

Cashing Out? Some Issues on the Way to a Cashless Economy

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Why (and when) do we use cash?

- Transaction purposes: Cash is a means of payment
 - The original function of banknotes
 - Cost saving achieved compared to metallic money
 - Account-based media are the alternative in most transactions
- What determines the Transaction domain of cash?
- Previously: Size of the transaction
 - In Whitesell (1989, 1992), the size of the transaction determined the instrument used in each payment
 - Cash best in small payments: transaction/handling cost increases with the size of payment; high holding cost (interest foregone)
 - Account-based media have fixed transaction cost; lower holding cost
 - Result: cash dominates in small payments, account-based media dominate in large transactions
- Now, the relative costs of payment media are changing
 - Technology reduces transaction costs for account-based media and emerging cryptocurrencies
 - Unit costs of the cash infrastructure are becoming relatively more important



The vanishing (private) business case for cash

- The *transaction domain* of cash may be increasingly determined by the characteristics of customers and the merchants, not the size of the transaction
 - Marshall McLuhan (1964): "Money is a poor man's credit card"
 - The customer groups who are not able to use electronic payment media are shrinking and not commercially attractive
 - **Result: banks will no longer be interested unless required**

- Is the emerging market solution optimal?
 - What are the network externalities of using cash?
 - Are card payers threatening the fringe groups with exclusion?
 - What are the competitive effects on the payment industry if cash is no longer a relevant alternative to other payment media?
 - If the cash option is not present, and the card industry is oligopolistic, what happens to transaction charges?



Questions for Central Banks and Regulators

- What should be the cash policy of the central bank?
- How much the Central Bank should optimally spend on currency-related services?
 - Competitive solution: use all profit from seignorage for serving cash users
 - Monopoly solution: economize to the point that seignorage net of cash service costs is maximized
 - Optimum is somewhere in between!
 - With lower interest rate, the optimal spending is lower too
- Should the private sector be required to provide some currency supply services?
- Should the general acceptance of cash be a concern? In what transactions?
- What is the role of Legal Tender norms in the increasingly cashless payment landscape?



What is Meant By Legal Tender?

- The Manifestations:
 - Banknotes issued by the central bank
 - Coin (in the the Euro area, up to 50 pieces in a single transaction)
 - Treasury paper currency in some cases (e.g. United States notes)
 - Central Bank deposits (bank reserves), in practice
 - NOT privately created euros or dollars!

- Possible meanings of the concept:
 - 1a. Obligation to accept in current transactions
 - 1b. Obligation to accept in current transactions unless preannounced
 - 2a. Obligation to accept in discharge of any monetary debt
 - 2b. Obligation to accept in discharge of debt unless otherwise agreed

- The adherence to meanings 1 or 2 varies across countries



European Commission's Recommendations on Legal Tender (2010)

- The concept of legal tender should rely on three main elements:
 - a mandatory acceptance of banknotes and coins,
 - for their full face value,
 - with a power to discharge debts.
- The acceptance of payments in cash should be the rule: a refusal is only possible if grounded on reasons related to the 'good faith' principle (for example, if the retailer does not have enough change).
- Similarly, the acceptance of high denomination banknotes should also be the rule.
- No surcharges should be imposed on payments in cash.
- Member States should refrain from adopting new rounding rules to the nearest five cent.



Interpreting Legal Tender in the U.S.

- Section 31 U.S.C. 5103: "United States coins and currency are legal tender for all debts, public charges, taxes, and dues."
- According to the Fed, this means that "all United States money as identified above is a valid and legal offer of **payment for debts** when tendered to a creditor."
- There is, however, "**no** Federal statute mandating that a private business, a person, or an organization must accept currency or coins as **payment for goods or services**."
- Private businesses are **free to develop their own policies** on whether to accept cash unless there is a state law which says otherwise."



Reasons for Legal Tender Legislation: The Good, the Bad, and the Ugly

- There are different motivations for Legal Tender legislation:
 1. Standardization of money
 - Define a single unit of account, this needs a standard
 - Create a generally accepted means of payment
 - Already present in the metallic systems
 2. Government finance motivation
 - Allow the Government to pay its bills with finality
 - U.S. "Greenbacks" were a typical case
 - Recipe for inflation?
 3. Financial stability motivation
 - Legal Tender the basis for the Central Bank's absolute liquidity
 - Makes effective Lender of Last Resort role possible
 - **Probably necessary for financial stability**
 - Bagehot's "Lombard Street" a classic exposition



Walter Bagehot: Lombard Street (1873)

- Generally nothing is gained by holding the notes of a bank instead of depositing them at a bank. But in the Bank of England there is a great difference: their notes are *legal tender*. Whoever holds them can always pay his debts, and, except for foreign payments, he could want no more.
- (...)
- The only safe plan for the Bank is the brave plan, to lend in a panic on every kind of current security, or every sort on which money is ordinarily and usually lent.



Right to Pay vs. Right to Refuse

- Can you refuse a payment of your claim with a deposit in bank X?
- Legal Tender may imply the right to require the payment of debt in a final way
- How does a bank pay a deposit to its depositor in the absence of legal tender?
- How would the debt contracts be written in such a system?
- What is Final Settlement in a Cashless Economy?
 - In practice, deposits at the central bank ("cash reserves")
 - Probably a derivative of the legal tender status of banknotes
 - Access limited to an exclusive group of counterparts (for now at least)
- Do Retail Customers Need the Option of Finality?



Some Tentative Suggestions:

- Is paper currency necessary for transaction purposes?
 - Probably no longer in the near future
- Is some form of Legal Tender needed in the economy?
 - Probably yes, for financial stability purposes
- Can Legal Tender exist without paper currency?
 - Yes, in principle
- Should Legal Tender be accepted in all transactions
 - Not necessarily, but should be accepted in payment of debts
- Who should have access to Legal Tender?
 - Probably everybody should be able to receive it
- What Should Constitute Legal Tender in the Future?
 - I do not know
 - Paper is not necessarily a bad option