UNIVERSITY OF CALIFORNIA, IRVINE

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December 9th, 2019

Selection Committee
National Bureau of Economic Research
1050 Massachusetts Ave.
Cambridge, MA 02138
United States

Greta Meggiorini
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3151 Social Sciences Plaza
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Dear Members of the Selection Committee,

I am writing to apply for the Behavioral Macroeconomics Research Boot Camp. I am currently a third year Ph.D. Candidate in Economics at the University of California, Irvine.

My main research areas are Behavioral Macroeconomics and Monetary Economics. My current research focuses on models that introduce departures from rational expectations and I have worked closely with Woodford's finite horizon model, Gabaix's macroeconomic inattention model, and Angeletos and Lian's model without common knowledge.

In my application packet, I have enclosed my CV, cover letter, and a two page essay. My recommendation letter will be written and sent by Fabio Milani. I would be happy to send you additional material as needed. You can contact me by phone at (425)-375-1816 or via email at gmeggior@uci.edu. I look forward to hearing from you.

Sincerely,

Greta Meggiorini
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Greta Meggiorini

Research Interests

Behavioral Macroeconomics, Monetary Economics, Bayesian Econometrics

Education

2017–present **University of California, Irvine**, *Ph.D.*, Economics.

2017–2018 **University of California, Irvine**, *M.A.*, Economics, *with distinction in Macroeconomics.*

2014–2017 **University of Padova**, *B.Sc.*, Aerospace Engineering, *110/110.*
Thesis: *"Space debris removal: optimal mission planning"*

Publication

"Bounded Rationality, Monetary Policy and Macroeconomic Stability", *with Francisco Ilabaca and Fabio Milani*, Economics Letters.
Forthcoming, 2019.

This paper estimates a Behavioral New Keynesian model to revisit the evidence that passive US monetary policy in the pre-1979 sample led to indeterminate equilibria and sunspot-driven fluctuations, while active policy after 1982, by satisfying the Taylor principle, was instrumental in restoring macroeconomic stability. The model assumes "cognitive discounting", i.e., consumers and firms pay less attention to variables further into the future. We estimate the model allowing for both determinacy and indeterminacy. The empirical results show that determinacy is preferred both before and after 1979. Even if monetary policy is found to react only mildly to inflation pre-Volcker, the substantial degrees of bounded rationality that we estimate prevent the economy from falling into indeterminacy.

Working Papers

"Behavioral New Keynesian Models: A Look through the Window".

"Behavioral New Keynesian Models: Infinite Horizon Learning vs. Cognitive Discounting", *with Fabio Milani.*

"Finite Planning Horizons, Expectations, and Learning", *with Fabio Milani.*

Ph.D. Courses

Fall 2017 **Microeconomic Theory I, Macroeconomic Theory I, Statistics and Econometrics I**.

Winter 2018 **Microeconomic Theory II, Macroeconomic Theory II, Statistics and Econometrics II**.

Spring 2018 **Microeconomic Theory III, Macroeconomic Theory III, Statistics and Econometrics III**.

Fall 2018 **Monetary Economics I, International Trade**.

Spring 2019 **Monetary Economics II, Open Economy Macroeconomics**.

Winter 2020 **Macroeconomics and Finance**, *(expected)*.

Spring 2020 **Advanced Macroeconomics I**, *(expected)*.

Experience

2017–present **Teaching Assistant**, UC Irvine.

Graduate, *Ph.D. course*, Macroeconomic Theory III, (Spring 2019).

Undergraduate, Intermediate Economics II, (Winter 2019, Spring 2018); Asymmetric Information (Fall 2018, Fall 2019); Basic Economics I (Winter 2018); Risk and Uncertainty (Fall 2017).

Fall 2020 **Ph.D. Internship**, Norges Bank.
(planned)

Seminar Presentations

recurring **Macroeconomics Workshops**, UC Irvine.

July 2019 **Padova Macro Talks**, University of Padova.

Fellowships

2017–present **Non-Resident Merit Fellowship, School of Social Sciences**, UC Irvine.

2019 **Summer Research Fellowship, Department of Economics**, UC Irvine.

Language and Computer Skills

Italian (native), English (fluent), Spanish (basic)

MATLAB, Dynare, LaTeX

Membership

2018–present **Women in Economics**, UC Irvine.

