The Pricing Implications of the Oligopolistic Securities Lending Market: A Beneficial Owner Perspective

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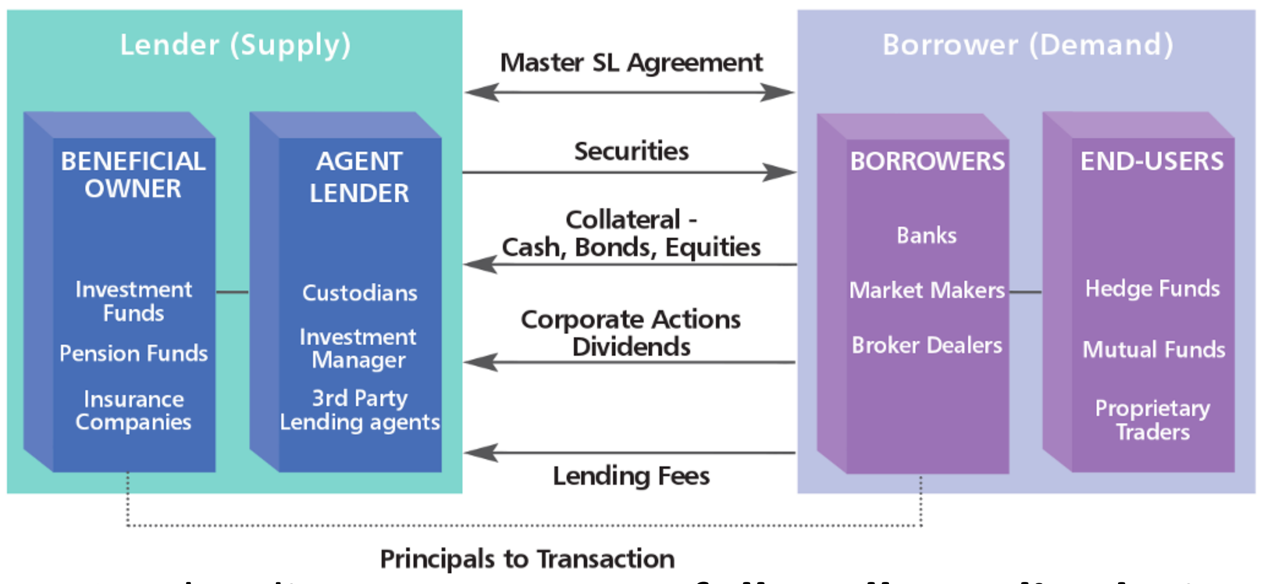
Research question

- Examine the **securities lending market dynamics** of the **European benchmark safe assets**, the German government bonds.
- Test **market inefficiencies** that may arise in the opaque and oligopolistic sec-lending market:
  - Is there evidence of **price (lending fee) inelasticity and discriminative pricing** behavior towards less connected lenders?
  - In the **long maturity segment**, where the lenders are most likely wealth preservation agents, test whether sec-lending can provide much needed additional income in the protracted interest environment.

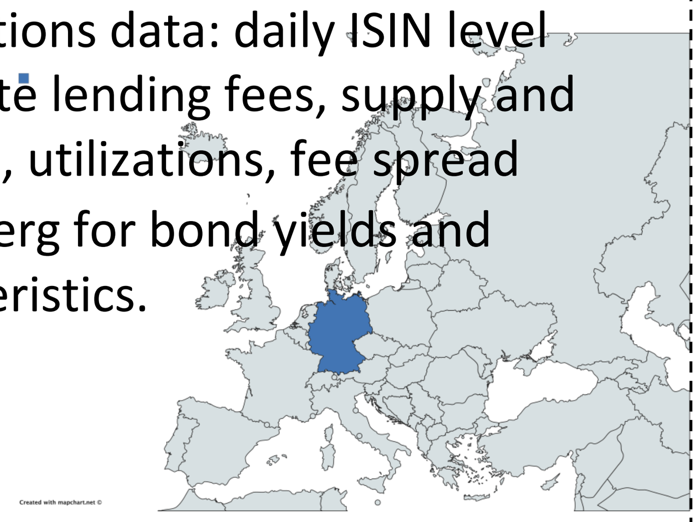
The Oligopolistic Sec-Lending Market



- Sec-lending contracts are **fully collateralized** tri-party contracts with temporary transfer of ownership.
- The market operates as an **OTC** market globally
  - Hence it is non-transparent with a dozen key prime broker-agents with market power and information advantage over lenders (beneficial owners).

