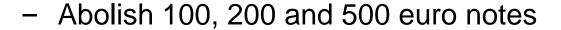
General economic theory: price transparency fosters price competition, which fosters efficiency

Two-sided market theory: increasing biased price information in an already biased non-transparent market would result in increased efficiency MINISTRY OF FINANCE

# How to proceed

### Reduction of cash denominations

- Abolish 1 and 2 cent coins
  - Highly inefficient coins without any practical value



Notes used significantly for criminal transfers, tax evasion,
 money laundry etc, not needed for legal transactions

Central banks seems to want to support manual labor in handling petty coins and criminal activities by providing high value notes



### Increased price transparency and competition

- Cost+-based pricing of central banks' cash services
- Moving to zero interchange fees for all payment instruments =all users pay fees to their own service providers only (compare with GSM roaming charges)
- Allowing surcharging of direct payment instrument costs except for one generally available payment instrument
- Creating one common payment instrument scheme and associated common standards for each type of payment instrument

Cash and other basic payment instruments are bulk services and should be treated as such (which can be topped up by extra services).

### Introduction of modern and parallel legal tender

- Cash is an old fashioned legal tender in the current electronic environment
- Basic payment accounts and instruments are available to everyone and could also become legal tender
- In an electronic world, legal tender will imply common technical standardization of fund transfers

In 21th century modern legal tender standardization would achieve same benefits a cash standards in 19th/20th century

# Similar anonymity/identification requirement across payment instruments

- Audit trail and KYC requirement are very different for cash and account instruments
- Modern technology could be used to introduce audit trails and KYC for cash payments (compare with Bitcoin ledger)
- Card customer data could be made more non-transparent for market participants, without reducing authority information

Is the regulatory arbitrage in audit trails/anonymity/identification the main source for current cash demand?

Cars have register plates to reduce criminality, hit&run situations etc.

Would <u>all</u> payment instruments also need "register plates",

when used on public payment highways

to provide <u>balanced</u> anonymity?

### **Summary:**

### Today we can witness

- regulatory promotion and subsidization of cash usage leading to
- over-employment of inefficient cash payments resulting in
- unnecessary overall costs and resources paid by
- consumers and the society at large.

Why are we so keen on carrying around ancient bits of paper and metal in the age of Internet?

Why do regulators maintain regulatory arbitrage and promotion of inefficient cash usage?



### Questions?

