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Personal Information:

Date of birth: 06/13/1991
Citizenship: France

Undergraduate Studies:

Corps des Mines, Government and Business Program, 2016
MSc in Mathematics and Economics, Ecole Polytechnique, 2015

Graduate Studies:

Harvard University, 2016 to present

Ph.D. Candidate in Economics

Thesis Title: "Three Essays in Macro-Finance"

Expected Completion Date: May 2022

References:¹

Professor Andrei Shleifer
Littauer Center M-9
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Professor Ludwig Straub
Littauer Center 211
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Professor Jeremy Stein
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(617) 496-6455, jeremy_stein@harvard.edu

Professor Sam Hanson
Bloomberg Center 361
(617) 495-6137, shanson@hbs.edu

¹ Professor Emmanuel Farhi was my primary advisor before he passed away in 2020.

Teaching and Research Fields:

Primary fields: Macroeconomics, Finance

Secondary field: Behavioral Economics

Teaching Experience:

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| Spring 2021: | International Macroeconomics (Graduate), Harvard University, teaching fellow for Professor Rogoff |
| Spring 2020: | Intermediate Macroeconomics (Undergraduate), Harvard University, teaching fellow for Professor Foote |
| Spring 2019: | Behavioral Finance (Graduate), Harvard University, teaching fellow for Professor Gennaioli |
| Fall 2018: | Capital Markets (Undergraduate), Harvard University, teaching fellow for Professor Bordalo |

Research Experience and Other Employment:

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| 2019: | Research Assistant for Professor Shleifer |
| 2015-2016: | Orange Middle East and Africa, Acquisition Analyst |
| 2015: | Société Générale, Financial Engineer |

Professional Activities:

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| Refereeing: | Quarterly Journal of Economics, American Economic Journal: Macroeconomics |
| Papers Presented at Conferences: | Sloan-Nomis Workshop on the Cognitive Foundations of Economic Behavior (NYU), Miami Behavioral Finance Conference (Poster session), AFA poster session, Econometric Society World Meetings, NBER Behavioral Finance Working Group Meeting, SITE Psychology and Economics (Stanford), CU-RIDGE 2021 Financial Stability Workshop (Planned) |

Honors, Scholarships, and Fellowships:

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| 2021: | Certificate of Distinction in Teaching, Harvard University |
| 2019: | Certificate of Distinction in Teaching, Harvard University |
| 2015: | Corps des Mines Full Scholarship |
| 2012-2015: | Ecole Polytechnique Full Scholarship |

Working Papers:

“Optimal Policy for Behavioral Financial Crises” (Job Market Paper)

How should policymakers adapt their macroprudential and monetary policies when the financial sector is vulnerable to belief-driven boom-bust cycles? I develop a model in which financial intermediaries are subject to collateral constraints, and that features a general class of deviations from rational expectations. I show that distinguishing between the drivers of behavioral biases matters: when biases are a function of equilibrium asset prices, new externalities arise, even in models that do not have any room for policy in their rational benchmark. I build on this theory to examine policy implications. First, the policymaker should use counter-cyclical capital buffers and time-varying loan-to-value ratios. These restrictions must be strengthened in times of over-optimism, as well as when the regulator is concerned that over-pessimism will arise in a future crisis. Second, uncertainty about the precise extent of behavioral biases in financial markets increases the incentives for the planner to act early. Finally, when biases depend on asset prices, an additional instrument is needed to act directly on asset prices. I study the use of monetary policy for this objective, and show that “leaning against the wind” can be desirable even when these macroprudential tools are unconstrained. The policymaker raises interest rates when there is a fear that high asset prices today, even if entirely warranted by fundamentals, can trigger extrapolation later on. Conventional monetary policy however loses power in normal times when agents expect the central bank to lean against the wind in the future.

