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How would European firms fund themselves in the US?

Contact

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I analyze firms' choice between bonds and bank loans in the Eurozone and compare it to the United States. The higher aggregate prevalence of loan over bond funding in Europe is not only driven by the well-documented differences in financial market settings but also strongly shaped by different firm characteristics. I show that the extent to which firms use bonds instead of bank loans depends foremost on their size and collateral availability. I provide a counterfactual analysis of aggregate funding choice, which suggests that if all European firms had access to a financial market like the US market, their aggregate bond funding share would still be significantly smaller.

Paper in a Nutshell

European firms' debt funding is dominated by bank loans, whereas their counterparts in the US more frequently choose to issue bonds. The bond funding share is around 55 % in the US compared to only 15% in the Euroarea.

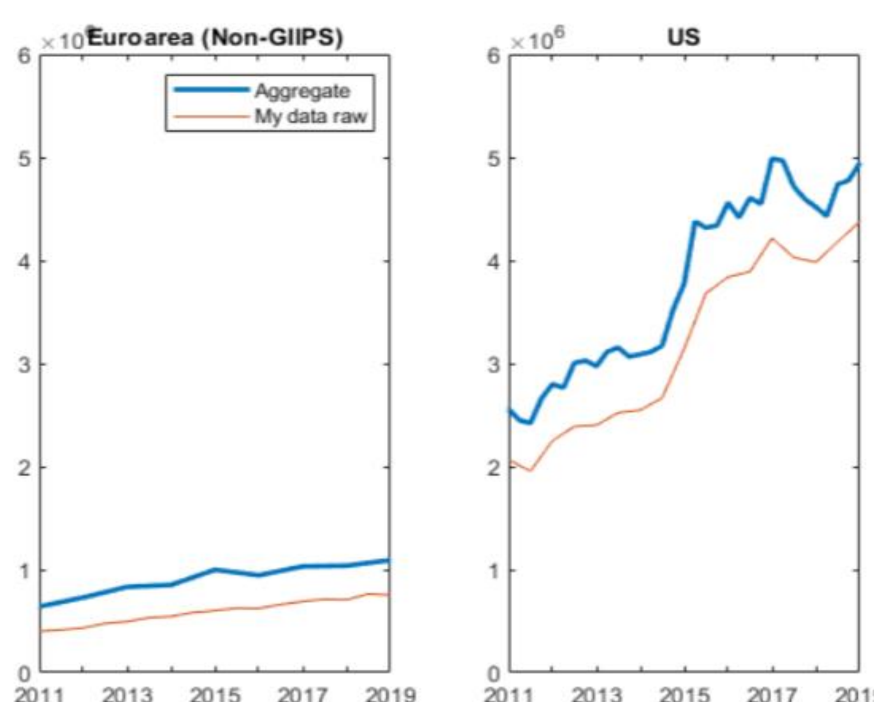
Research Question: If European firms were facing a financial market akin to the US market, would the aggregate debt funding choice be the same?

- I analyze the cross-sectional dimensions of firm debt choice in the Eurozone in comparison to the United States.
- For this, I compile an extensive firm-level dataset and show that firm size and fixed asset share are important predictors of a firm's debt choice.
- I estimate to what extent the aggregate debt choice is driven by similar firms using different funding sources in the two areas, in contrast to the part that is driven by fundamentally different firms making these choices.

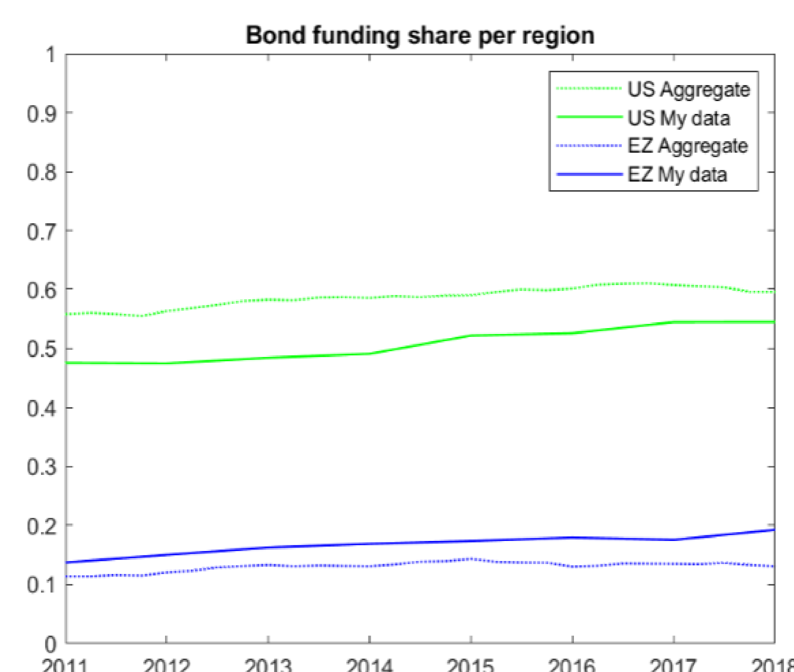
I **find** that the **difference** in the bond **funding share between the two regions mainly results from different firm fundamentals** (2/3 of the variation). Differences in the financial market structure explain the remaining 1/3 of the variation.

