

Tolga Ozden

PhD Candidate in Economics



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Programming Experience

Matlab

R

C++

oxMetrics

Stata

Eviews

Languages

English

German

Turkish

Japanese

Dutch

*Teaching evaluations for some of the courses are available on request.

Fields of Research

 Macroeconomics, Time Series Analysis.

Education

2017-2020	PhD Candidate in Economics Expected Defense Date: 05.2021 Supervisor: Prof. Cars Hommes (<i>University of Amsterdam & Bank of Canada</i>) Co-advisor: Dr. Kostas Mavromatis (<i>De Nederlandsche Bank</i>)	University of Amsterdam
2015-2017	M.Phil in Economics (8.3/10, <i>cum laude</i>)	Tinbergen Institute
2012-2012	Erasmus Exchange Program Department of Economics	Utrecht University
2011-2015	B.A in Economics (3.9/4, <i>highest distinction</i>)	Bogazici University
2006-2011	German Abitur High School	Istanbuler Gymnasium

Research Visits & Relevant Work

2020-	Research Department	<i>De Nederlandsche Bank</i> , Amsterdam
2019-2020	PhD Intern, Prudential Policy Directorate	<i>Bank of England</i> , London
2018-2019	PhD Intern & Visiting Researcher	<i>National Bank of Belgium</i> , Brussels
2018	Simulation-Based Science Weekly Meetings, Coordinator	Institute for Advanced Studies, University of Amsterdam
2014-2015	Research Assistant, Center for Econometrics	Bogazici University
2014	Summer Intern, Deutsche Bank	Istanbul

Awards & Achievements

2015-2017	Amsterdam Merit Scholarship, <i>University of Amsterdam</i>
2015-2017	Full Scholarship, <i>Tinbergen Institute</i>
2015	Holland Scholarship, <i>University of Amsterdam</i>
2015	2 nd /120, Department of Economics, <i>Bogazici University</i>
2012	Erasmus Mobility Grant, <i>Bogazici University</i>
2011-2015	Ibrahim Bodur Scholarship, <i>Kale Holding A.S</i> , Turkey

Teaching Portfolio*

2017-2020	Teaching Assistant Time Series Econometrics (Bachelor, 3 rd year) Mathematical Economics (Bachelor, 3 rd year)	University of Amsterdam
2016-2017	Teaching Assistant Time Series Econometrics (M.Phil, 1 st) General Equilibrium Theory (M.Phil, 1 st year)	Tinbergen Institute
2016-2017	Teaching Assistant Introduction to Finance (Bachelor, 1 st year)	Amsterdam Business School
2016-2017	Teaching Assistant Various MSc Finance/MBA courses	Amsterdam Business School
2013-2015	Teaching Assistant Public Finance (Bachelor, 3 rd year) Industrial Organization (Bachelor, 3 rd year) Intermediate Microeconomics (Bachelor, 2 nd year)	Bogazici University

Selected Presentations

2020 - ExSIDE Network PhD Workshop, **University of Surrey**; **EEA Virtual 2020**; CeNDEF Lunch Seminar, University of Amsterdam; **Bank of Canada** Lunch Seminar (Virtual); Tinbergen Institute Summer School 2020 (Virtual), Guest Presenter.

2019 - *Expectations in Dynamic Macroeconomic Models* (poster), **Barcelona GSE Summer Forum**; **Bank of England Internal Seminar**, London; WEHIA 2019, Bank of England Invited Policy Session, **City University London**; *Economic Modeling and Data Science (EcoMod 2019)*, **University of the Azores**, Ponta Delgado; *Doctoral Summer Workshop in Economics (Scientific Committee & Discussant)*, **Ca'Foscari University of Venice**; *Doctoral Workshop (QED Network)*, **Nova Business School**, Lisbon; **EEA 2019**, University of Manchester.

2018 - 14th *Dynare Conference*, **European Central Bank**, Frankfurt; *New Ways of Thinking about Economic Policy (Discussant)*, **Bank of England**, London; *Computing in Economics and Finance (CEF 2018)*, Milan; *New Approaches to Macro-Financial Instability*, **University of Bamberg**; *Workshop on Adaptive Learning in Macroeconomics*, Bilbao; *SBS Weekly Meetings*, **Institute for Advanced Studies**, University of Amsterdam; *CIMS DSGE Summer School Conference*, **University of Surrey**; *Doctoral Workshop on Economic Theory*, **University of Bielefeld**.

External Courses, Workshops and PhD Training

- **NBER Research Bootcamp** for PhD students, 2020; **Empirical Time Series Methods for Macroeconomic Analysis**, Barcelona GSE Summer School, 2018; **Advanced Course on Occasionally Binding Constraints**, University of Surrey, 2018; **Macroeconomic Modeling of Regime Switches**, CEF 2018 Pre-Conference Workshop, 2018; **Statistical Learning and Data Science**, Tinbergen Econometrics Lectures, 2017; **Expectations in Dynamic Macroeconomic Models**, De Nederlandsche Bank, 2016.

References

Cars Hommes

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Rafael Wouters

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Research

You may visit my [personal webpage](#) for an overview of my past and current research projects.

Research Papers:

Restricted Perceptions, Regime Switches and the Effective Lower Bound

(Joint with Rafael Wouters)

Using non-linear Bayesian estimation methods, this paper analyzes the implications of alternative private sector expectation processes over the business cycle, when monetary policy is restricted by the Zero Lower Bound (ZLB) constraint on the nominal interest rates.

Behavioral Learning Equilibria in the New Keynesian Model, De Nederlandsche Bank Working Papers No. 654

(Joint with C. Hommes, K. Mavromatis and Mei Zhu)

R&R at Quantitative Economics

This paper introduces a novel class of equilibria with boundedly rational agents, that we define as Behavioral Learning Equilibria. We develop an estimation method for the highly non-linear system, and provide a direct comparison with the standard Rational Expectations Equilibria to outline the differences in monetary policy implications.

Expectations and Learning: a Horse-race in a Medium-scale DSGE Model**

(In progress, joint with C. Hommes & K. Mavromatis)

This paper extends the Behavioral Learning equilibria concept to a medium-scale DSGE model to evaluate the out-of-sample forecasting performance of DSGE models with boundedly rational agents. We find that, relative to the standard Rational Expectations models, adaptive learning and bounded rationality substantially improve the out-of-sample forecasting performance over the business cycle.

Heterogeneous Expectations and Regime Switching (In progress)

This paper provides an assessment of heterogeneous expectations and forward guidance over the ZLB period for the U.S., U.K. and the Eurozone using a novel regime-switching method. For all economies, the counterfactual results suggest that limiting agents' learning and anchoring private sector expectations has a stabilizing role over the ZLB period.

Macroprudential Policy Interactions in a Sectoral DSGE Model with Staggered Interest Rates

(joint with M. Hinterschweiger, K. Khairnar & T. Stratton)

This paper develops a medium-scale two-sector DSGE model for the U.K. with a banking sector to assess the impact of the Financial Policy Committee's macroprudential tools over the business cycle, in particular the minimum, sectoral and countercyclical capital requirements, as well as loan-to-value limits on household and corporate borrowing volumes.

Other relevant policy work:

Results of a massive experiment on virtual currency endowments and money demand. PLOS ONE 12(10): e0186407. (Joint with Castronova E. and Zivic N, Andjelkovic I & Dekic M.)