



The study

- Given that the number of transactions are expected to grow and the need in some cases of longer periods of time (depending of the case of study), simulation could become no longer feasible.
- In order to find a solution to this problem, the authors explore two dimensional space structured by different levels of aggregation of transaction (9 + 1) and different level of available liquidity (9+1).
- They argue that the aggregation of transaction, given certain ceiling of the size of the payment order, will not alter significantly the outcome of the study and will increase the performance of the simulation.
- The authors use four indicators per participant to compare the outcome of the original set of transactions (the benchmark) with the outcome of the reduced number of transactions - percentage settled, lower bound of liquidity, balance drop and average queue value.

General remarks

- Being able to aggregate transaction in a sensitive way will make simulation more efficient and will allow to study business days with higher number of transactions (above 100,000);
- The question - to what extend transaction below certain size could be aggregated could turn to be relevant not only for simulation studies, but even to find a more efficient way of settlement of high volume of payment transactions in real time;
- The methodology used is well explained;
- The presentation (and the paper) has a high level of infographic contents and it is clearly presented.

Questions

- In terms of liquidity pressure the aggregated levels of transactions could turn up to be a reasonable approach, nevertheless if behavior aspect such as the frequency of certain business relationships or the evolving dynamic of the network structure are the object of the study, the aggregation of transactions could alter in a more important way the outcome;
- Regarding the efficient performance of the simulation, could the format of the data be also relevant in order to reduce computer power?

