# Murilo Silva

# DEPARTMENT OF ECONOMICS UNIVERSITY OF CALIFORNIA, RIVERSIDE

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# **CONTACT INFORMATION**

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## **EDUCATION**

Ph.D., Economics, University of California, Riverside (expected completion June 2025)

M.S., Economics, Federal University of Santa Catarina, Brazil, 2020

B.S., Economics, Federal University of Ceara, Brazil, 2017

## FIELDS OF INTEREST

Macroeconomics, Finance, Applied Econometrics, Climate Change

#### **JOB MARKET PAPER**

#### "Climate Disaster Risk and Stock Returns" (link)

This paper investigates whether climate disaster risk is priced in the cross-section of U.S. stock returns. I construct national and state-level climate disaster indices for the Contiguous United States based on the physical strength of acute climate hazards (storms, floods, droughts, and heatwaves). These indices are used to estimate stock return covariance with physical climate risk, which leads to finding that safer stocks, those with a higher climate disaster beta, earn lower future returns. In particular, this negative relation between climate disaster beta and future returns becomes more pronounced following times of heightened disaster risk. This paper further shows that geographically dispersed business operations and high cash holdings pay off when the market is concerned about climate change risk. These findings are consistent with the risk-return tradeoff and the asset pricing implications of demand for stocks with high potential to hedge against climate risk.

#### **JOURNAL PUBLICATIONS**

"The Brazilian granular business cycle" (<u>link</u>) with Sergio Da Silva, *Economics Bulletin* (2020)

We investigate whether the granular hypothesis holds for the Brazilian business cycle and find that idiosyncratic shocks to net revenues of the top 100 companies explain about one-third of

GDP fluctuations for annual data. Quarterly data cannot dismiss the granular hypothesis either. However, the granular hypothesis seems to break down after the 2008 financial crisis.

"A power law in the ordering of the elements of the periodic table" (<u>link</u>) with Sergio Da Silva, Raul Matsushita, *Physica A* (2020)

We discover a power law in the periodic table between atomic number and atomic weight that overlaps Mendeleev's periodic law. Its Pareto exponent is computed as 1.0909. The power law can offer extra help in the quest for the next unknown element.

"The Impact of Monetary Policy in Banks Balance Sheets: Evidence for Brazil (in Portuguese)" (link) with Alexandre Schwinden Garcia, Roberto Meurer, Revista Brasileira de Economia de Empresas (Brazilian Journal of Business Economics) (2019)

This paper aims to verify the existence of the bank lending channel in the Brazilian economy, that is, if monetary policy movements affect the lending behavior of the banks and if there are asymmetric effects among the banks. For large banks, it has been found that funding increases in response to a contractionary monetary policy. For the higher liquidity accounts, the results point to a reduction in the growth rate of these accounts for small and medium-sized banks. In addition, a contractionary monetary policy does not affect small and medium-sized banks' credit operations, while it has positive effects on large banks' credit operations. From the evidences found, it was not possible to confirm the existence of the lending channel for the Brazilian economy.

"Regressive Prediction is the Best Way to Forecast Sports Outcomes: Evidence from Brazilian Soccer" (link) with Sergio Da Silva, *Open Access Library Journal* (2019)

We illustrate through a case study that regressive prediction is the best method to forecast sports outcomes. By taking predictions of promotion to first division soccer from a mathematician from one of the most famous sports websites in Brazil, we show that making Bayesian updates is misleading when we expect regression to the mean. The expert failed to realize that the more extreme the results are, the more regression is expected, because extremely good scores suggest very lucky days.

#### **RESEARCH IN PROGRESS**

"Fifty Shades of Green: Central Bank Communication About Climate Change and Inflation Expectations" with Jana Grittersova, Eleonora Mavroedi

"Evolving Climate Risk in Europe" with Marcelle Chauvet, Claudio Morana

### FELLOWSHIPS, HONORS, AND AWARDS

2024: Outstanding Teaching Assistant Award, UC Riverside

2020: Dean's Distinguished Fellowship, UC Riverside (2020-2023)

2018: Masters Fellowship, CAPES, Ministry of Education, Brazil

#### **TEACHING**

Instructor, UC Riverside

Intermediate Macroeconomics, Summer 2024

Managerial Economics, Summer 2024

Industrial Organization, Summer 2023

Introduction to Microeconomics, Summer 2022

Teaching Assistant, UC Riverside

Macroeconomic Theory (Graduate level), Winter 2023

Intermediate Macroeconomics, Spring 2022, Fall 2022, Spring 2023, Fall 2023

Stock Market, Spring 2024

Statistics for Economics, Summer 2022

Introduction to Macroeconomics, Fall 2021, Winter 2022

Introduction to Microeconomics, Winter 2024

#### TECHNICAL SKILLS

Python, R, Stata, MATLAB, WRDS, OxMetrics, EViews, Microsoft Office, LaTeX

#### **REFERENCES**

Marcelle Chauvet	Jana Grittersova	Dongwon Lee
Professor and Chair	Associate Professor	Associate Professor
UC Riverside	UC Riverside	UC Riverside
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