



The persistence and future of cash

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Malte Krueger

PaySys Consultancy (Frankfurt)

University of Applied Sciences Frankfurt

E-Finance Lab, Goethe University Frankfurt



PaySys Consultancy

- Independent consultancy founded in 1993
- Focus on card-based payment systems (incl. cash withdrawals)
- Founding member of EPCA
- Platform provider for industry discussions
- Services:
 - Strategic consulting
 - Benchmarking studies
 - Market research
 - Implementation assistance
- Geographical scope: Germany and other European countries



PaySys Consultancy

	Issuers	Acquirers	Processors Schemes Other PSPs	Merchants	Regulators
SEPA-Strategy					
Business Case					
Market Studies					
Benchmarking					
RFPs and RFIs					
Regulation					

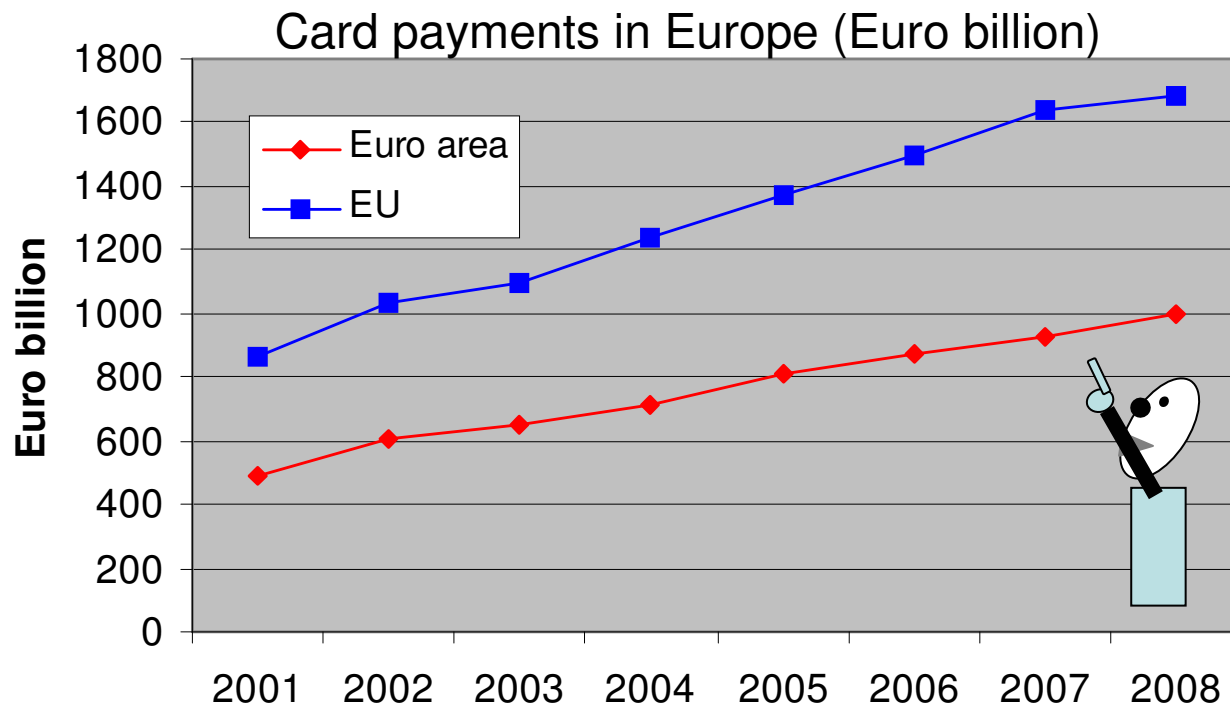
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- **Cash and card trends**
- The usage of cash
- The costs of cash and the potential for automation
- Beyond costs



Cash and card trends

The value of card payments goes up!