“Partial Equilibrium Thinking in General Equilibrium” (*with Francesca Bastianello*)

We develop a theory of "Partial Equilibrium Thinking" (PET), a type of misinference whereby agents fail to understand the general equilibrium consequences of their actions when inferring information from endogenous outcomes. PET generates a two-way feedback between outcomes and beliefs, which can lead to arbitrarily large deviations from fundamentals. In financial markets, PET equilibrium outcomes exhibit over-reaction, excess volatility, high trading volume, and return predictability. We draw a distinction between models of misinference and models with biases in Bayesian updating, and study how these two departures from rationality interact. We show that misinference from mistakenly assuming the world is rational can vastly amplify biases in Bayesian updating, and that the distinction between these two biases can have important quantitative implications.

“Partial Equilibrium Thinking, Extrapolation, and Bubbles” (*with Francesca Bastianello*)

We model a financial market where some agents mistakenly attribute any price change they observe to new information alone, when in reality part of the price change is due to other agents' buying/selling pressure, a form of bounded rationality that we refer to as “Partial Equilibrium Thinking” (PET). PET provides a microfoundation for price extrapolation, where the degree of extrapolation depends on the informational edge of informed agents. In normal times, this edge is constant and bubbles and crashes do not arise. By contrast, following a large one-off innovation in fundamentals that temporarily wipes out informed agents' edge (a “displacement event”), extrapolation by PET traders is initially very aggressive but then gradually dies down, leading to bubbles and endogenous crashes. Micro-founding the degree of extrapolation in this way allows us to shed light on both normal market dynamics and on the Kindleberger (1978) narrative of bubbles within a unified framework.

Research in Progress:

“Monopsonistic Competition: Diagnosis and Remedies”

This paper characterizes the general inefficiencies caused by the monopsony power of firms. I develop micro-foundations such that aggregation yields a Kimball functional form for the disutility of labor. I then develop a model with heterogeneous firms and entry featuring non-strategic market power on price- and wage-setting. Departing from CES allows the model to produce flexible labor supply curves, and delivers equilibria that are generically inefficient. Building on Baqaee and Farhi (2020), welfare improvements are possible along three distinct margins: entry levels, selection cutoff along productivity levels, and the relative size of firms. I show that the enactment of a minimum wage policy interacts with these three margins: it modifies entry incentives, forces the least productive firms to exit, and in general equilibrium causes reallocation of resources among surviving firms. I show that estimating the welfare impacts of such minimum wage policies rest on identifying price markups and wage markdowns on the whole distribution of firms, as well as the full shape of the elasticity of consumption and of the disutility of labor.

“Credit Cycles and Model Misspecification” (with *Francesca Bastianello*)

We propose a behavioral theory of credit cycles that rests on model misspecification. Banks infer information about the underlying quality of the pool of borrowers by looking at credit volume, but use a misspecified model to do so. Their inferred beliefs then influence their current lending standards, which in turn lead to changes in aggregate credit volume and future beliefs, thus giving rise to a two-way feedback between outcomes and beliefs. We highlight three sets of results. First, following a positive shock, agents' beliefs become decoupled from fundamentals, and banks perceive the quality of the pool of borrowers to be increasing even when it is in fact decreasing. This helps rationalize the well-established fact that booms are associated with decreasing credit spreads and a deteriorating quality of funded borrowers. Second, we allow the quality of the pool of borrowers to be endogenous, and we show how the interaction of our behavioral bias with dynamic strategic substitutabilities in lending standards generates endogenous credit cycles with systematic reversals. Third, we turn to forecast errors to show that since the influence of beliefs on aggregate credit volume is state-dependent, the size of the behavioral bias is also state-dependent, and the response to positive and negative shocks is asymmetric.

“On the Predictability of Forecast Errors” (with *Francesca Bastianello*)

Regressions aimed at detecting forecast errors predictability are a widespread tool to assess deviations from the full information rational expectations equilibrium benchmark. We show that interpreting these regression coefficients as evidence of over- or under-reaction may be misleading when the object of interest is an endogenous variable. We simulate scenarios where an econometrician would detect short-term under-reaction and long-term over-reaction, when in reality the equilibrium outcome exhibits over-reaction at all horizons when compared to the rational expectations benchmark. We then turn to stock market expectations data and compare regression results on earnings and dividends (exogenous variables) with those on price targets (endogenous variable). Regressions of forecast errors predictability are still instructive of the precise biases agents have, but only when they are interpreted through the lens of the underlying structural model.