EUROPEAN CENTRAL BANK

EUROSYSTEM

Miguel Boucinha

Discussion of

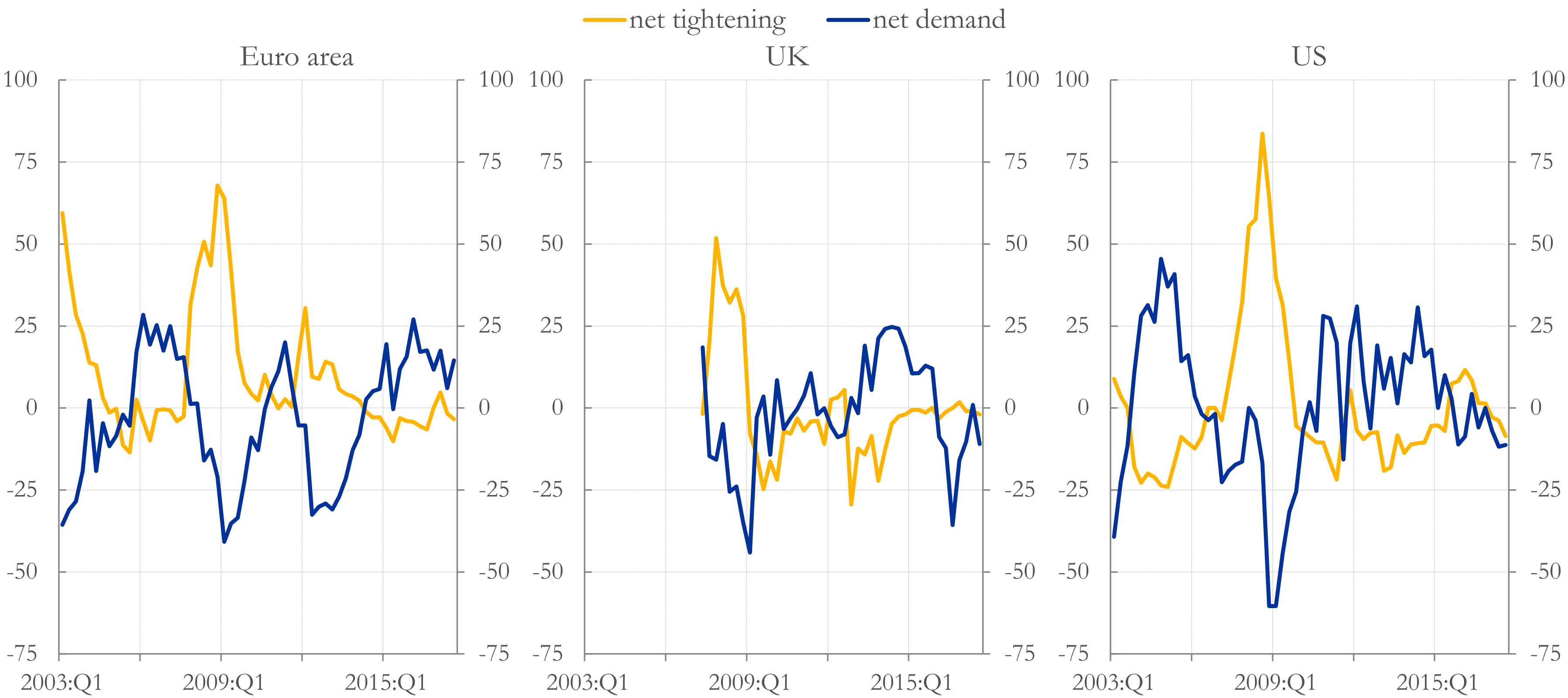
Credit Demand and Supply: A Two-way Feedback Relation

Ugo Albertazzi and Lucia Esposito

Fifth Research Workshop of the MPC Task Force on Banking Analysis for Monetary Policy
Brussels, 1 February 2018

What is the paper about?

Credit demand and supply tend to co-move: why?



Source: Altavilla, Boucinha, Holton and Ongena (2017), Credit Supply and Demand in Unconventional Times, mimeo

Literature and contribution

- **Strategic complementarities among firms:**
  - Cooper and John (1988), Chamley (1999)
    - Return on investment by a firm is higher if other firms also invest

- **Strategic complementarities among banks:**
  - Bebchuk and Goldstein (2011)
    - Return on lending of a bank is higher if other banks also lend

- **Contribution to the literature:**
  - Role of intra ***and inter***-group strategic complementarities
    - Firm payoff is higher if other firms invest ***and*** if banks lend
    - Bank payoff is higher if other banks lend ***and*** if firms invest

- **Theoretical model and empirical evidence**

Theory: Intuition and ingredients

Coordination among firms:

- Other firms’ employees are my consumers
- Other firms are my consumers
- Other firms are my suppliers
- Also network effects?

Bank-based economy:

- Firms need bank lending to be able to invest
- And if firms don’t invest banks do not get paid

Incomplete information

- Uniqueness of equilibria (global games)

Moral Hazzard

- Excess demand and supply interacting with equilibrium margins and incentive compatibility

Theory: results

1. Can the strong and persistent drop in credit demand for investment purposes be attributed to the credit supply restrictions per se?
    - Theory: yes

2. is it plausible that the causal relationship also works in the opposite direction, meaning a fall in aggregate demand reduces credit supply, thus establishing a two-way feedback loop?
    - Theory: yes

3. what are the implications of this feedback loop for countries that are financially integrated?
    - Theory: Large differences in productivity tend to lead to extreme, inefficient outcomes

4. is this potential vicious circle exacerbated if the firms demanding credit are already heavily indebted?
    - Theory: debt increases the size of the inefficiency in a scarce demand regime but does not affect the scarce supply regime inefficiency

Empirical results:

Research questions (theory):

1. Can the strong and persistent drop in credit demand for investment purposes be attributed to the credit supply restrictions per se?

2. is it plausible that the causal relationship also works in the opposite direction, meaning a fall in aggregate demand reduces credit supply, thus establishing a two-way feedback loop?

Testable implications (empirics):

1a. Firm *i*'s demand should decrease due to expectations about a decrease in other firms' investment ✓

1b. Firm *i*'s demand should decrease due to expectations of tight credit standards ?

2a. Bank *i*'s supply should decrease due to expectations about a decrease in other banks' supply ✓

2b. Bank *i*'s supply should decrease due to expectations about a decrease in credit demand ?

iBLS data for an unbalanced sample of 11 Italian banks

Comments

- **Interesting, well written and comprehensive paper**
  - Theoretical model and empirical application
  - Conclusions?
- **Introducing dynamics:** could results change due to "precautionary demand" (i.e., firms anticipating demand if they believe that supply will be unavailable in the future)?
- **Introducing competition:** could this lead to strategic substitution?
- **Extension of empirical exercise** to EA data?
  - Larger sample (115 instead of 11 banks)
  - Cross-country variation
  - Answer to research questions 3 & 4?
    - what are the implications of this feedback loop for countries that are financially integrated?
    - is this potential vicious circle exacerbated if the firms demanding credit are already heavily indebted?
- Is **past** loan supply/demand a **good measure of expectations** about future?
  - Expectations (which are not observable by others) or actual outcomes as cross-check?
- **Identification:** Should complementarity be expected also for households?
  - If not, would it be useful to run regressions for HH and check that there is no relationship?