To my knowledge, this is **the first paper** presenting **counterfactual debt scenarios** for the Euroarea.

Data and Coverage



- The **literature** on bond vs. bank debt funding so far often focused on a limited set of **mostly public firms.**
- I **compile a novel dataset** on firm balance sheets and bond issues allowing me to include the debt choice of different firms, **including private firms.**



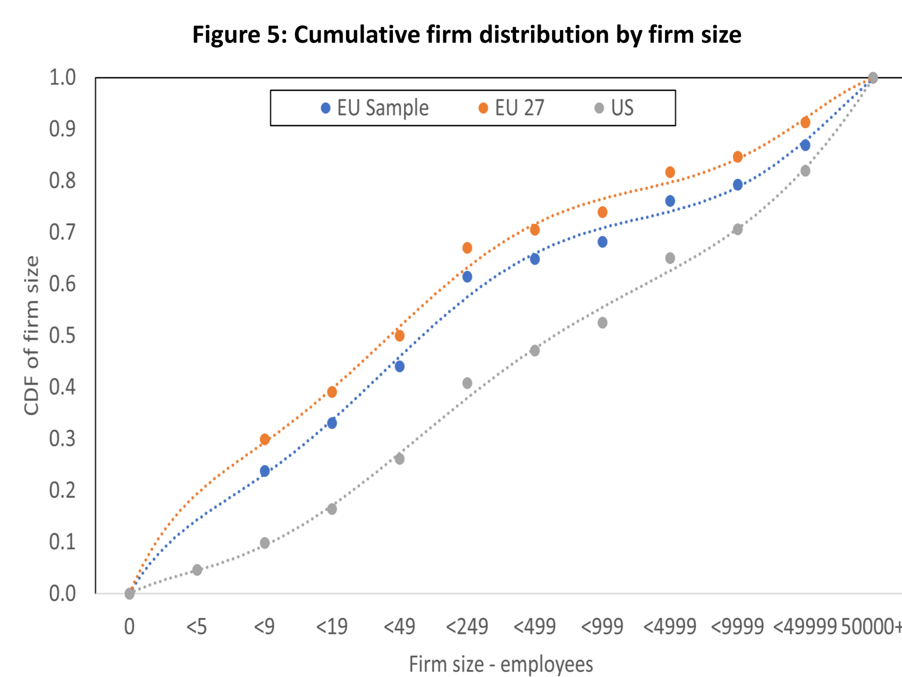
- The dataset is based on firm data from Orbis and represents approx. 60% of total employment and revenue of non-financial firms in the Euroarea.
- The data has a good coverage of bond volumes (Fig. 3) and closely resembles the aggregated bond-funding share (Fig. 4).

