



Discussion of

# **Capital Requirements, Risk Shifting and the Mortgage Market**

by

A. Uluc (BoE) and T. Wieladek (BoE)

**Lucia Esposito**

Bank of Finland and CEPR joint conference on Housing Markets,  
Monetary Policy and Macroprudential Policy

Helsinki 22-23 October 2015



# Disclaimer

The views expressed here are personal and do not necessarily represent those of the Bank of Italy

# Key questions and results



- Q1: Do changes in capital requirements affect mortgage supply?
  - Q2: If so, how do banks react (risk-shifting)?
  - Q3: Is there substitution by locally competing lenders and non-bank finance companies?
- 
- R1: A 100bp rise in capital requirement leads to 5.4% decline in loan size
  - R2: There is risk-shifting
    - ✓No contraction for first-time buyers and borrowers with impaired credit history
    - ✓Largest effect for borrowers with verified income
  - R3: There is substitution from other banks (not “shadow banks”)
    - ✓Banks’ adjustment is mainly via the extensive margin (i.e., rejections)

# Data



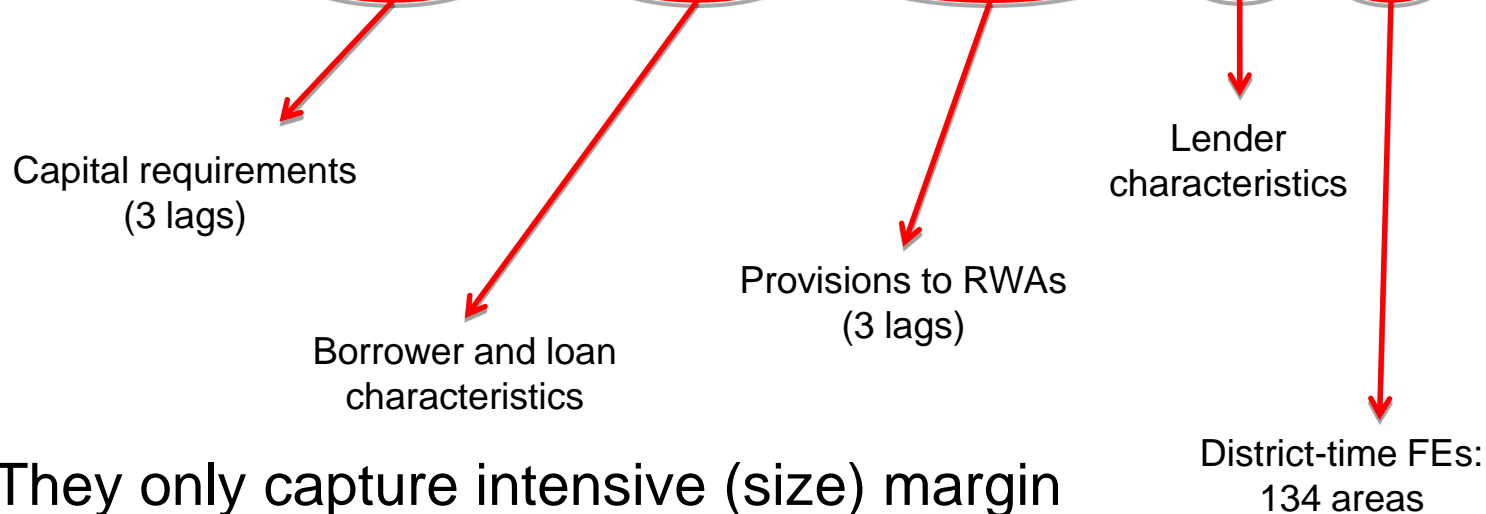
- ❑ Unique dataset (2005q2-2007q2) with:
  - Bank-specific changes in capital requirements
  - Bank-, borrower- and loan-level data
    - ✓ amount of new mortgage
    - ✓ borrower's age and income; verified income; impaired credit history; employment status;
    - ✓ maturity and type of the loan;
  - 58 banks, 59 bldng. soc., some non-bank finance co.
- ❑ Basel I framework
  - All mortgages at 50% risk-weight

# Methodology



- Baseline regression

$$Loan_{i,j,t} = \alpha_j + \sum_{k=0}^3 \delta_k KB_{j,t-k} + \varphi BLC_{i,j,t} + \sum_{k=0}^3 \theta_k Prov_{j,t-k} + \gamma LC_{j,t} + PC_{ht} + e_{i,j,t} \quad (1)$$



- They only capture intensive (size) margin

- ✓ No data on loan rejections

# Methodology



- Risk-shifting studied by interacting KR with borrower-dummies
  - ✓ No loan reduction for 1st time buyer, bad credit history or self-employed
  - ✓ Large effect on borrowers with validated income
  
- Credit substitution studied by seeing if loan demand (and thus granted credit) rise for non-affected lenders in response to an increase in KR for competing lenders

# Comments



## → **Micro and macro prudential regulation**

- ✓ Time-varying capital requirements
- ✓ Disclosure on the “policy rule”
- ✓ Example: CCCB

## → **Risk shifting**

- ✓ Increase capital through retained earnings implies that banks are very myopic. In the long run, they would suffer larger provisions, so profitability would eventually decrease
- ✓ Implication for Basel III: stronger impact on loan volumes, *ceteris paribus*
- ✓ “Unintended” risk shifting (in general, which are the effects on terms and conditions applied to loans? BLS evidence)

# Comments



## → Credit substitution

- ✓ Possible correlation between banks in trouble (i.e. increase in KR) and competing banks «in good shape» if the latter are expanding their market share. The correlation between the increase in reference group KR and lending by non-affected banks might just reflect the gain of market share by the latter group, maybe due to more aggressive lending policies.

