

# **Measuring free-riding in LVPS**

## **The case of TARGET2 ?**

Paper: Martin Diehl

Discussion: Marco Galbiati

# Motivation and General Concepts

Liquidity *sort of* a common good

→ free-riding

# Motivation and General Concepts

Liquidity *sort of* a common good

→ free-riding

Very important dimension in the THEORY of LVPS →  
must be looked for (found?) in the DATA

# Motivation and General Concepts

Liquidity *sort of* a common good

→ free-riding

Very important dimension in the THEORY of LVPS →  
must be looked for (found?) in the DATA

( 'Voluntary' free-riding? )

# Axiomatic approach

Very nice!

# Axiomatic approach

Very nice!

... but the implementation has some 'rough edges'

# Axiomatic approach

Very nice!

... but the implementation has some 'rough edges'

Transfer principle: "... any *significant* shift of (...) a (...) *sizable* payment... should lead to a change in the indicator"

# Axiomatic approach

Very nice!

... but the implementation has some 'rough edges'

Transfer principle: "... any *significant* shift of (...) a (...) *sizable* payment... should lead to a change in the indicator"

True measurement: "... free of any *technically implied jumps* in value"



# Axiomatic approach

Very nice!

... but the implementation has some 'rough edges'

Transfer principle: "... any *significant* shift of (...) a (...) *sizable* payment... should lead to a change in the indicator"

True measurement: "... free of any *technically implied jumps* in value"

Invariance with respect to "... the *number of participants in the LVPS* and the number of participants included in the measurement"

# Proposed measures

1) Time-based measure:

$$\delta_i = (\text{time to 50\% out}) - (\text{time to 50\% in})$$

- Simple
- Why 50?
- Transfer principle?
- Number of banks?

# Proposed measures

2) Early payment indicator:

$\pi_i$  = weighted average of sending time

- Beyond simple average (or w. by value)
- Liquidity more valuable at some  $ts$  than at others
- Why exponential weighting?
- Only payments made by single bank?
- Relationship with previous measure?

# Summary

Sometimes unclear formulation

Some questionable axioms (Participant Invariance)

Measures have drawbacks

**Great topic**

**Great approach**

**Good insights**