2019–present **Mentoring program for incoming Ph.D. students**, UC Irvine.

References

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Essay

Greta Meggiorini

My main research areas are Behavioral Macroeconomics and Monetary Economics. My current research focuses on departures from rational expectations and I work closely with New Keynesian models in this literature. In particular, I have worked with the finite horizon model proposed by Woodford (2018), the macroeconomic inattention model proposed by Gabaix (2019), and the model without common knowledge proposed by Angeletos and Lian (2018).

The three aforementioned behavioral models are the focus of my current working paper, "Behavioral New Keynesian Models: a look through the window". I use a rolling window approach and Bayesian methods to estimate and compare the models. I find that with regard to model fit, no model strictly outperforms the others in terms of marginal likelihood. Woodford's model, however, does perform better in most windows; the better fit reflects that this model can induce slow-moving trends in key variables, generating substantial persistence in the dynamics. When I allow for stochastic trends in key variables in Gabaix's model and Angeletos and Lian's model, the three models perform almost identically. A rolling window estimation allows me to analyze the evolution of the behavioral parameters. In the baseline models, I find that these parameters are relatively stable over time. When I allow for stochastic trends, however, these parameters vary over time. In particular, I find that in a period of high uncertainty like the 1970s, agents have higher levels of attention and common knowledge compared to any other window.

Another recent project on behavioral models resulted in a co-authored paper with Francisco Ilabaca and Fabio Milani, "Bounded Rationality, Monetary Policy, and Macroeconomic Stability," forthcoming in *Economics Letters*. This paper estimates the macroeconomic inattention model proposed by Gabaix (2019) to revisit the evidence that passive U.S. monetary policy in the pre-1979 sample led to indeterminate equilibria and sunspot-driven fluctuations, while active policy after 1982 was instrumental in restoring macroeconomic stability. The empirical results show that determinacy is preferred both before and after 1979. Even if monetary policy is found to react only mildly to inflation in the pre-Volcker era, the substantial degrees of bounded rationality that we estimate prevent the economy from falling into indeterminacy. We estimate the model by allowing for parameter values that fall in the determinacy or indeterminacy regions using the techniques proposed by Bianchi and Nicoló (2019).

In a working paper with Fabio Milani, "Behavioral New Keynesian Models: Infinite-Horizon Learning vs. Cognitive Discounting," we introduce adaptive learning in a model of macroeconomic inattention proposed by Gabaix (2019). We use infinite horizon expectations à la Preston (2005) to evaluate the importance of cognitive discounting in a model with boundedly-rational expectations. We let the model decide whether these components can coexist, or, alternatively, inattention is not as needed in a model with learning. Preliminary results show that inattention is less important than in a model with rational expectations.

In the same line of research, another preliminary working paper with Fabio Milani, "Finite Planning Horizons, Expectations, and Learning" introduces subjective expectations obtained through learning in the finite horizon model proposed by Woodford (2018). In Woodford's model, even if only for a finite horizon, there are still strong informational requirements. We relax the rational expectation assumption in the expectation formation and allow agents to learn about the relationships in the model.

Going forward, I plan to further extend my work on behavioral models. I would like to incorporate the idea proposed by Ascari et al. (2019) with a behavioral New Keynesian model similar to that proposed by Gabaix and Woodford. The typical stability result hinges on the idea that under rational expectations agents stay on the saddle path since they recognize that the economy would have explosive properties outside of it, which would not be consistent with the transversality conditions. This assumption implicitly assumes unrealistic abilities on the part of the agents. Behavioral models, however, obtain stability in a more intrinsic way through bounded rationality. I am interested to see whether the results show that behavioral features always make the economy more stable or whether the economy is still subject to unstable paths, especially during the pre-Volcker period and the Zero Lower Bound period.

Participating in this Boot Camp represents a big opportunity to learn from and exchange ideas with expert researchers in the field. I would benefit from meeting students whose focus over the past few years has been similar to mine to connect and possibly collaborate in the future. Attending the presentations at the Workshop will allow me to expand my understanding and knowledge of behavioral models and presents a valuable opportunity to get inspiration and ideas for future research and enhance my current work.