## → Controls for demand

- ✓ Is housing market homogenous in each area? For example, in London (if it is considered one district) there may be huge differences in prices and demand.
- ✓ How about the role of income? Is it possible that affected banks are more exposed to borrowers who experienced larger reductions in income?



# Comments



## → **Are changes in KR as good as randomly assigned?**

- ✓ Crucial for identifying causal effects. What are the reasons behind the increase in KR?
- ✓ Are they capturing/controlling market-based increase in capital requirements?

## → **Regulatory changes are not discussed**

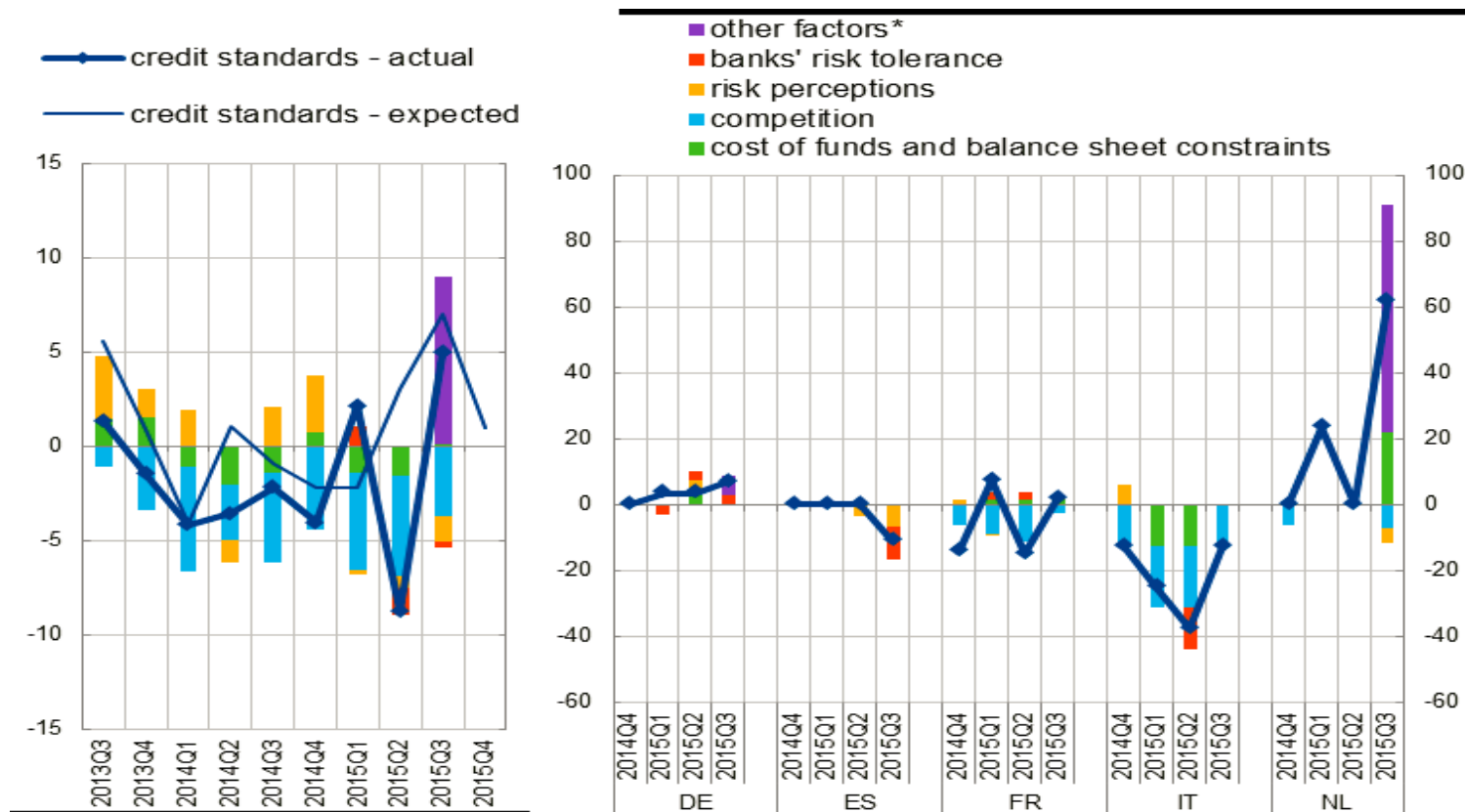
- ✓ Why they were implemented? Criteria related to operational, management, business risks

## → **“First assumption” for capital requirements to affect the aggregate loan supply**

- ✓ Bank equity needs to be privately more expensive than bank debt
- ✓ How expensive was raising capital from 2005 to 2007?

# Bank Lending Survey

(Changes in credit standards applied to the approval of loans to households for house purchase and contributing factors)



Among the largest euro area countries, the effect from other factors reported b



**Thanks**