



EUROPEAN CENTRAL BANK

EUROSYSTEM

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*Disclaimer: Any views expressed are only those of the author and do not necessarily represent the views of the ECB or the Eurosystem.

ECB Money Market Workshop Discussion

*“Strains on money market
makers and money market
tensions”*

by Fecht, Reitz and Weber

Frankfurt am Main, 20 October 2014

Liquidity funding risk impacts money market pricing

- Data
 - money market order book
 - one German market maker for euro area money market (EURIBOR and EUREPO panel member)
 - between 2007 and 2008
- Econometric modelling of pricing equation
- Results: liquidity funding risk leads to
 1. liquidity hoarding
 2. increasing term premium
 3. drying up of market liquidity (larger bid-ask spread)

Valuable contribution to understanding money markets

- Contribution to theoretical model evidence
 - Funding constraints impact market liquidity with second round effects
 - Gromb & Vayanos (2002 JFE) and Brunnermeier & Pedersen (2009 RFS)
- Policy implications
 - Regulation contributing to market stabilisation, e.g. liquidity coverage ratio
 - Importance of central bank liquidity provision in case of liquidity tightening in money markets

Overview

1 Summary

2 Comments on data

3 Comments on methodology

4 Further suggestions

Overview

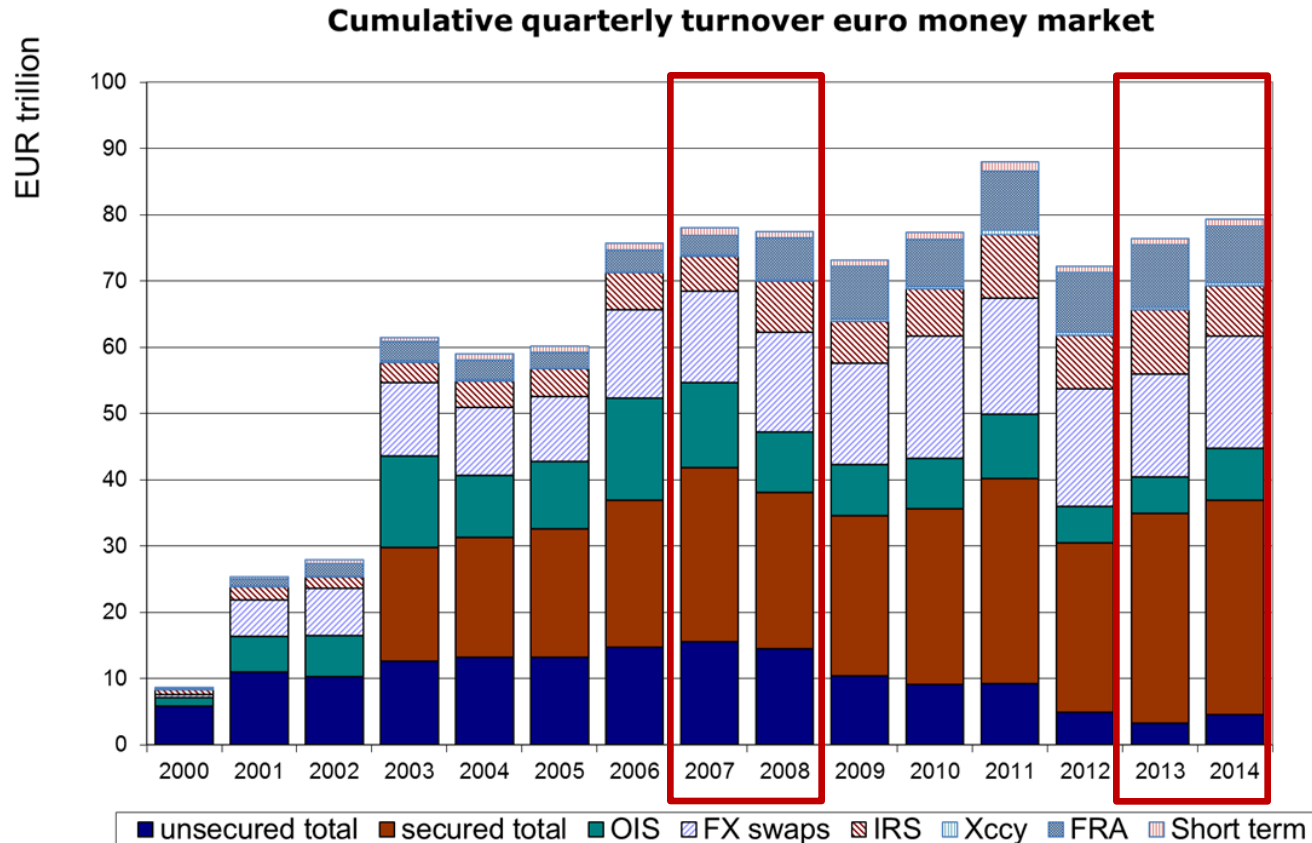
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Market scope: Today secured segment more important