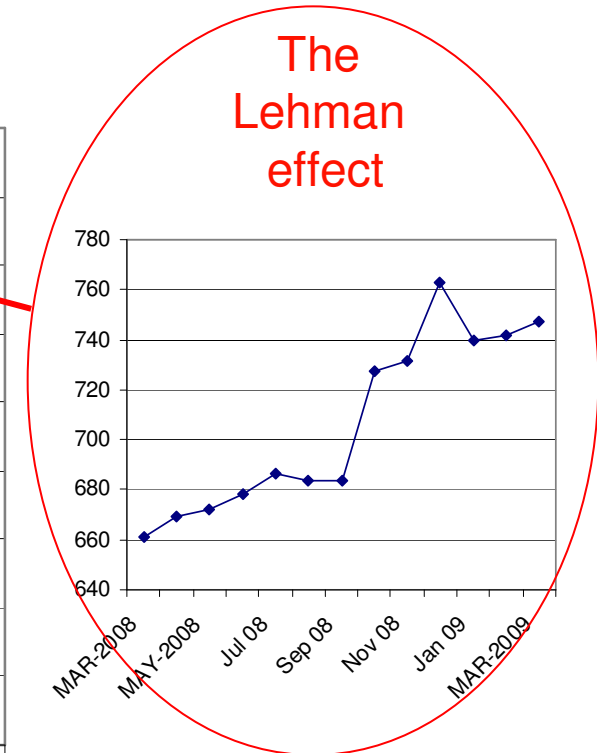
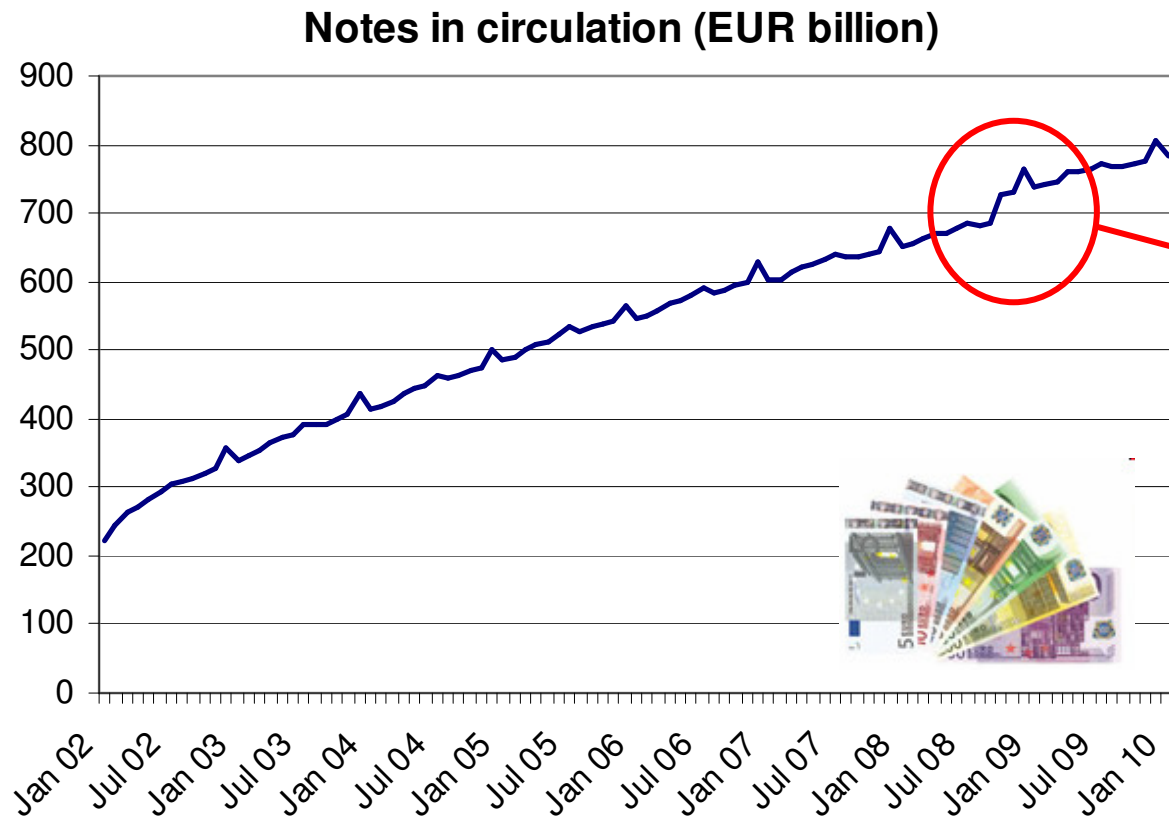


Cash and card trends

But...

Cash and card trends

Bank note circulation does not go down!

