



**hochschule aschaffenburg**  
university of applied sciences

# **The Cashless Society. A case for plumbers or visionaries?**

**Presentation at the  
The Bank of Finland conference on Going Cashless**

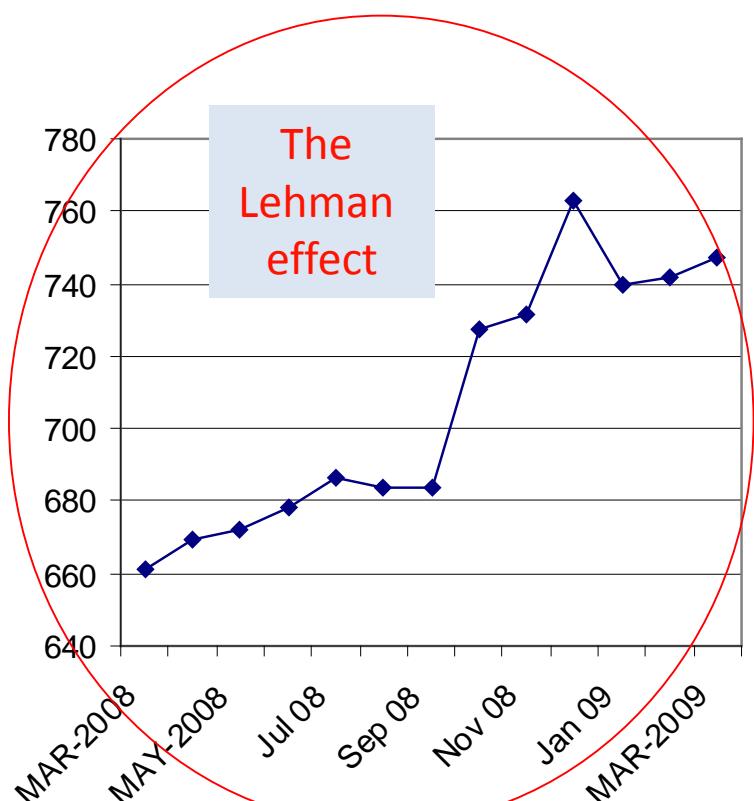
**14 June 2016 in Helsinki**

**Malte Krueger**

Hochschule Aschaffenburg

University of Applied Sciences

## Bank runs with and without cash



Oct. 2008:  
+EUR 43.7 billion

We are used to see bank runs as accidents with a potential to create economic disaster.

But a “run” on banks may actually have beneficial results.

If all “runners” find that they actually can take out “their cash” they are no longer worried.

An emerging panic is drowned in cash and confidence is re-instated.

Arguably, this happened in October 2008.

## Cash as means of settlement between banks and non-banks

If there is no cash, there is no way in which the public can take its funds out of the banking system. It is trapped within the banking system.

- At times, that may prevent panic.
- But at times, it may increase panic.

It is highly likely that the public will not accept such a situation. Already today, these are calls for:

- The introduction of narrow banks (Swiss “Vollgeld-Initiative”)
- Non-bank access to central bank accounts (German insurer Talanx sued the Bundesbank)

## Getting closer to a cashless society (1)

Segendorf and Wretman (Sveriges Riksbank) highlight some problems:

- shortcomings in capacity in both the fixed and mobile networks
- access to technological equipment: far from everybody has such equipment and is willing and able to use it
- the lack of transaction and withdrawal charges is a special challenge for cash services, particularly in smaller communities.

For the moment the government wants to make sure that basic payment services (incl. cash services) are available (the task has been assigned to the Swedish Post and Telecom Authority (PTS) and county administrative boards).

## Getting closer to a cashless society (2)

On January 1, 2002 Euro cash has been introduced.

For a German frequently traveling to Holland that made life easier.

Unfortunately, at the same time, the city of Rotterdam decided that parking meters would only accept ChipKnip. So, once again, I had to get a domestic means of payment.

In a cashless world, either

1. foreigners (outsiders) must be able to get domestic means of payment and/or
2. the means of payment must be internationally interoperable.

I think, in the long run, solution 2 will prevail. In practice, this implies that there will be only a few international schemes that cover both, domestic and x-border payments.

## Electronic cash equivalents

It is conceivable that an anonymous electronic cash substitutes could be created.

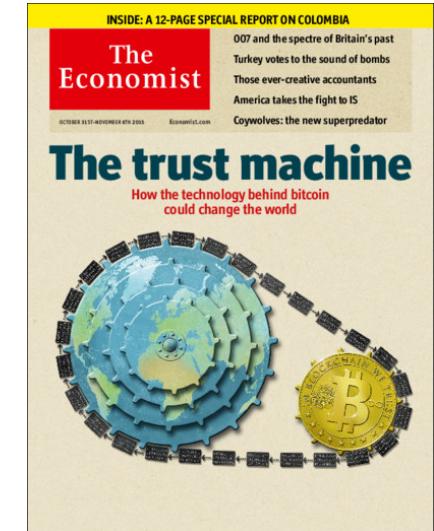
At the moment, Bitcoin receives a lot of attention.

But:

From the point of view of uses, such products are complex and it is difficult to ascertain, how well anonymity is protected.

From the point of view of governments, such products would be worse than cash:

Criminals, terrorists, etc could send around millions across the globe with one click.



**“Blockchain is currently a solution looking for a problem.”**

*Michael Salmony (Equens)*

One of the proposed problems looking for a solution:

**Securities clearing and settlement**

**Distributed ledger technology (DLT) is seen as a potentially disruptive force that may transform this market.**

## **DLT versus central ledger**

Question 1:

Who has access to information and how fast?

The charm of DLT seems to be that information is provided almost in real-time to a wide set of participants.

Why should that be impossible in a system with a central ledger?

Do we need an “access to accounts” Directive rather than a new technology?

## DLT versus central ledger

Question 2:

Validating and updating – a task performed by everyone or just a few?

If these tasks are carried out by only a few participants, what's the difference to a central ledger with “a few” back-ups?

## **“Plumbers and Visionaries” -**

this is the title of Peter Norman’s book on the history of the securities settlement industry.

These days, the visions mostly seem to encompass scenarios in which distributed ledger technology disrupts legacy models of clearing and settlement.

Admittedly, visions may help to find the right path to the future.

But not any visions lead into the right direction.  
Therefore, some people are sceptical of visions.

**“Anyone with a vision should go and see a doctor.”**

**Helmut Schmidt**

# Thank you.

Malte Krueger

Hochschule Aschaffenburg  
Würzburger Str. 45  
D-63743 Aschaffenburg  
Tel.: +49 6021 4206 787  
E-Mail: malte.krueger@h-ab.de

