Banc Ceannais na hÉireann
Central Bank of Ireland
Eurosystem

Discussant Slides – Testing Framework For Early Warning Indicators (Joint project by Ģirts Maslinarskis (Latvijas Banka), Jussi Leinonen (ECB) & Matti Hellqvist (ECB)) - 12th Payment and Settlement System Simulation Seminar and Workshop Helsinki – 29-08-2014

Paul Lyons, Central Bank of Ireland, 29.08.2014

Banc Ceannais na hÉireann
Central Bank of Ireland
Eurosystem

Recap/Summary:

❑ The aim of the joint project is to develop a testing framework for Early Warning Indicators (EWIs) using Target 2 data to identify

    ❑ Payment distress (such as liquidity problems; missed incoming or out going payments etc.)

❑ A signalling approach (similar to Alessi & Detken, 2011) is adopted.

❑ Given the importance of payments system data for the smooth functioning of financial markets, the project is asking an important question

❑ *What information content can we obtain from the rich source of data (Target 2) to early identify payment distress events?*

➢ **What are the next steps?**
➢ **Application – systemic events or individual cases?**
➢ **Control dataset?**

2

The Central Bank Who Cries Wolf:

❑ A major challenge is identifying signals versus noise. Central Banks do not want to repeatedly be accused of 'crying wolf'.

❑ The signalling analysis approach chosen requires a trade-off between Type 1 errors (missing a distress event) and a type II error (falsely predicting a distress)

❑ Slide 14 notes that "it would be justified for policy makers to have a preference for avoiding missed cases (high theta)"

❑ This could have consequences for the credibility of policy makers.

❑ On the other hand if the policy maker is biased towards minimizing Type II errors at the expense of tolerating Type I errors i.e. failing to issue warnings for the eventual stress event – then it could be accused of not doing its job.

➢ **Thoughts on the trade-off between Type I and Type II errors?**

3

Macroprudential policy linkages:

❑ Global Financial crisis has led to greater focus on EWIs and testing frameworks for identifying crisis events. Recent contributions to the final MaRs conference on this topic are noteworthy -**[Comparing different early warning systems: Results from a horse race competition among members of the MaRs – Frankfurt 23 June 2014]**

❑ The cost benefit analysis of macroprudential measures is not obvious at present due to the infancy of much of the measures. EWIs based on reliable data sources are therefore important for policy makers in deciding on appropriate responses. Target 2 is a natural choice.

❑ One powerful outcome of EWI 'Tools' such as that proposed is that it gets policy makers thinking about what could go wrong.

❑ The BIS (working paper no. 421) specify that EWIs, in addition to having sound statistical properties should also satisfy criteria relating to "timing, stability and interpretability"

➢ **For the EWIs considered, how do/will they fair under these criteria?**

4

Modelling Considerations:

- ❑ Identifying key shareholder reporting dates (interim or annual reporting dates) for special attention.

- ❑ The frequency of the signals produced. Often policy makers prefer to react to trends rather than reacting to individual signals immediately.

- ❑ Scope of data use (all or filtered).

- ❑ Using market data sources, external credit ratings to identify distress events.

- ❑ Scope for backtesting of results?

- ❑ Combining Target 2 EWIs with other EWIs.

- ❑ Sensitivity analysis for choice of theta

- ❑ Other?

- ➢ **We look forward to the 'Tool' being put into practice.**

5