Source: ECB Money Market Survey 2014.

Market microstructure: only good risks in unsecured segment

- Liquidity risk causes higher rating standards
- Closing of credit lines for risky counterparties

→ Selection bias

- Possible solutions
 - Use stable sample
 - Selection model approach
 - Counterparty fixed-effect

Period	Borrower rating for money market loans
Tranquil period Jan 2007 – Aug 2007	A
Subprime crisis Aug 2007 – Sep 2008	AA
Lehman collapse Sep 2009 – Dec 2008	AAA

Source: Fecht, Reitz, Weber (2014)

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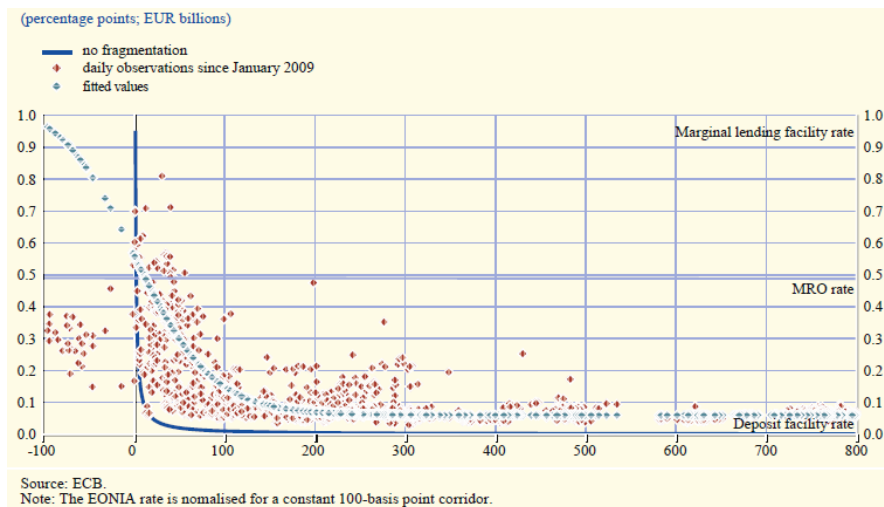
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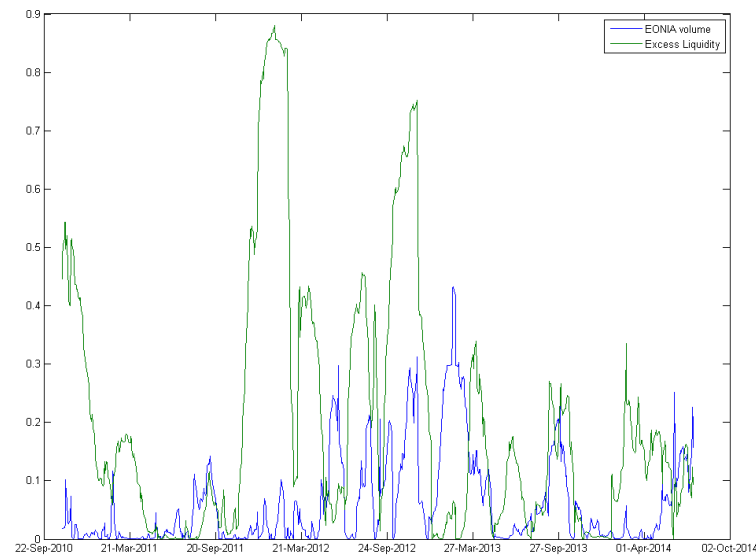
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Unsecured rates, market liquidity and excess liquidity



Source: ECB Monthly Bulletin Jan 2014, p. 79



Note: *R*-squared statistics, 60-day rolling regression.

