

Direct Search in the Interbank Money Market – a discussion

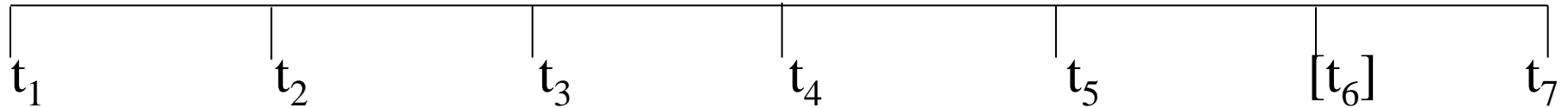
ECB workshop on “Structural changes in money markets:
Implications for monetary policy implementation”

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Structure of the model

- Large number (N) of banks.
- One maintenance period (MP).
- All banks identical at start of MP.
- All banks have to hold the same amount of reserves \bar{m} at end of MP.

Time structure of the model



t_1 : Central bank liquidity auction with allotment $N \cdot m$ ($m \pm \bar{m}$ possible). All banks receive same allotment m .

t_2 : Every bank receives a liquidity shock v . (All shocks identically and independently distributed, do not necessarily sum up to zero.)

t_3 : Every bank decides if it wants to be a lender or a borrower in the interbank money market. (Shown that all and only banks with $m + v > \bar{m}$ want to be lenders.)

t_4 : Lenders and borrowers are randomly matched pairwise. If more lenders than borrowers, some lenders aren't matched (and vice versa). Two scenarios: perfect vs. imperfect matching.

t_5 : Nash bargaining among matched banks; assumed to result in equal reserves(!).

$[t_6]$: Some (randomly selected) banks disappear (default).]

t_7 : Standing facilities (MLF with i_ℓ , DF with i_d) can be accessed by banks.

Three critical remarks on the assumptions

- 1) Is imperfect pairing really more realistic than perfect pairing?
 - (i) MP lasts for one month and reserve averaging allowed – gives banks time to look for trading partners.
 - (ii) Imperfect pairing may be realistic only on last day of MP.
 - (iii) Electronic trading platforms.
- 2) Is it realistic to assume that banks equate their reserves as the result of bargaining?
- 3) Model with default: authors (implicitly) assume zero cost of collateral
 - (i) It is assumed that interbank borrowing is uncollateralised (as recovery rate is assumed to be zero).
 - (ii) Central bank borrowing is always collateralised.
 - (iii) Borrowers are assumed to be indifferent between market borrowing and central bank borrowing if both is at the same rate!

Results

- 1) Willingness to pay in central bank auction
- 2) Trading volumes
- 3) Interbank market rates
- 4) Rate volatility

Positive remarks

- 1) Banks bargain in interbank market rather than act as rate taker.
- 2) As a consequence, rates do not (necessarily) fall down to i_d if aggregate liquidity surplus and do not (necessarily) rise to i_ℓ if aggregate liquidity shortage.
(Recommendation: compare your results with those from rate taker assumption!)
- 3) Model nevertheless tractable.