

A Discussion of “**Granular Investors and International Bond Prices**”

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Overview

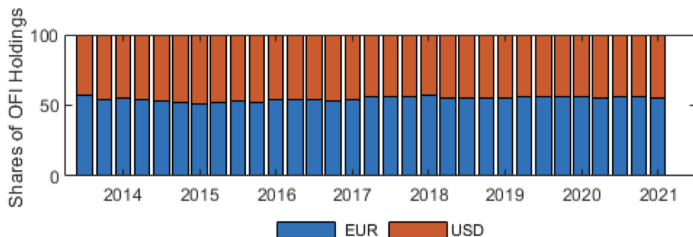
- This paper studies the demand for corporate bonds by the euro-area investors and the impact of heterogeneous demand on bond prices.
- An amazing dataset: all holdings of securities by investors in the euro area at the security level.
- Heterogeneous demand: mutual funds do not display either home-country or home-currency bias, but insurance companies and pension fund (ICPF) do.
- Heterogeneous demand plays a role in EUR-USD corporate bases.
 - ▶ Bonds disproportionately held by ICPF have lower corporate bases.
 - ▶ Longer maturity bonds have lower corporate bases (more purchased by ECB).

Overview

- The paper contributes to the booming literature of asset demand estimation.
 - ▶ Kojien and Yogo (2019 JPE), Kojien et al (2017 AER)
 - ▶ Kojien et al (2017 AER) uses the same data but focus on government debt and how QE affects the portfolio allocations of government debt.
 - ▶ Bretscher et al (2022) on institutional corporate bond pricing.
 - ▶ ...
- Heterogeneous institutional investor demand as instruments.
- An important step towards understanding:
 - ▶ Does corporate-bond demand drive exchange rates?

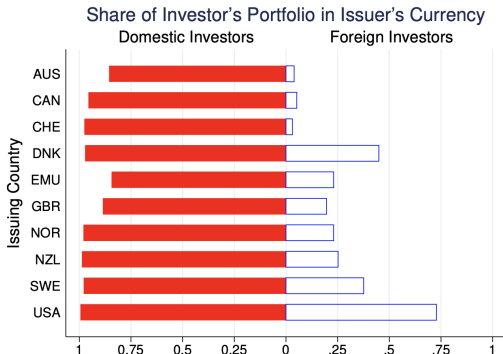
Mutual Funds: is there a home-currency bias?

- This paper: the OFI (mainly mutual funds) display no preference for Euro-denominated corporate debt.
 - ▶ Among corporate bond investment, about half in Euro-denominated bonds.



Mutual Funds: is there a home-currency bias?

- Maggiori, Neiman, and Schreger (2020 JPE): data from Morninstar on mutual funds and ETF.
 - ▶ “EMU”: European monetary union. Strong currency bias. About **80%** of portfolio in Euro-denominated debt.



Supply and Demand Variations

- The typical setup of a demand system for bond n by investor i :

$$\log(\delta_{i,n,t}) = \alpha_i + \beta_{0,i}y_{n,t} + \beta_{1,i}x_t + u_{i,n,t}$$

where $\beta_{0,i} > 0$, $y_{n,t}$ is the yield for bond n , and $\log(\delta_{i,n,t})$ is the portfolio share, with

$$\sum_n \delta_{i,n,t} = 1$$

- Market clearing for each bond equates supply and demand,

$$w_i \sum_i \delta_{i,n,t} = e^{-my_{n,t}} q_{n,t}$$

where $q_{n,t}$ is the units of bond supply.

- The equilibrium yield $y_{n,t}$ is affected not only by characteristics x_t , but also by the supply of bonds. The main specification in the paper therefore misses the quantity variables on the right side.

Investor Demand and Multi-Currency Bond Pricing

- Classical CIP basis,

$$\psi_t^{OIS} \equiv (r_t^{EUR} - r_t^{USD}) + (f_t - s_t)$$

where r_t^{EUR} and r_t^{USD} are interest-rate swap yields.

- Bond basis,

$$\psi_t^{CB} \equiv (y_t^{EUR} - y_t^{USD}) + (f_t - s_t)$$

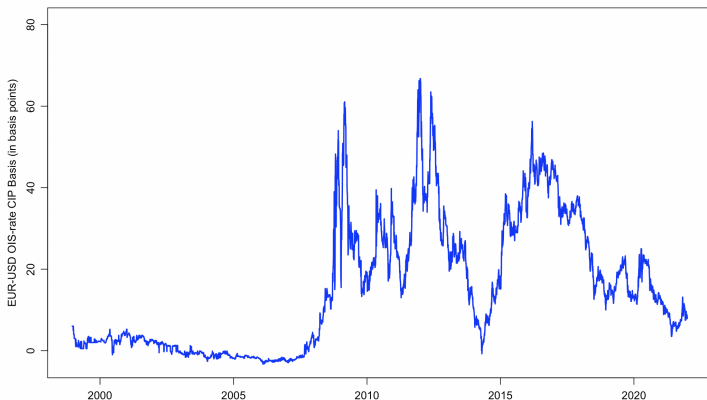
where y_t^{EUR} and y_t^{USD} are corporate bond yields.