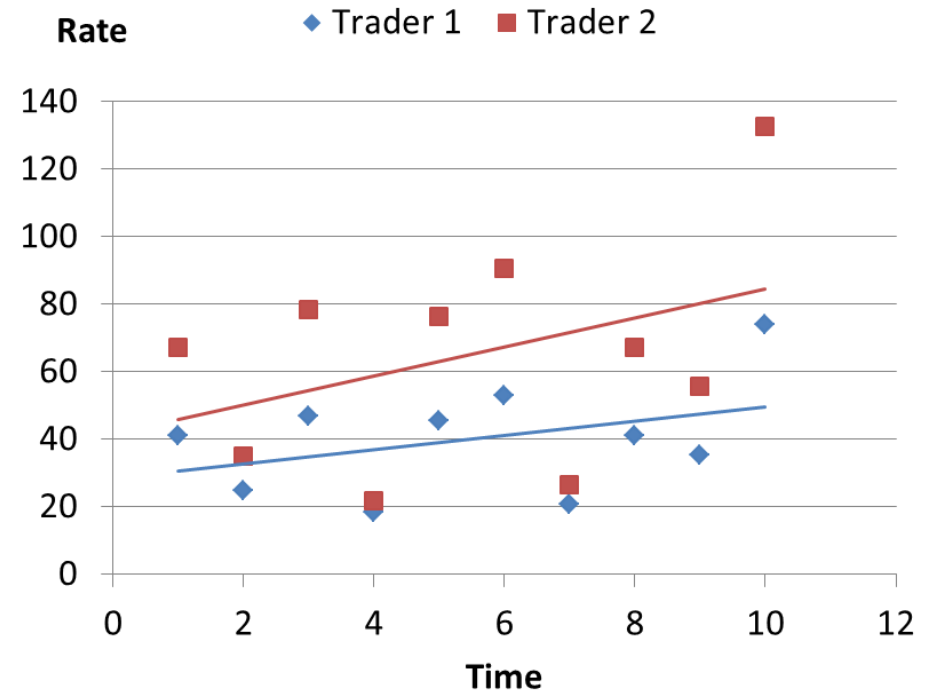
Source: EMMI, ECB, ECB Staff.

Using EUREPO as a benchmark rate

- “To capture general changes in the money market rates – for instance due to monetary policy”
- Policy rates
 - Deposit facility rate
 - Main refinancing operation rate
- Market maker is panel member of EUREPO and EURIBOR
 - Multicollinearity issue remains for EUREPO as well as EURIBOR
 - Further issues with EUREPO
- Analyze market wide credit spread
 - Using GC pooling rates or other repo rates
 - Alternative EONIA-OIS
- Estimating the money market curve
 - Paper uses next lower available maturity and T/N for overnight loans
 - Creates upward bias in spread $r_{j,t} - r_{\text{EUREPO},t-1}$ for liquidity funding risk

Identification of fixed-effects for trade level data

- Panel estimation approach
 - $y_{jt} = a_j + x_{jt} b + u_{jt}$
 - Fixed-effects estimator based on
 - trade (t) / counterparty (j)
 - trade (t) / trader (j)
 - Trades observed on minute level
 - Data cleaning: trade in same minute is changed to two logical seconds
- Challenge for identification strategy:
- $t\{j1\} \neq t\{j2\}$ for all j
- What is the right level of aggregation: minutes, hours?



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What is the difference between liquidity funding sources

- Price setting
 - German Market maker is price setter
 - Profit maximization
- Cost of liquidity funding and liquidity funding risk
 - Internal
 - Market liquidity funding (control variable NMMF)
 - Funding via the central bank
- Interaction between liquidity funding sources
 - Is liquidity funding from the central bank a perfect substitute to market or internal liquidity funding?
 - Institutional set up between trading and treasury?