DEUTSCHE BUNDESBANK
EUROSYSTEM

Discussion of: Intraday Liquidity Management

11th Payment and Settlement System Simulation Seminar

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Intraday Liquidity Management and Systemic Risk in Kronos
Summary of Presentation by Søren Truels Nielsen

- Stress testing Danish Interbank Market with endogenous reaction function
- Scenarios
  - default of largest participant
  - liquidity dry-up of largest participant
  - precautionary demand (group of banks act cautiously)
- Static simulation: ceteris paribus
- dynamic simulation:
    - normal regime: pay if liquidity is available
    - cautious regime: if 20 % of received funds sent postpone payment
    - switching criteria: spent more than 30 % of intraday credit
- Results:
  - scenarios have dramatic effect in comparison with status quo
  - endogenous response alters the outcome less significantly
  - conclusion: current ample liquidity renders system robust

Intraday Liquidity Management and Systemic Risk in Kronos Discussion

- Relevance
  - Approach is of high methodological value
    - static approach: what if something happens and all react as if nothing had happened
    - dynamic: if there is an elephant in the room, it will change the behaviour
  - Assumptions seem warranted
    - fairly simple rule of thumb is to be expected in times of crisis
    - stress testing should make use of endogenous reaction functions
- own modelling of simulator and reaction function (well done!), however, no queuing possible (unlike in Kronos)
  - cautious regime was defined with “postponement” – this would require a queuing facility
- In spite of dramatic impact of scenarios on outcome hardly any impact of endogenous simulation – because of overliquidity in the system

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Questions and Suggestions

- Have you considered aggravating the stress scenario by reducing the liquidity (intraday credit) drastically?
- How serious is the impact of the simulator deviations from Kronos ?
  - Simulator does not solve gridlocks
  - Simulator does not allow for queuing
- Cautious regime assumes more payments are postponed
  - however: simulator can not postpone with a queue, it rather reintroduces unsettled payments after 30 minutes and finally cancels
  - to measure the impact of cautious regime,
    - queuing would be essential
    - timing indicators would be meaningful
- Does Kronos allow for bilateral or multilateal limits?
- Limit introduction into BOF-PSS would be easy way to model a reaction function
- Well done, keep going !