E-krona, Money and Trust Among Strangers

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The views expressed are those of the presenter and do not necessarily represent the views of De Nederlandsche Bank or the ESCB.

Introductory Remarks

Money and payments are absolutely essential. But “payment economics” is complicated because of the interactions of a set of interdependent bilateral relationships. I look from a more “industrial organization” viewpoint.

Cash is declining (but not everywhere..!), e-commerce on the rise, technological change faster than ever. Time for CBDC, but what about design and adoption?

Design is important. Various issues play a role: financial stability, legal tender, usage and acceptance, networkeffects, value vs account-based, some unpleasant exhange rate arithmetic

Central banks care for monetary and financial stability

Legal tender of cash and CBDC

Cash declines and retail starts refusing cash at the point of sale

In the Netherlands, supermarket chain Marqt allows only cards. Is that legal..?

Legal tender is a complex issue across different jurisdictions. Effectively, it points to a "bargaining problem" between consumer and retailer.

According to the EC and ECB:
- mandatory acceptance (unless explicitly agreed otherwise)
- legally recognized repayment of debt
- at face value, no additional fees or cost

How is it “solved” in the Netherlands: clarity and transparency. E.g. using signs/stickers at the entrance/checkout or via websites. Consumers and retailers “agree”.

CBDC may impact the notion of legal tender. In a <u>dual</u> system with both physical cash and CBDC, is a retailer “forced” to accept both..?

Usage and adoption

Retail cost of accepting cash is not zero! In NL in 2014, cost of cash for retailers estimated at 536 mln euro…

If CBDC is cheaper to accept than cash, retailers may want to steer consumers to using CBDC (killer app via the phone?)

If CBDC is more expensive to accept, why would retailers want to adopt it?

In a “two-sided” payment market, preferences, costs and fees, network effects, competition with other payment instruments determine total demand for this (new) payment service.

Some other issues

In a dual system, how do you maintain an exchange at par between the Krona and the E-Krona when preferences over usage differ?

Indeterminacy: nominal exchange rates between two perfectly substitutable "fiat" (i.e. inherently worthless) currencies is indeterminate (Kareken & Wallace, 1981)

Not only privacy but also safety issues. Counterfeiting versus cybercrime. Data protection and fraud prevention (and its cost) become increasingly more important

Why the "CB" in CBDC? It leaves large footprint of CBs. Could DC be privately issued? Initial volatility and speculation may be "growing pains": they may decrease when DC usage increases

Tack!