# Comments on Matti Hellqvist's: Implicit Intraday Limits in Large Value Payment Systems

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## Research questions

- Do participants in RTGS systems place implicit counterparty limits (ICL)?
  - Yes, anecdotal evidence, T2 has explicit limits

- What is the rational behind the ICL?
  - Internal queuing $\Rightarrow$ credit risk exposures
  - Liquidity management $\Rightarrow$ strategic delay

- Can we estimate/indirectly observe ICL?
  - Proposed using tail statistics of bilateral balance distributions

- How do we proof tail statistics are good ICL estimators? Proposed tests based on:
  - Counterparty risk measure effects (DD, IS)
  - "Confidence" or "reciprocity" effects (incoming payments TV)

## Results

- Daily estimates of ICL seem a very volatile process
- No difference in the "model" explanatory power for different ICL estimators
- Daily analysis: Only TV significant and with expected negative sign
- Monthly analysis: 50.5% ICL series fail to reject unit root test
- Some evidence of a positive correlation between IS and ICL estimates
- No correlation between estimates of ICL and overnight positions

## Comments: analytical framework

- Better context to support ICL as a common practice.
- Better describe the control process of intraday liquidity management and the rational for ICL
  - Multiparty commitments
  - Priorization, delay
  - Payment flow volatility
  - Reciprocity
  - Dynamic vs static limits (e.g based on incoming payments like the receipt-reactive settlement system)
- Counterparty risk vs liquidity risk?

## Comments: empirical approach

- ▶ Could it be that for some pairs the limits are binding but not for others?
- ▶ Is the stochastic process that generates bilateral balances with and without ICL observationally different?
- ▶ the evidence of unit roots in the estimated ICL might show either they are not good estimators or participants do not use ICL
- ▶ The interest rate spread does not change across pairs ⇒ does not give indication of B's market situation
- ▶ ICL independent from other positions may be a strong assumption
- ▶ Are sent payments affected by ICL? e.g. delay? ⇒ two-way causality
- ▶ Further work to show empirical evidence that the tail statistics are good estimators of ICL

## Suggestions

- ▶ Focus the analysis on liquidity risk rather than counterparty risk
- ▶ Explore symmetries in ICL. In the Canadian LVTS they tend to be!
- ▶ ICL as an AR process?
- ▶ Try volatility as an explanatory variable
- ▶ Try measures of tightness in bilateral positions with participants other than the pair
- ▶ Would the move to T2 change the ICL? Could be a good exogenous shock for testing
- ▶ Since the pairs are based on 24 against 5 participants, errors may be correlated across equations. A SUR estimation may be worth trying.
- ▶ Alternatively, panel data models.