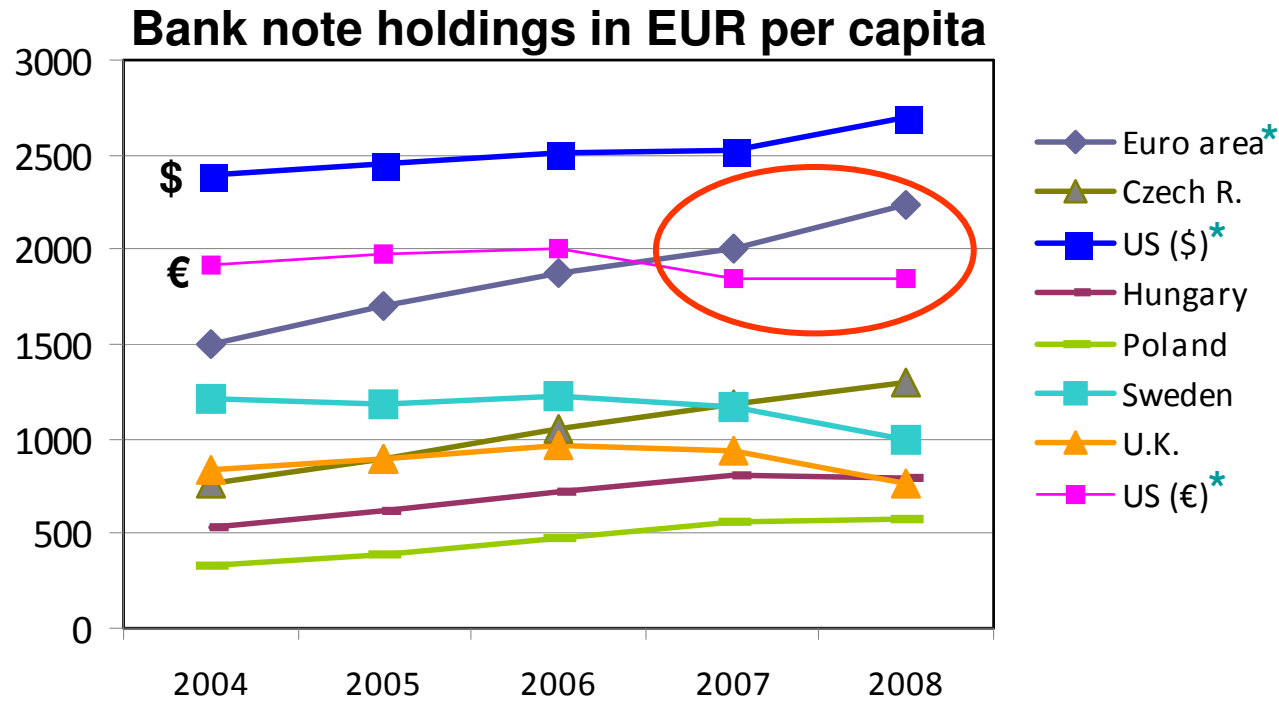


Oct. 2008:
+EUR 43.7 billion

Source: ECB and own calculations

Cash and card trends

Bank notes per capita: Euroland ahead of the US



Source: ECB, BIS and own calculations

*: X% of Euro and Dollar bank notes circulating in other currency zones

Cash and card trends

High cash holdings in the Euro area

Is there scope for more?

There certainly is!!!

Per capita cash holdings in Switzerland: USD 6,400 

Per capita cash holdings in Japan: USD 7,400 

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The usage of cash

What do people do with all this cash?

The canonical three functions of money



- Medium of transactions  legal / illegal trx. + local / foreign trx.
- Store of value  legal / illegal + local / foreign
- Unit of account  Does not make it necessary to hold cash.

The demand for transactions' balances is relatively small.

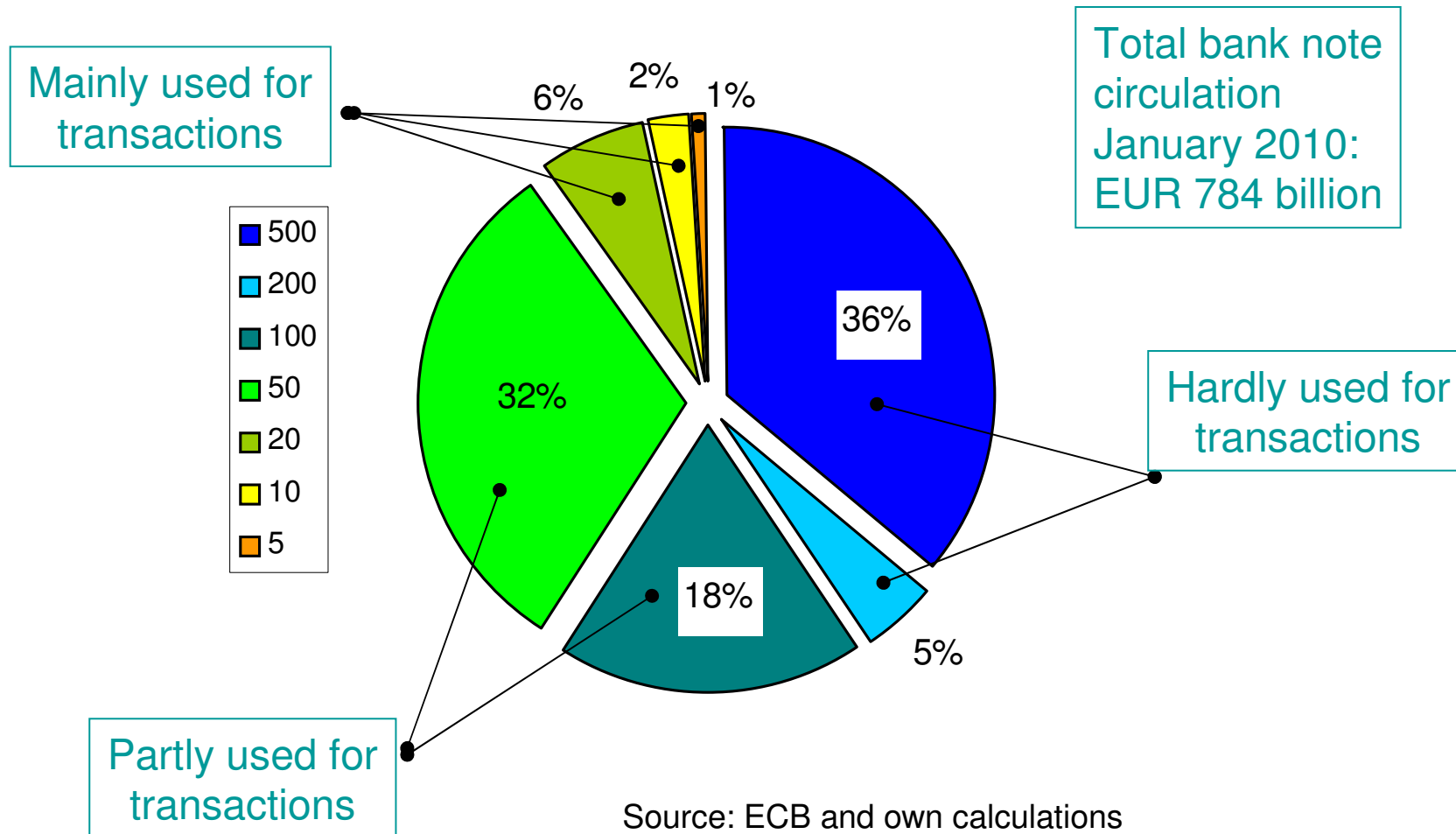
A large fraction of the bank note circulation must be held as store of value.

