# **Martin Farias**

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## **EDUCATION**

• Ph.D. in Economics. CEMFI, Madrid, Spain. 2020-Spring 2024 (expected)

• Master in Economics and Finance. CEMFI, Madrid, Spain. 2018-2020

2012-2017

Bachelor of Arts in Economics.
 Universidad Nacional de Córdoba (UNC), Córdoba, Argentina.

INTERESTS

Applied microeconomics; corporate finance; bank and non-bank financial intermediation.

REFERENCES

Javier Suarez

Samuel Bentolila

Rafael Repullo

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repullo@cemfi.es

## **EXPERIENCE**

#### Working papers

• The Allocation of Cash Flow by Spanish Firms: New Evidence on the Impact of Financial Frictions. Download the latest version here.

This paper studies the impact of financial frictions on the allocation of cash flow using administrative data of Spanish non-financial corporations from 2003 to 2019. My findings reveal that larger financial frictions are, on average, associated with a higher proportion of cash flow allocated to debt repayment and lower proportions allocated to cash savings, investment, and dividend distribution. The analysis also highlights that the effect of financial frictions on the allocation of cash flow varies significantly with variables capturing the economic and financial situation of each firm such as leverage, cash holdings, capital, and the availability of investment opportunities.

• A Model of Interacting Banks and Money Market Funds (w/ Javier Suarez). Download the latest version here.

We examine the interaction between banks and Money Market Funds (MMFs) in a setup where the latter can experience large redemptions following an aggregate liquidity shock (as in March 2020). MMFs experiencing correlated redemptions get forced to sell assets to banks in narrow markets, producing asset price declines. Ex-post price declines damage firms' capacity to cover their needs with the redeemed shares. Ex-ante the prospect of such an effect reduces the attractiveness of MMFs relative to bank deposits. Yet the equilibrium allocation of firms' savings exhibits an excessive reliance on MMFs since firms fail to internalize their effect on the size of the pecuniary externalities caused by future redemptions. This provides a rationale, distinct from first mover advantages, for the macroprudential regulation of the investment in MMFs.

#### Work in Progress

• Decoding Distress: The Behavior of Firms Preceding Bankruptcy. Draft available upon request. Short abstract: I train several machine learning algorithms (Logit Regression, XGBoost) to develop an early warning system that predicts firms' bankruptcy. I also discuss a series of facts about firm dynamics preceding bankruptcy.

## Research Assistance

- Research Assistant for professor Guillermo Caruana, CEMFI. Jan 2022 Pres. My tasks include:
  - Using the API of a popular mobile game to track the behavior of users over time.
  - Cleaning the data and using it to study the prevalence of loss aversion and its interaction with fatigue.
  - Writing reports discussing my findings and supervising the tasks of a junior research assistant.
- Research Assistant for professor Guillermo Caruana, CEMFI. Summer 2019
   My tasks included:
  - Developing algorithms in Python to predict tennis match outcomes.
  - Comparing the accuracy of these algorithms with that of well-established techniques like ELO.
  - Communicating my findings to the research team working on the project.

### Teaching Assistant

• Corporate Finance, at CEMFI.

2021 - 2022

• Microeconomics, at CEMFI.

2020

- Programa Universitario de Gestión Bancor FCE UNC. Mar 2018 Jun 2018
   We offered online training to 1,400 employees of Banco de Córdoba on topics such as the financial system in Argentina and the role of the bank, ICTs and their influence on the banking business, management tools, banking products, leadership, and teamwork.
- Introduction to Economics, at UNC. (Profesor Ayudante B) Feb 2018 Mar 2018
- Statistics II, at UNC. (Profesor Ayudante B)

Oct 2017 - Aug 2018

## Junior Researcher

Junior Researcher, Professional Council of Economics of Cordoba. May 2016
 - Jun 2017

I was part of a team of economists producing monthly reports on the economic situation of Argentina, covering topics such as monetary policy, fiscal policy, international trade, and inflation, among others. The team was also in charge of producing a price index for a subset of cities in Córdoba with monthly frequency.

# RELEVANT COURSES

- Macroeconomics and Climate Change, by John Hassler and Per Krusell. Topics: The natural science of climate change, climate damages, natural resource economics, directed technical change, good and bad climate policies.
- Machine Learning in Finance, by Ansgar Walther.

  Topics: The bag-of-words model, latent Dirichlet allocation, word embedding models, large language models, convolutional neural networks.
- Introduction to Experimental Analysis, by Dmitry Arkhangelsky.

  Topics: Static A/B testing, adaptive experiments, dynamic experiments.
- Unstructured Data in Empirical Economics, by Stephen Hansen.

  Topics: Supervised and unsupervised machine learning models, reinforcement learning, interpretability and causal inference in machine learning.
- Programa de Formación en Normas, Prácticas y Técnicas Bancarias, by BCRA and ABAPPRA. (90 hours)
   Module I: Regulation and supervision of financial institutions; Active operations (Loans); Passive operations; Capital markets; Financial risks. Module II: Credit standards; Liquidity, solvency, and dividends; Bank accounting and external auditing. Module III: Foreign exchange; User protection; Information security; Security in financial institutions; Payment system.

# SCHOLARSHIPS AND AWARDS

• Santander Research Chair at CEMFI. May 2021 - Present

• CEMFI PhD Scholarship. Sep. 2020 - Apr. 2021

• Fundación Carolina Scholarship. 2018-2020

• University Award, Universidad Nacional de Córdoba. 2017

• Scholarship for Promotion of Scientific Capabilities. 2015

**LANGUAGES** Spanish (*Native*), English (*Fluent*).

NATIONALITY Argentinian & Spanish.

**COMPUTER** R, Python, Julia, MATLAB, STATA, SQL. **SKILLS**