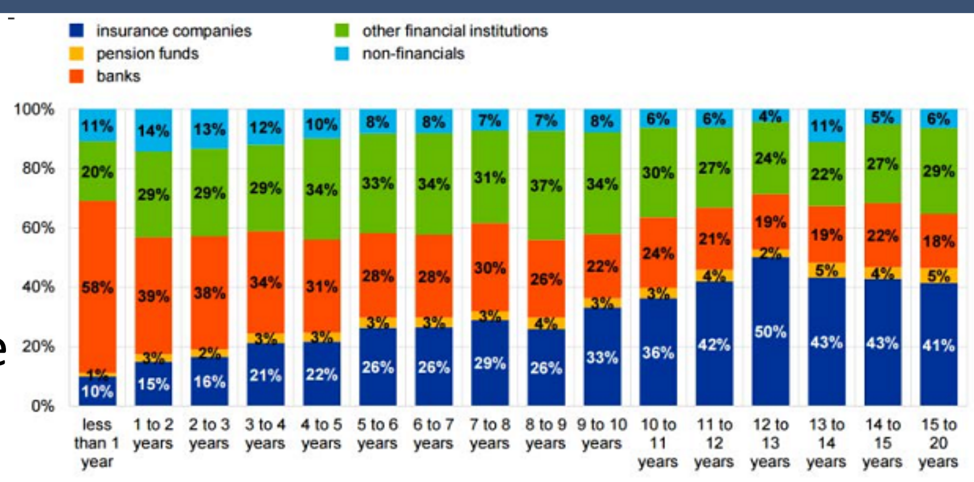
Data and sample

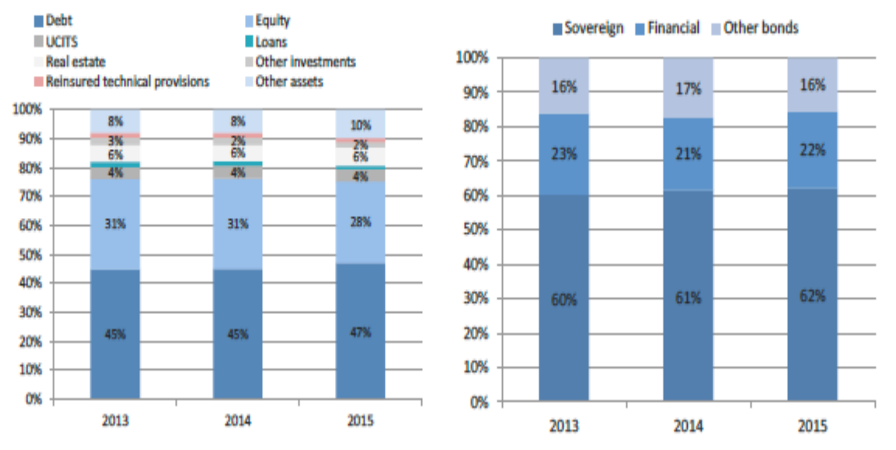
- **Germany** is the issuer of the most liquid and safest treasuries in Europe:
  - German Bunds of 2, 5, 10 and 30 years, capturing 90% of the total German tradable federal debt.
- Sample period: 2006-2015.
- Data sources
  - IHS Markit Securities Financing Transactions data: daily ISIN level aggregate lending fees, supply and demand, utilizations, fee spread
  - Bloomberg for bond yields and characteristics.



Contractual Savings Institutions (CSIs) as Beneficial Owners

- CSIs are pension funds, life insurers and investment funds. These institutions are responsible for the **wealth preservation** of the average European citizen.
  - Their asset allocation and risk mgmt. practices are heavily regulated (e.g., Solvency II).
  - They hold large amounts of **long maturity government bonds**, to minimize the duration gap between their asset and liability portfolios.