In the case of the Euro, there is some foreign circulation.

In the case of the dollar, there is a large foreign circulation.

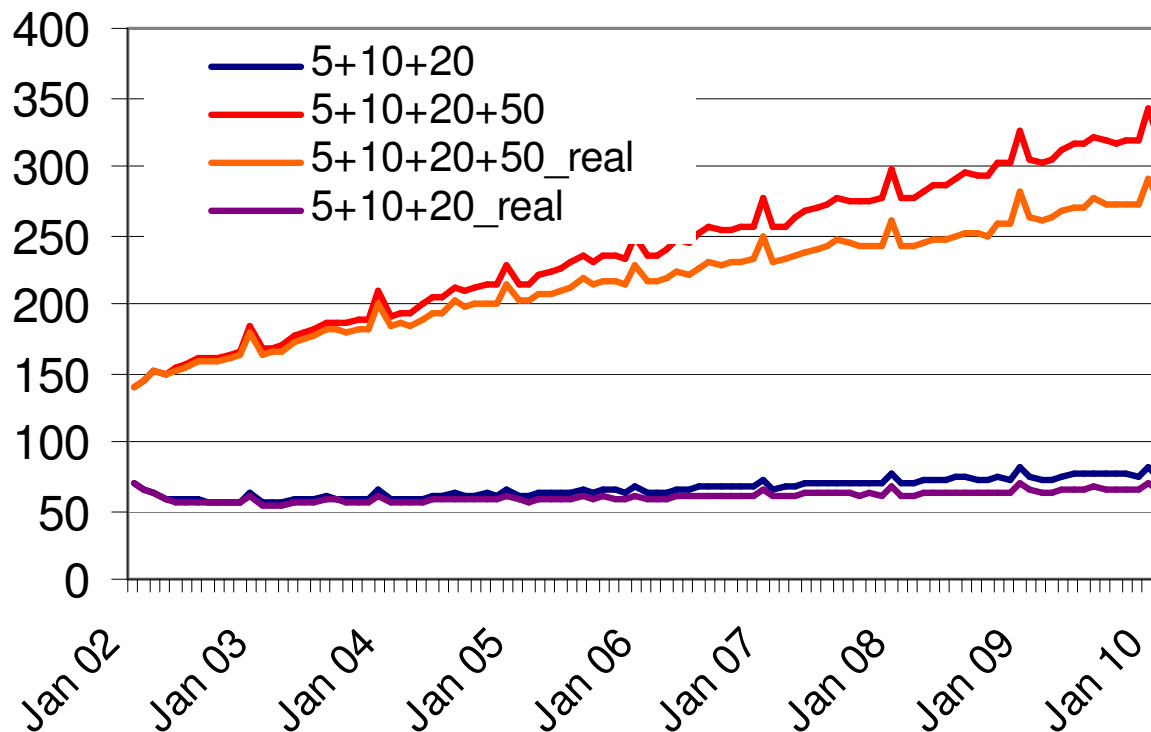
The usage of cash

The denomination of Euro bank notes



The usage of cash

Small denomination bank notes



The stock of small denomination bank notes rises – albeit slowly.



Increased use of cards has not had a dramatic effect on transactions' balances.

real: figures deflated with the HICP price index

Source: ECB and own calculations

Bank note circulation January 2010:
5+10+20: EUR 75 billion
5+10+20+50: EUR 322 billion

