RODRIGO BARRIA

Warwick Business School, Scarman Road Coventry, CV4 7AL, United Kingdom.
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Interests

Asset Pricing and Market Microstructure, International Finance, Macro-Finance Modeling.
Applied Econometrics.

Education

University of Warwick   Warwickshire, United Kingdom
PhD in Finance   2019 - 1Q2024 (exp)

Goethe University Frankfurt   Frankfurt am Main, Germany
MSc Quantitative Economics (2 year degree)   2009 - 2011

Pontificia Universidad Católica de Chile   Santiago, Chile
Industrial Engineer with Computer Eng. Specialization, Diploma and Licenciatura (BSc)   2001- 2006
(6 year degree)

Other Training

Bayesian Econometrics Summer School (2023, SIdE Italy), Market Microstructure Summer School (2023, UK)

Bank of England Summer Research Internship (2022, UK), Dynare DSGE Modeling Summer School (2022, Cepremap France)

Official Institutions Educational Seminar (2015, Pimco US), International Reserves Management Training Seminar (2017, BlackRock UK)

Research

Job Market Paper: Ambiguity, Trading Volume and Liquidity

In this paper, I construct a trading volume model that explicitly incorporates the impact of ambiguity surrounding public information announcements. I derive a closed form expression that illustrates how ambiguity influences trading volume through two channels: expectations and volatility. The empirical results highlight the significant role played by the expectations channel of ambiguity in driving trading activity. Specifically, on a monthly basis, I observe that a one-standard-deviation increase in ambiguity results in approximately a 19% to 58%-standard-deviation increase in trading volume. Additionally, by employing this model, I demonstrate that a substantial portion of the positive returns of a standard U.S. equity turnover sorted portfolio, approximately 80% of the returns, traditionally attributed to liquidity, are actually driven by information ambiguity.

Working Papers (details below):

> **Mispricing in Inflation Markets** (with Gabor Pinter, BoE Link)

> **Asset Prices Around FOMC Meetings**

> **Analyzing the Economic Outcomes of Peer Effects** (with Alejandro Bernales, Javier Peters, Marcela Valenzuela, Miguel Valenzuela and Ilknur Zer)

Work in Progress (details below):

Global Inflation Expectations Transmission and Ambiguity

Teaching Experience (Warwick)

Corporate Finance (IB 2360, undergraduate, Business School, 2021 and 2022)

Investment Management (IB9490, master, Business School, 2021)

Work Experience

Central Bank of Chile | Financial Markets Division and Financial Risk Unit	Santiago, Chile
Financial Economist / Quant	2015 – 2019

Allianz Global Investors | RiskLab	Münich, Germany
Associate in Financial Engineering	2013 – 2015

Deutsche Zentral-Genossenschaftsbank (DZ Bank)	Frankfurt am Main, Germany
Market Risk Controller Analyst	2012 – 2013

LarrainVial Investment Bank	Santiago, Chile
Fixed Income Investment Analyst	2007 – 2009

Other Skills / Interests

Programming: Advanced programming in python, Matlab, R, C++, java, excel vba. Experience in distributed parallel computing using Matlab Parallel Computing Toolbox and Intel MPI Library. Advanced programming and management of SQL, MySQL, Access and TimeScape databases. Experience working with high frequency TAQ data, EMIR and MiFID data. Experience working with Stata and Sas.

Experienced user of Bloomberg Terminal, Bloomberg Data License, Murex and Intex. Experience working with Datastream/Thomson Reuters.

Languages: Spanish (native), English (fluent) and German (business fluent).

Interests: Sailing, jogging, ski.

Awards

Warwick WBS Scholarship (2019-2023), Pontificia Universidad Católica de Chile 'Matrícula de Honor' Undergraduate Academic Scholarship 2001.

Conference and Seminar Presentations

Money Macro Finance Conference (MMF) 2022, PhD-EVS 2022, Inter-Finance PhD Seminar 2022, Bank of England 2023, Annual Meeting of The Austrian Economic Association 2023, Market Microstructure Summer School 2023, Lancaster-Manchester PhD Workshop 2023, Warwick (2021 - 2023).

References

Available upon request.

Working Papers Details

Mispricing in Inflation Markets (with Gabor Pinter, [BoE Link](#))

We use UK transaction-level data on nominal bond, inflation-linked bond and inflation swap markets to study trading behavior and prices in inflation markets. Our empirical analysis yields five main results: (i) there is persistent inflation mispricing over the 2018–22 period, with nominal gilts on average 135 basis points more expensive (per £100 notional) than their synthetic counterparts constructed from inflation swaps and inflation-linked bonds; (ii) hedge funds respond to changes in mispricing but their response does not constitute arbitrage – they adjust their bond portfolios appropriately, but do not hedge these trades in the inflation swap market; (iii) inflation markets are largely segmented with liability-driven investors and pension funds (LDI-P) dominating the inflation swap market, and many clients that are active in bond markets are absent in the inflation swap market; (iv) LDI-P activity is a key driver of inflation mispricing – the sector's orderflows in inflation-linked bonds and (to lesser extent) nominal bonds and inflation swaps contribute significantly to day-to-day variations in mispricing; (v) the generally weak link between market-based measures of inflation expectations and survey-based measures is strengthened once we clean market prices from the effect of LDI-P trading activity.

Asset Prices Around FOMC Meetings

In this paper, I uncover a significant pattern in the behavior of G10 currencies and equity implied volatility, which explains a substantial portion of their net returns from 1994 to 2019. The vast majority of the positive returns from a long-short position in G10 currencies and a substantial 90% of the cumulative negative returns in implied volatility are concentrated on the even weeks around U.S. FOMC meetings. In contrast, odd weeks, encompass on average nearly all the negative returns from such a long-short position in G10 currencies and all the increases in implied volatility. This interplay between these opposing dynamics explains most of the net returns of these assets over the 26-year period. U.S. equities show a similar pattern. Furthermore, I establish that this recurring even-odd weeks cycle is explained by a combination of repetitive calendar events at the beginning of the month (start of the month effect) and on the day-16 (day-16 effect), along with sporadic shocks primarily related to political news. This explanation also extends to equities, with evidence dating back to 1955. Recurring patterns in liquidity, tied to U.S. Treasury instrument cashflows and the interbank market, play a pivotal role in driving this phenomenon.

Analyzing the Economic Outcomes of Peer Effects
(with Alejandro Bernales, Javier Peters, Marcela Valenzuela, Miguel Valenzuela and Ilknur Zer)

We study the wealth effects of peer-following behavior of pension fund managers. We structure our analysis around a stylized model where overestimating peers' information quality leads to investment losses. Empirically, we first confirm that funds follow peers in portfolio allocations. We then quantify the economic damage of peer-effects through a counterfactual fund that is not peer-influenced. We find evidence of underperformance in funds with high levels of foreign investment, in which the managers have less expertise and rely more on their competitors' information. The economic impact of peer effects is meaningful, translating into a 30%-48% loss in workers' pension wealth.

Work In Progress Details

Global Inflation Expectations Transmission and Ambiguity

I show how ambiguity affects the transmission of inflation relevant announcements across countries and its impact on local inflation markets and expectations.