

Giorgi Chavchanidze

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EDUCATION

Boston College Carroll School of Management, Boston, Massachusetts

Aug 2021 - May 2024

Master of Science (STEM), Quantitative Finance, *PhD GPA: 3.7*

Center for Economic Research and Graduate Education - Economic Institute of the Czech Academy of Sciences (CERGE-EI), Prague, Czechia

Sep 2019 - July 2021

Double Master of Arts, Economics (MA) and Economic Research (MAER), *MAER GPA: 1.00 (Highest)*

Alumni Excellence Fellowship, Visegrad Scholarship

American University In Bulgaria (AUBG), Blagoevgrad, Bulgaria

Sep 2014 - May 2018

Bachelor of Arts, Double Major in Mathematics and Economics, *GPA: 3.97*

Summa Cum Laude, Disciplinary Honors in Mathematics, Disciplinary Honors in Economics

Open Society Foundation Full Tuition Scholarship

EXPERIENCE

Independent Research, Tutoring and Career Exploration

Aug 2024 – Present

- Independent Tutor in Quantitative Finance, Probability Theory and Econometrics
- For Research and Career Exploration, please refer to *Statement of Purpose and Extraordinary Circumstances*

Boston College ([Global #17 in Finance](#)) | Boston, MA

Aug 2021 – May 2024

Doctoral Researcher in Quantitative Finance

- Developed [a new Asset Pricing model](#) that can explain at least 3 phenomena unaccounted for by other models

Teaching Assistant for Fundamentals of Finance (for 2 semesters)

- Conducted review sessions and graded exams in a class of 100 and 150 students
- Guided students through challenging material during weekly office hours and individual appointments
- Designed a grading system using R and LaTeX for automating grade computations and feedback provision based on the mistakes made in exams (which resulted in greater transparency and speed of grading)

CERGE-EI ([3 Nobel Laureates in Executive Board](#)) | Prague, Czechia

Sep 2019 – July 2021

Doctoral Student in Economics/Econometrics and Research Assistant

- Automated the assessment of matching specifications, which resulted in 3X less human effort and 3X more speed
- Created R program for analyzing sentiment in a large feedback dataset, which delivered quick aggregate insights
- Proofread math in a faculty [working paper](#) (acknowledged in the footnotes), which led to ~15 improvements

Other

(Older) Research: BA/MS/PhD Papers in Probability Theory, Credit Risk, (Continuous-Time) Asset Pricing [here](#)

Research Interests: Theoretical/Empirical Asset Pricing, Subjective Beliefs, Behavioral/Bounded-Rationality Finance, Blockchain/Cryptocurrencies, Machine Learning Applications in Finance, Evolutionary Finance, Life-Cycle Investments

Software: R, Python, STATA, MATLAB, SQL

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References

David Solomon, Professor of Finance, Boston College

Doctoral Adviser | david.solomon@bc.edu

Rui Albuquerque, Professor of Finance, Boston College

Doctoral Adviser | rui.albuquerque@bc.edu

Paolo Zacchia, Assistant Professor of Economics, CERGE-EI

RA Supervisor and Lecturer | Paolo.Zacchia@cerge-ei.cz

The Main Paper Referred to in *Statement of Purpose*

Time-Varying Subjective Bad Regime Risk: New Framework for Understanding Asset Prices

Abstract

In most equilibrium asset pricing models, investors are assumed to know the dynamics of firm cash flows and economic fundamentals for sure. I develop a new regime-switching framework that relaxes this assumption without losing mathematical rigor or empirical tractability. In the model, investors know true cash flow dynamics conditional on macroeconomic or asset-level expansions and contractions, but do not know transition dynamics between the regimes. Using a new solution concept, I obtain asset prices in closed form for given subjective beliefs about future regime likelihood and show how beliefs can be jointly backed out from the term structures of long-term bond yields and individual and S&P500 VIX measures and their futures.

The new framework qualitatively explains a wedge between investor risk premium and observed average excess returns, a cyclical gap between subjective risk premia and realized excess returns, a pro-cyclical gap between VIX and realized volatility, yield curve inversion/reversions without a regime shift, return predictability, narrative momentum, market crashes without macroeconomic contractions, and fast price recoveries during economic downturns.

Working version of the paper can be accessed [here](#).

Brief response to the Spring Finance Workshop committee criticism can be accessed [here](#).

Research Proposals Based on the Main Paper

1. [Web3 Cryptocurrency Valuation](#)
2. [A New Framework For Mapping Investor Surveys to Asset Pricing Models and Its Application to Pensions Industry \(Involves Extension to Investor Heterogeneity\)](#)
3. [Return Predictability, Predictability of Fundamentals and Diagnostic Expectations](#)
4. Micro-founding Regime Beliefs using Rational Inattention Theory (Check [Early-Stage Work](#) that Predates the Main Paper for a General Idea)
5. Empirical Implementation of the Main Paper Using VIX Data (Check [the Last Paragraph](#) for a Brief Description)

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Early-Stage Working Papers

Borrower-Lender Game, Firm Outcomes and Systemic Risk

[Shashwat Agrawal](#) and Giorgi Chavchanidze

Abstract

We develop a game-theoretic model to analyze a strategic interaction between a small firm and its lender within a credit reporting setting. The lender faces a trade-off. Reporting information risks losing the borrower by helping it unlock additional funding opportunities, while withholding information protects the borrower-lender relationship at a potential cost of firm default and non-payment in the event of default. The firm observes the economic state and its credit record and decides whether to search for new funding. We estimate the model using loan and firm data for India, Brazil, and the US from 2005 to 2022 with GMM and analyze the implications for the design of credit registries and financial stability policy.