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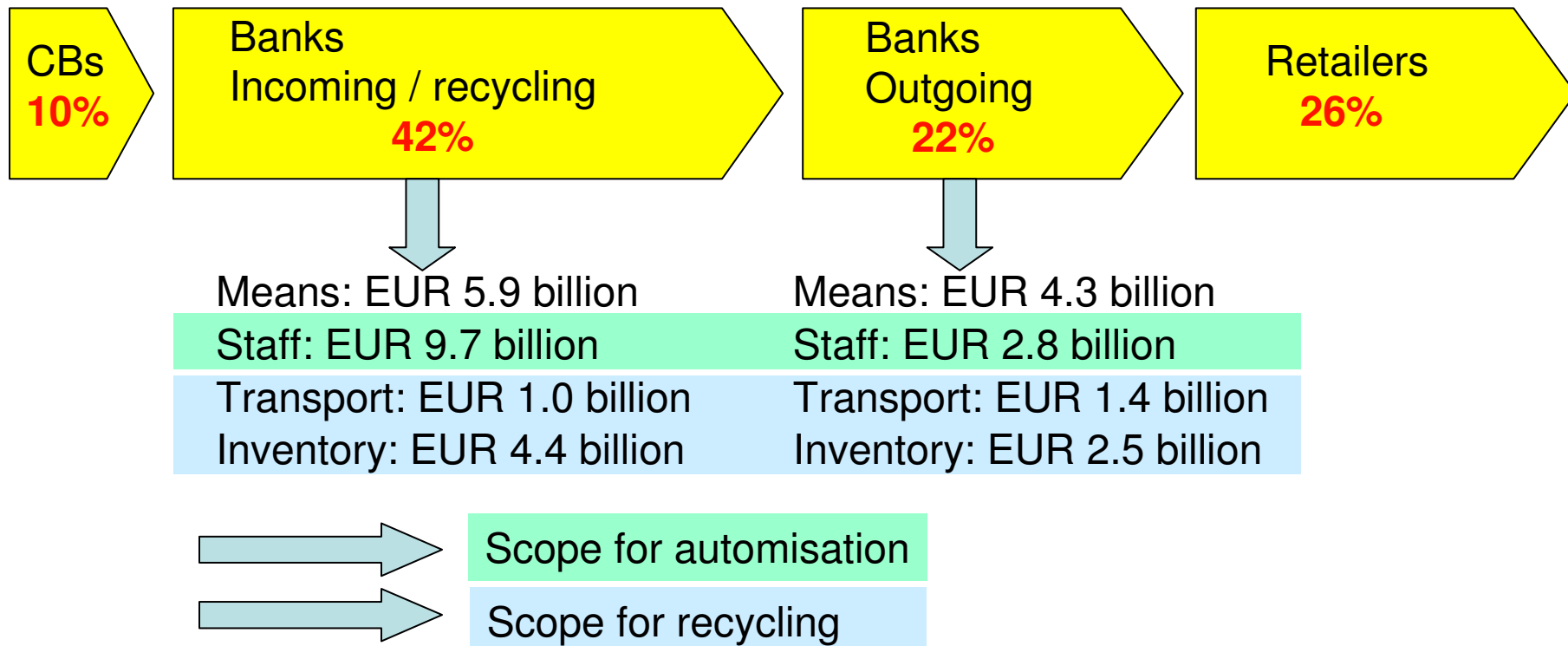
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The costs of cash and the potential for automation

EPC Cash working Group 2003 Costs of Cash of Banks and Retailers

EUR 50 billion



The costs of cash and the potential for automation

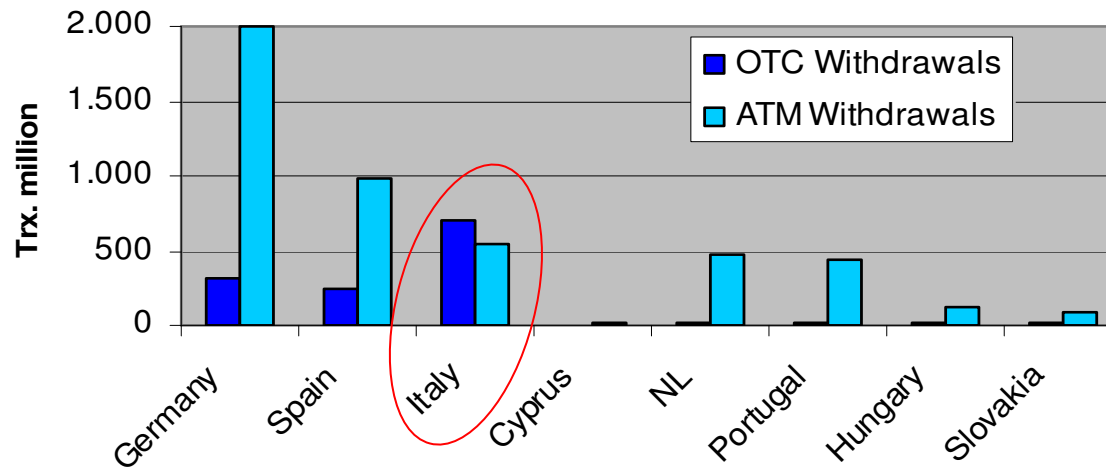
Since 2007, the Eurosystem not only provides data on ATM transactions but also on OTC cash transactions.

For the first time, we have data on the flow of cash - the flow out of and into the banking system.

Unfortunately, these data are available only for a minority of countries.