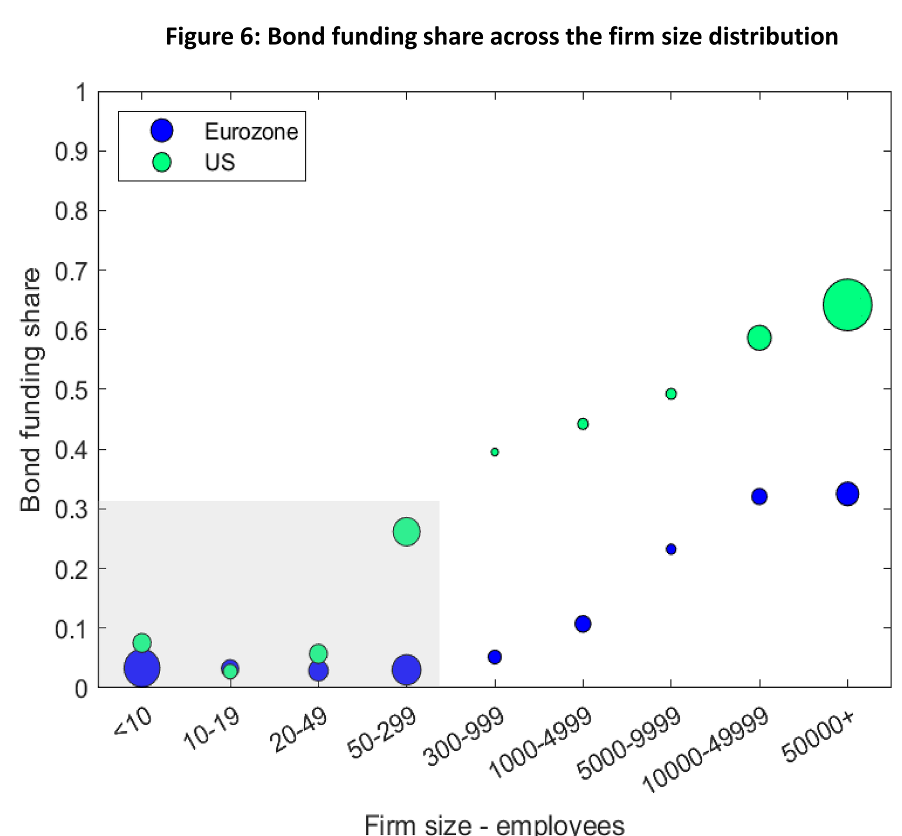
Model

I introduce a model of debt choice that incorporates **heterogeneity along two dimensions** found to explain firms' debt choices**: firm size** and **fixed asset share**. This model is an adapted version of the model presented in Becker & Josephson (2016).

- In the model, only firms beyond a certain **size threshold** issue bonds and this threshold increases in a firm's fixed asset share.
- I **estimate** two sets of **model parameters** to best represent the empirically observed patterns of funding choice: one for the Euroarea and one for the US.

The firms size distribution differs significantly between the US & Europe

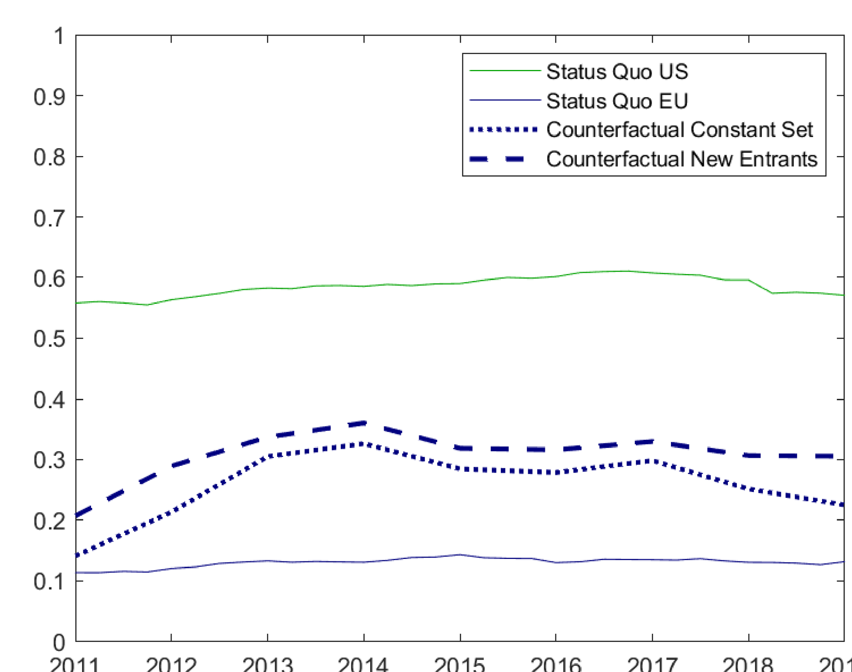




I explore how prevalent bond funding is in the **cross-section of heterogeneous firms**:

- **Firm size:** The propensity to issue bonds increases in firm size (Fig.6).
  - In **Europe** bond issuance is almost **exclusively seen among firms of at least 5'000 employees.**
  - For US firms, the entry-level size to issue is **smaller** (~100-250 employees).
- Second, I consider the **availability of collateral** in the form of fixed assets.
  - Firms with a large share of fixed assets tend to issue more bonds.
  - This is in line with a risk-reducing or adverse-selection-mitigating role of collateral

Counterfactual Scenarios



- Based on the estimated model, I present counterfactual scenarios of debt choice.
- If European firms would face a US-type financial market, the **bond funding share in the Euroarea** would be about **10 percentage points higher.** This is driven **by existing bond issuers issuing more bonds** (dotted blue line in Fig.10).
- The additional entry of smaller firms beginning to issue bonds increases the aggregate share only marginally (dashed blue line in Fig.10).
- The **difference** in the bond funding share between the two **mainly results from** different firm **fundamentals** (this explains about 2/3 of the variation).
- Differences in **the financial market structure explain the remaining 1/3** of the variation.

Policy Implications

- The prevalence of bank funding in Europe has been associated with **increased systemic risks** (e.g due to procyclicality).
- Results suggest that a **reliance on bank debt is unavoidable** in the light of the European firm distribution.
- Interventions should **balance** measures designed to **foster debt market** access for small firms as well as **measures designed to disincentivize banks' amplifying behavior.**

Becker, B. and Josephson, J. (2016). Insolvency Resolution and the Missing High-Yield Bond Markets. The Review of Financial Studies, 29(10):2814–2849.