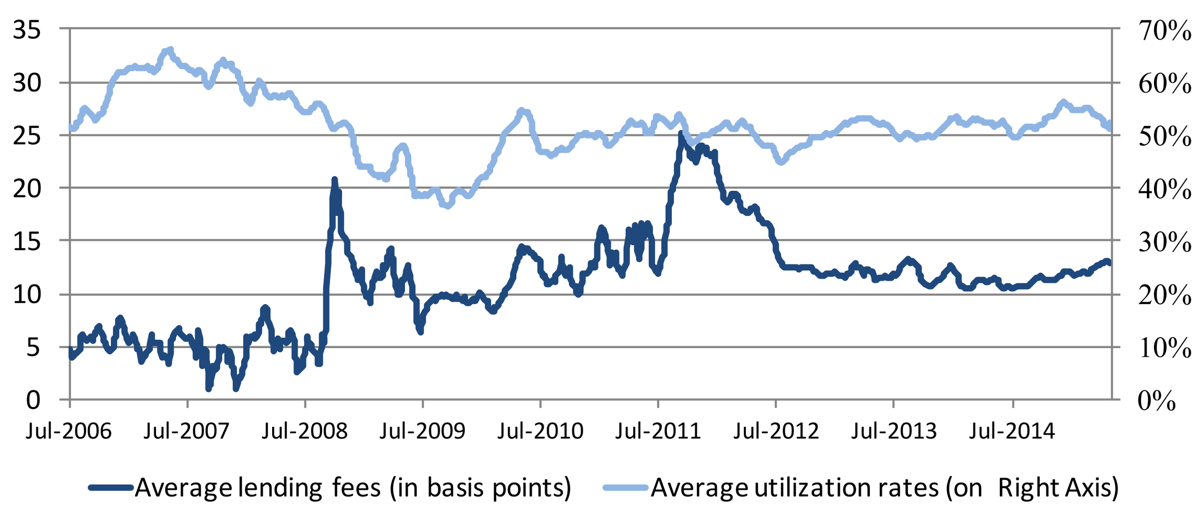




Source: EIOPA

Revenue Sources in the Oligopolistic Sec-Lending Market

- Sec-lending is important for collateral swaps and derivative settlement, where the **demand for specific assets** drives these transactions:
  - Consequently, the benchmark safe asset should earn high fees
  - We document that despite the high utilization rates, lending fees are small <<1%:



- The oligopolistic and non-transparent market structure may distort pricing dynamics, especially in **long-term HQLA segment**:
  - **CSIs** often do not have their internal lending desk and operate through intermediaries and broker-agents instead
  - This makes them **less informed and less connected** in the OTC network, and thus more prone to be misrepresented.

Empirical Results on Sec-lending Market Inefficiencies

- Market efficiency implies that the lending fees **instantaneously capture information**:
  - Fees (prices) are established as the intersection of demand and supply, and they proxy for liquidity.
- **Test pricing efficiency and elasticity** in the HQLA lending market
  - By testing the price response to **endogenous demand shocks** (top 2% shock to lending demand (on loan)) and **anticipated demand shocks** around bank reporting dates (lock in HQLA to decrease regulatory capital buffer).
    - Even after controlling for lending market demand and supply, large positive demand shocks increase lending fees.
    - The effect of the large demand shocks incorporates into fees with a delay of up to three days. This fee response in the long maturity segment (TTM>10yrs) takes longer.
    - Fees increase around reporting dates, especially after 2010, but not in the long maturity segment. Despite the demand pressure, CSIs cannot capitalize from lending.
- **Test agents' discriminatory pricing behavior**
  - The dispersion in lending terms is measured by the **fee spread**: the difference between the highest and lowest fees on a given bond, on a given day.
    - The spread increases with demand and lending fees, which indicates price discrimination. The spreads are even larger in the long maturity segment, which is indirect evidence of misrepresentation of less connected borrowers.

Policy Recommendations

- **Policy recommendation**
  - CSIs should lobby for **regulatory oversight** to increase transparency and reduce market inefficiencies. This is taking place in Europe, where the **SFTR**, a post-trade transparency regulation for lending and repo, will soon come to effect in 2020.
  - Smaller funds could establish a **lending cooperative** to share the costs of a lending desk, while increasing bargaining power.

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