The costs of cash and the potential for automation

Cash withdrawals: OTC versus ATM

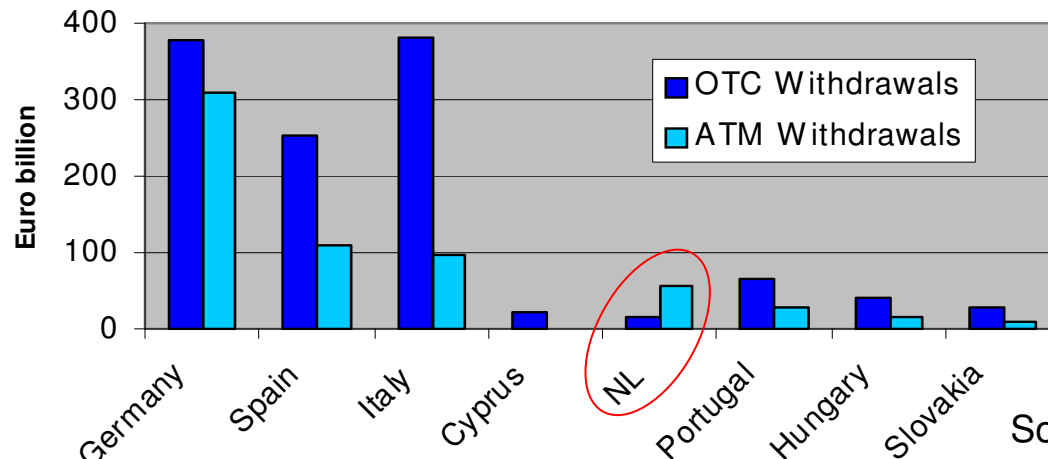


Transactions

A lot has been achieved.

BUT

There is scope for more!

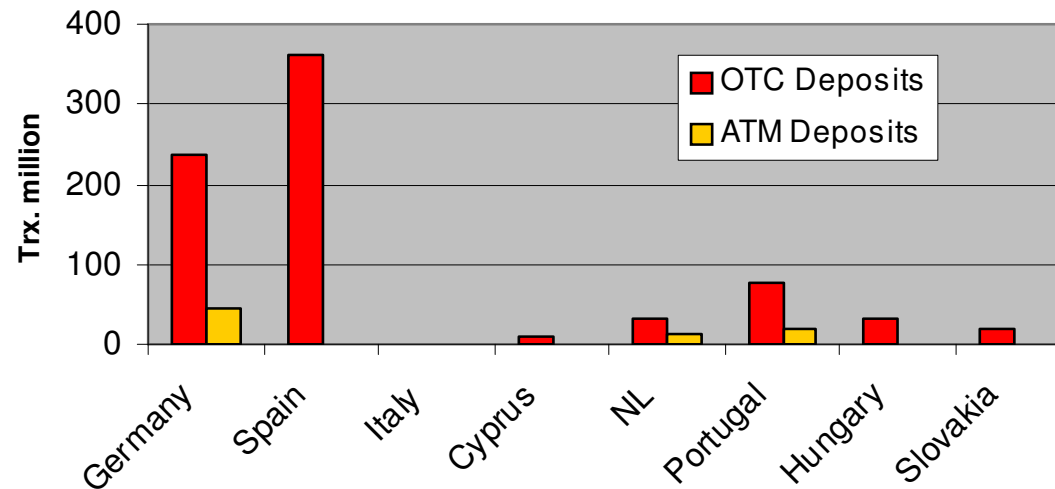


Euro value

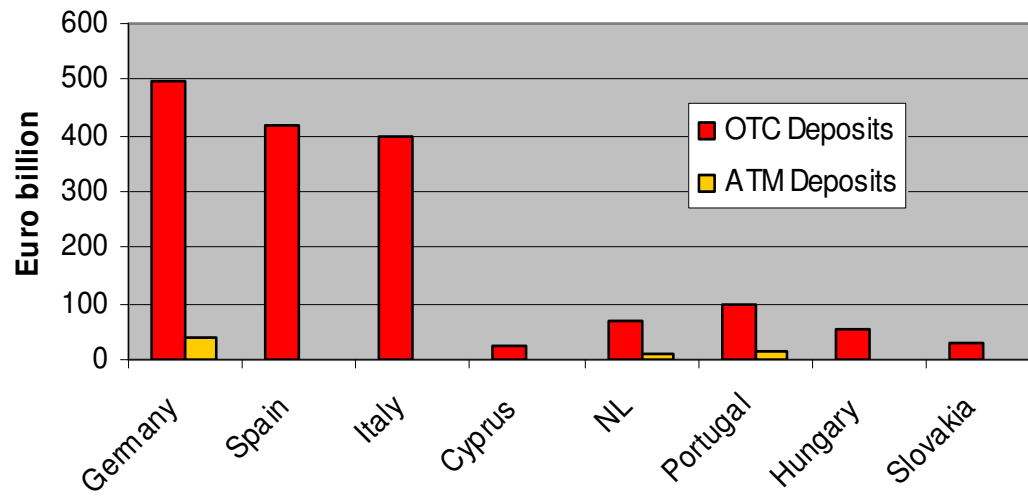
Source: ECB and own calculations

The costs of cash and the potential for automation

Cash deposits: OTC versus ATM



Transactions



Euro value

Automation has only just begun.

