EUROPEAN CENTRAL BANK

EUROSYSTEM

Identifying Heterogeneous Supply and Demand Shocks in European Credit Markets

Olivier De Jonghe and Daniel Lewis

18/09/2025

Discussion by Ugo Albertazzi, ECB, DGMF

the views expressed do not necessarily reflect those of the ECB

Overview of the paper

- Proposes a new method [D&L] to **disentangle demand and supply factors in the evolution of bank lending…**
- **…**improving in particular on **Khwaja and Mian (2008)** [K&M] by relaxing strong K&M identifying assumption: D= firm specific (i.e. uniform across lenders) & S= bank specific (relationship lending?)
- Derives estimator analytically from assumptions, studies asymptotic properties, extends to presence of covariates and time-variation
- Simulates data fixing parameters and tests performance of estimator (consistency and efficiency), for different sizes of the sample
- Applies methodology to actual (Anacredit) data and document D & S patterns, across time, countries…
- Explores differences in findings between K&M and D&L method (for average firm-effects)
- Explores determinants of cross-bank heterogeneity of individual firm-loan demand shocks, looking at: Laon contract characteristics (duration, collateralisation..), monetary policy, macroprudential policy, intensity of lending relationships, bank specialisation
- …
- Relevant, ingenious, massive work! A **really interesting paper** for academics and policy makers

Description of the D&L approach

- Considers jointly a **pair of observed outcome, price and quantity** (p & q), where innovations in both p & q are linear combinations of both D & S shocks
- Identifying assumptions on “cross correlations”:
  - Loan **demand shocks form firm f to bank b** are **uncorrelated** with loan **supply shocks from banks b’ (all other banks) to firm f**
  - Loan **supply shocks form bank b to firm f** are **uncorrelated** with loan **demand shocks from firms f’ (all other firms) to bank b**

  Crucially, unlike in K&M, demand shocks from firm f do not need to be perfectly correlated across banks and move 1:1
- Output:
  - 2x2 matrix of **coefficients of elasticity to D & S shocks, for both p & q**
  - **D & S shocks**
  - **Price-elasticities** of both D & S schedules

Suggestion 1: develop the economics, the narrative underpinning the identification

- Identification assumptions: ultimately their economic rationale is the only metric one can rely on for assessing their reliability. How reasonable are these identifying assumptions?

- **Counter-examples (?)**
  - Sectoral shocks affecting firm liquidity conditions and (all) banks exposed
    - firms may increase demand to all banks
    - banks may cut lending to all firms in the sector (e.g. due to credit losses)
  - Shock to a firm affecting its liquidity position and its risk
    - all banks tighten…
    - …while the firm's loan demand increases (across the board or not)

Suggestions 2: clarify whether the approach can capture patterns with substitution of lenders (real effects)

- Loan supply shocks have no real consequences if borrowers can substitute across lenders
- Important to run the assessment also at the firm-level (rather than just at the loan-level)
- K&M cannot be (directly) used to assess firm-level effects of loan S shocks, as demand cannot be controlled in firm-level panels (it requires loan level regressions and multiple lending relationships)

- **Is D&L ruling out by assumption the presence of substitution patterns?**

  Substitution = b cutting on f and f increasing loan D to other banks (b')

  Identifying assumptions on cross correlation violated

Suggestions 3: elaborate on the role of risk shocks

Lending is affected by changes in

A. Firms' funding/liquidity needs ("pure demand shocks")
B. banks' balance sheet constraints ("pure supply shocks")
C. credit risk, leading banks to tighten lending standards/conditions

A strong limitation of K&M is that it conflates B&C in firm (firm*time) f.e.

In the D&L framework, risk shocks are conflated with (pure) supply shocks. Is this preferable?