Investor Demand and Multi-Currency Bond Pricing

- Classical CIP basis,

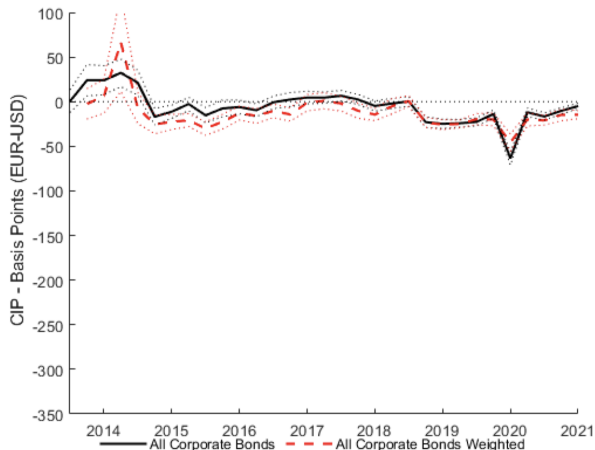
$$\Psi_t \equiv (r_t^{EUR} - r_t^{USD}) + (f_t - s_t)$$

where r_t^{EUR} and r_t^{USD} are interest-rate swap yields.



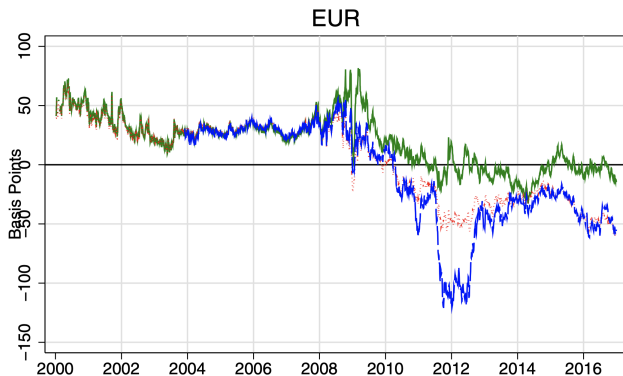
Investor Demand and Multi-Currency Bond Pricing

- Corporate bond basis (from this paper)



Investor Demand and Multi-Currency Bond Pricing

- Government bond basis (from Du, Im, and Schreger 2018). Green line is raw. Red line adjusts for LIBOR CIP, and blue line further adjusting CDS.
 - ▶ Du, Hebert, and Li (2022): intermediary balance sheet regime shifting.



Investor Demand and Currency Pricing – Open Questions

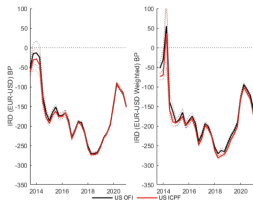
- Corporate bond market, interest-rate swap market, and government bond market: which market is more important for equilibrium currency pricing?

$$\Psi_t^{CB} = \Psi_t^{OIS} + (y_t^{EUR} - r_t^{EUR}) - (y_t^{USD} - r_t^{USD})$$

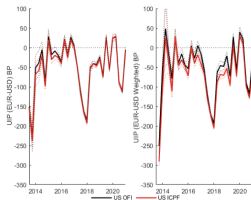
- The paper also considers corporate-bond UIP basis, and raw corporate bond yield differentials. Which trade is more fundamental to exchange rate and dollar specialness?

Investor Demand and Currency Pricing – Open Questions

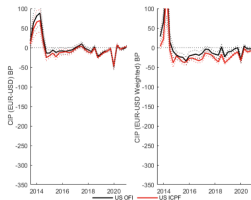
- Average difference: raw > unhedged (UIP) > hedged (CIP)
- Closer-to-arbitrage trade provides a tighter relationship.



(a)
Raw - U.S. Firms



(b)
Unhedged - U.S. Firms



(c)
Hedged - U.S. Firms

Summary

- A great paper with many new interesting facts!
- Take-aways:
 - ▶ Investor bond demand heterogeneity affects corporate bond yield.
 - ▶ QE causes bond-yield responses and portfolio reallocation.
 - ▶ Corporate CIP basis seems more stable than other basis.
- Main comment:
 - ▶ Reconcile mutual-fund findings with literature;
 - ▶ Add supply factors in the yield equation;
 - ▶ Try to compare different bond market and the relative importance of corporate bond.