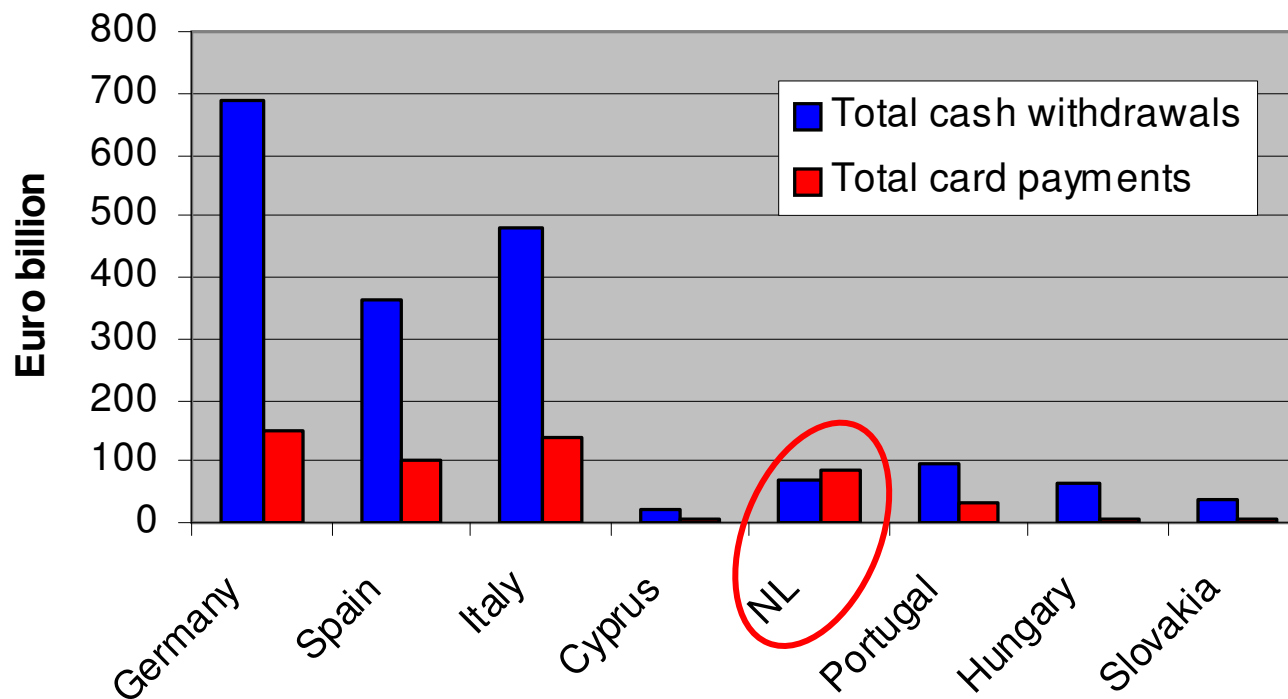
Source: ECB and own calculations

The costs of cash and the potential for automation

Cash and card payments compared

➡ Euro value of card payments

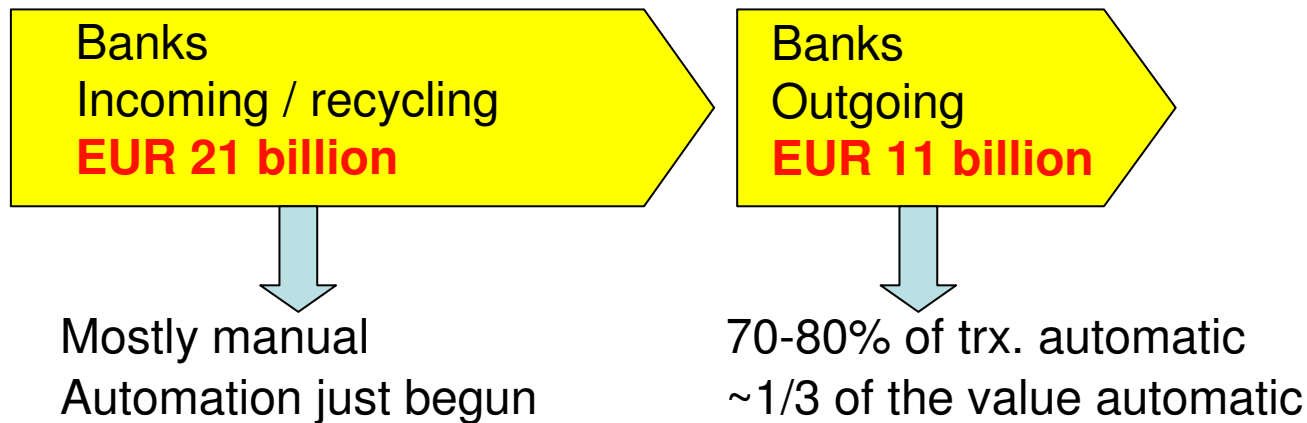
➡ Euro value of cash withdrawals as a proxy of the value of cash payments



The costs of cash and the potential for automation

EPC Cash working Group 2003 Costs of Cash of Banks and Retailers

EUR 50 billion



→ The difference in costs between incoming and outgoing provides a rough estimate of potential cost savings

→ Taking potential efficiency gains on the outgoing side into account such cost savings are even larger

The costs of cash and the potential for automation

Potential costs savings: an example

“Today”:

Share of counter trx.

