

# Tolga Ozden

PhD Candidate in Economics



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## Programming

Matlab



R



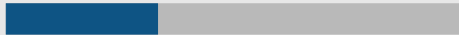
C++



oxMetrics



Stata



Eviews



## Languages

English



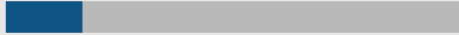
German



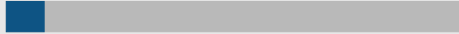
Turkish



Japanese



Dutch



\*Detailed evaluation reports for some of the courses are available on my personal webpage.

\*\*The latest available drafts can be found on my personal webpage.

\*\*\*Awarded a travel grant.

## Hobbies



## Fields of Research

Time Series Analysis, Bayesian Econometrics.

## Education

10.2017–	PhD Candidate in Economics Department of Quantitative Economics Supervisors: Prof. Cars Hommes ( <i>University of Amsterdam &amp; 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 <b>De Nederlandsche Bank</b> , Amsterdam
2019-2020	PhD Intern, Prudential Policy Directorate <b>Bank of England</b> , London
2018-2019	PhD Intern & Visiting Researcher <b>National Bank of Belgium</b> , Brussels
2018	Simulation-Based Science Weekly Meetings, Coordinator Institute for Advanced Studies, University of Amsterdam
2016-2017	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 <sup>nd</sup> /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, Turkey</i>

## Teaching Portfolio\*

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

## Selected Presentations

**2020** -PhD Workshop, ExSIDE Network, **University of Surrey**; **EEA 2020** (Scheduled).

**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**<sup>\*\*\*</sup>; *Doctoral Workshop (QED Network)*, **Nova Business School**, Lisbon; **EEA 2019**, University of Manchester.

**2018** -14<sup>th</sup> *Dynare Conference*, **European Central Bank**, Frankfurt; *New Ways of Thinking about Economic Policy (Discussant)*, **Bank of England**, London<sup>\*\*</sup>; *Computing in Economics and Finance (CEF 2018)*, Milan; *New Approaches to Macro-Financial Instability*, **University of Bamberg**<sup>\*\*</sup>; *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**<sup>\*\*</sup>.

## 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**, 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

### Research

#### Cars Hommes

Director of CeNDEF  
University of Amsterdam, Department of Economics  
Senior Research Advisor, Bank of Canada  
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#### Rafael Wouters

Senior Research Advisor  
National Bank of Belgium  
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#### Kostas Mavromatis

Senior Economist  
De Nederlandsche Bank  
k.mavromatis@dnb.nl

#### Marc Hinterschweiger

Senior Economist  
Bank of England  
Marc.Hinterschweiger@bankofengland.co.uk

### Teaching

#### Cees Diks

Department of Economics, University of Amsterdam  
C.G.H.Diks@uva.nl

#### Jan Tuinstra

Department of Economic, University of Amsterdam  
J.Tuinstra@uva.nl

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

## Research Papers:

### De-anchored Expectations and the Zero Lower Bound (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.*

### Restricted Perceptions and Regime Switches\*\*

(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

*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.*

### 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.)