# Can Unlimited Liquidity Provision Help to Avoid a Credit Crunch? Evidence from the Eurosystem's LTROs

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The views expressed in this discussions are my own and not those of the ECB or Eurosystem

#### Summary of the paper – Objectives

- Did the two LTROs have an effect on the supply of credit to French firms?
- Address two identification issues:
  - Disentangle credit supply and credit demand  $\rightarrow firm\ fixed\ effects$
  - Endogenous in-take of LTRO funding by banks  $\rightarrow bank \ balance \ sheets$
- Understand the transmission channels:
  - To which type of firms?
  - Through which type of banks?
- Effort to quantify aggregate effects

#### **Summary of the paper – Results**

- LTROs had a positive impact on the supply of credit:
  - To large firms, and to firms with many banks
  - Through capital—rich banks
- The first LTRO (December 2011) had a bigger impact than the second LTRO (March 2012)
- Overall, the net effect on firms was positive:
  - Firms did not substitute credit across banks
  - Back-of-the-envelop calculations suggest that every EUR-billion of funding resulted in a EUR107 million increase in loans to NFCs

## Comment 1: Better understand the transmission channels of the LTROs

- Since October 2008, the Eurosystem has been implementing a FRFA policy: banks have their bids fully satisfied and can roll over "unlimited" funding
- Not so obvious why LTROs would have had an effect *above and beyond the FRFA MROs*: What is the specificity of LTROs?
- LTROs improve the "quality" of funding over FRFA MROs:
  - Safer funding: less uncertainty as to rolling over Eurosystem funding
  - Cheaper funding: interests paid out at the end and not compounded
  - LTROs helps bank comply with new liquidity regulation (?)

#### **Comment 2: Specification**

• Main specification in the paper focuses on the *intensive* margin only (i.e. on the degree of loan roll–over):

$$\log(L_{f,g,2012}) - \log(L_{f,g,2011}) = \alpha_f + \beta \frac{LTRO_g}{Assets_{g,2011}} + \gamma BS_{g,2011} + \varepsilon_{f,g}$$

• Why not look at both intensive and extensive margins?

$$\frac{L_{f,g,2012} - L_{f,g,2011}}{L_{g,2011}} = \alpha_f + \beta \frac{LTRO_g}{Assets_{g,2011}} + \gamma BS_{g,2011} + \varepsilon_{f,g}$$

$$\frac{L_{f,g,2012} - L_{f,g,2011}}{Assets_{g,2011}} = \alpha_f + \beta \frac{LTRO_g}{Assets_{g,2011}} + \gamma BS_{g,2011} + \varepsilon_{f,g}$$

#### **Comment 2: Specification**

• Why not look at  $LTRO_g + MRO_g$ ?

$$\frac{L_{f,g,2012} - L_{f,g,2011}}{Assets_{g,2011}} = \alpha_f + \beta \frac{LTRO_g + MRO_{g,after}}{Assets_{g,2011}} + \gamma BS_{g,2011} + \varepsilon_{f,g}$$

Funding quality versus funding quantity

$$\frac{L_{f,g,2012} - L_{f,g,2011}}{Assets_{g,2011}} = \alpha_f + \beta_M \underbrace{\frac{MRO_{g,before} - MRO_{g,after}}{Assets_{g,2011}}}_{\text{MRO replaced by LTRO (quality effect)}} +$$

$$\beta_L \frac{LTRO_g + MRO_{g,after}}{Assets_{g,2011}} + \gamma BS_{g,2011} + \varepsilon_{f,g}$$

#### Comment 3: Some results are hard to explain

- The first LTRO had a positive effect but not the second one. Is it really a "stigma" effect?
- LTRO-banks gave more credit to large firms that have short relationships with many banks. Could it reflect an increase in syndicated loans?
- LTRO-banks gave more credit but reduced credit lines
  - It looks like the banks with the most credit line exposures in Sept 2011 went to the LTRO in anticipation of those credit lines being drawn

### Comment 4: Endogeneity of LTRO in-takes

	Total Credit		
	(1)	(2)	(3)
Bank LTRO	0.18	0.01	0.62***
	(0.36)	(0.47)	(0.21)
Bank Size			0.10
			(0.78)
Bank Liquid Assets			-0.13***
			(0.04)
Bank Capital			$0.17^{***}$
			(0.06)
Bank Interbank Liabilities			0.22***
			(0.05)
Bank ECB Dependence			-0.20**
			(0.09)
Bank Bond Rollover			$-0.09^{'}$
			(0.14)
ECB MRO User			7.29**
			(3.32)
Foreign Bank			-2.53
			(2.45)
Public Bank			-10.47***
			(2.53)
Firm fixed effects	No	Yes	Yes

#### Comment 4: Endogeneity of LTRO in-takes

- Instrument  $LTRO_g$
- Rule out reverse causality by checking that LTRO in–takes are independent of banks' ex ante loan portfolio characteristics, e.g.:
  - Banks' ex ante exposures to credit lines
  - Banks'  $ex\ ante$  loan portfolio quality (e.g. borrower size, profitability, rating)

#### **Comment 5: Aggregate effects**

- The estimations and back—of—the—envelop calculations are based on a particular sub—sample of (relatively large?) firms: those with bank loans in both 2011 and 2012
  - Small firms may be missing and the effects are hardly significant for small firms
  - Large firms are also the most likely to have direct access to markets and there may be a substitution between bank financing and bonds
    - $\Rightarrow$  The effects may be over–estimated

#### **Conclusion**

- Difficult task
- Some more robustness checks needed
- Very nice paper