- Incoming: 100%

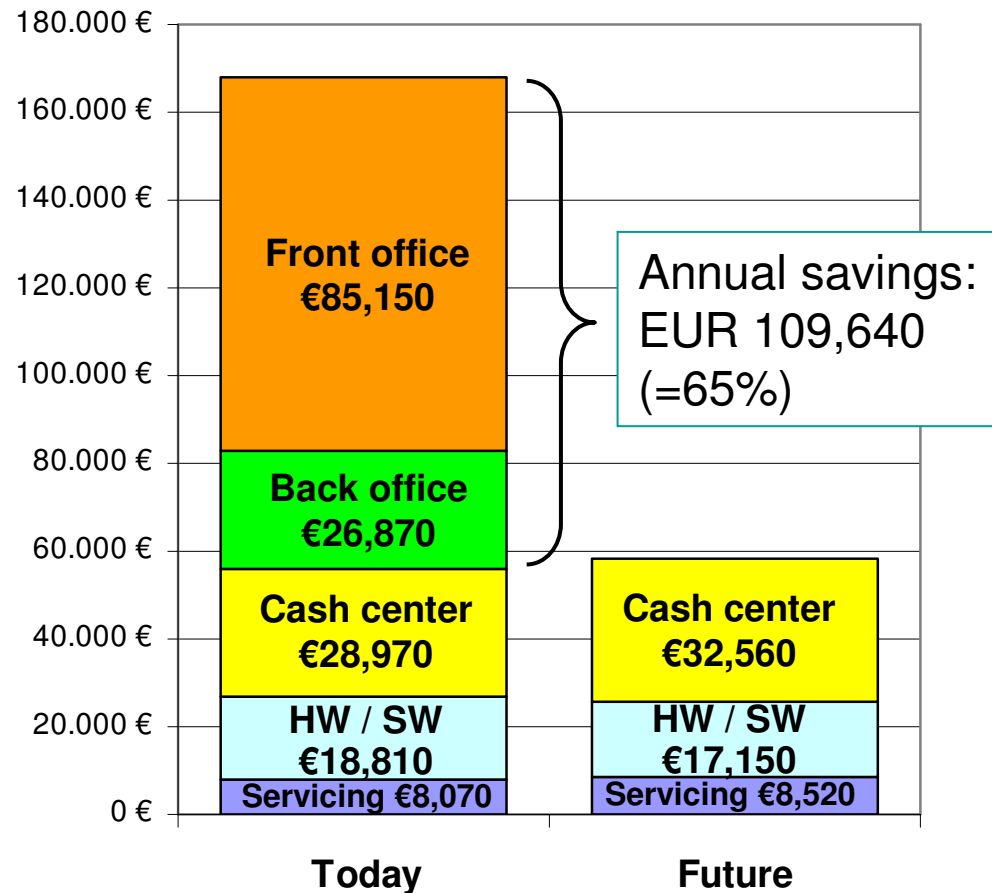
- Outgoing: 30%

Use of ATM and automatic safe

“Future”:

Share of counter trx.: 0%

Use of recycler



Source: WINCOR NIXDORF

The costs of cash and the potential for automation

Back to the EPC Cash Study:

Much less noticed than the cost estimate of EUR 50 billion is the EPC estimate of the volume of cash transaction

360 billion cash transactions per year

Combining the two estimates yields costs per transaction of

14 cents per year

Given the enormous scope for automation a value below 10 cents per transaction does not seem unrealistic.

Not bad for an all-purpose, low/high value, C2B/B2C/B2B/C2C, anonymous, offline payment instrument with fairly low fraud rates.

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Beyond costs

A look at deposits

Value of overnight deposits

	Total deposits	Retail deposits*
Euro area	EUR 3.581 billion	EUR 1.791 billion
EU ex UK	EUR 4.046 billion	EUR 2.023 billion

*: assuming a retail share share of 50%



Net interest earnings on overnight deposits

interest paid \	0%	1%	2%	3%
Euro area	EUR 56,4 b.	EUR 38,5 b.	EUR 20,6 b.	EUR 2,7 b.
EU ex UK	EUR 63,7 b.	EUR 63,7 b.	EUR 63,7 b.	EUR 63,7 b.

interest earned: average EONIA 1999-2008: 3,15%

Beyond costs

A quote from my favorite theorist of money and banking



Willie Sutton

„A bank is where
the money is“.

**If the money is not in the bank anymore –
what does that mean for the wonderful bank-business of
issuing zero-interest liabilities?**

Thank you for your attention!

Malte Krueger



PaySys Consultancy GmbH
Im Uhrig 7
D-60433 Frankfurt am Main
Tel.: +49 69 95 11 77 -12
E-Mail: mkrueger@paysys.de
URL: www.paysys.de

PaySys is German member of the
European Payments Consulting Association



Fachhochschule Frankfurt/M.
Nibelungenplatz 1
D-60318 Frankfurt
Tel.: +49 69 1533 3877
E-Mail: mkrueger@fb3.fh-frankfurt.de
URL: <http://www.fh-frankfurt.de/>



E-Finance Lab
Goethe-Universität Frankfurt

