Joep Lustenhouwer

Personal Data

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Research Interests

Macroeconomics, Bounded rationality, Monetary policy, Fiscal policy, Experimental macroeconomics, Expectation formation

Current Appointment

2019 - present Assistant professor (juniorprofessor),University of Heidelberg

Previous Appointments

2017 - 2019 Postdoctoral Fellow, Otto-Friedrich-Universität Bamberg

Education

2014 - 2017 **PhD in Economics (Cum Laude, highest Dutch distinction)**
University of Amsterdam
Thesis Supervisor: Prof. Cars Hommes
Thesis Title: "*Monetary and Fiscal Policy under Bounded Rationality and Heterogeneous Expectations*"

2013 - 2014 **2nd Year of Research Master Economics and Econometrics**
Tinbergen Institute
GPA over two years: 8.3 (out of 10)
Specializations: Macroeconomics and Behavioral Economics

2012 - 2013 **Fast Track for 1st Year of Research Master Economics and Econometrics**
Tinbergen Institute

2012 - 2013 **MSc Econometrics (Cum Laude)**
University of Amsterdam
GPA: 8.25 (out of 10)

2008 - 2012 **BA Econometrics and Operations Research (Cum Laude)**
University of Amsterdam
GPA: 8.45 (out of 10)
Specialization: Econometrics
Electives in: Macroeconomics, Psychology, Operations Research

Awards and Grants

2019 - 2021	Research Grant, *Deutsche Bundesbank*. Project: "The Role of Behavioral Expectations in the Transmission of Monetary and Fiscal Policy: Evidence from Macro-Experiments" jointly with Prof. Dr. Christian Proaño (University of Bamberg)
2019	Research Grant, C*ommittee for research and young talent (FNK), University of Bamberg.* Project: "Are Some People More Equal than Others? Experimental Evidence on Group Identity and Income Inequality." jointly with Dr. Tomasz Makarewicz (University of Bamberg)
2018 - 2019	Conference Grant, *Macroeconomic Policy Institute (IMK).* Project: "Behavioral Macroeconomics Workshop", organization and participants' travel support
2018	Conference Grant, *German Academic Exchange Service (DAAD).* Project: "Behavioral Macroeconomics Workshop", organization and participants' travel support
2014 - 2017	Research Talent grant for PhD research, *NWO (Netherlands Organisation for Scientific Research)*
2015	H.K. Nieuwenhuis Thesis award 2014 for best MSc thesis, *Faculty Economics and Business, University of Amsterdam*
2013 - 2014	Full scholarship conditional on performance, *Tinbergen Institute*

Teaching Experience and Training

2020	**Behavioral Macroeconomics** at University of Heidelberg, Lecture + Tutorial, Bachelor
2019 - 2020	**Computational Macroeconomics** at University of Heidelberg, Lecture + Tutorial, Master
2019	**Makroökonomik II** (in German) at University of Bamberg, Lecturer, Bachelor
2019	**Computational Macroeconomics** at University of Bamberg, Lecturer, Master
2018	**Advanced Macroeconomics** at University of Bamberg, Lecturer, Master
2018	**Programming in Python for Macroeconomists** at University of Bamberg, Lecturer, Master
2017 - 2018	Seminar course: **Advanced Topics in Behavioral Macroeconomics** at University of Bamberg, Master
2017	**Mathematics IV,** Course in Bachelor in Econometrics at University of Amsterdam, Teaching Assistant, Bachelor
2014 - 2016	**Mathematics,** Course in Bachelor in Economics at University of Amsterdam, Teaching Assistant, Bachelor
2016	Attended a 5 week Didactic course for PhD students (15 contact hours)
2012 - 2013	Individual Tutoring in Mathematics and Statistics

Conference Presentations

2019 Jahrestagung 2019 *verein für socialpolitik* in Leipzig; *Expectations in Dynamic Macroeconomic Models 2019* in Barcelona;

2018 23th *Spring meeting of young economists* in Mallorca; 23rd *CEF* conference in Milan; *International Congress on Economics* in Quito; *First Behavioral Macroeconomics Workshop* in Bamberg; *BEAM-ABEE Workshop* in Amsterdam;

2017 21th Conference of the Forum for Macroeconomics and Macroeconomic Policies (FMM) in Berlin; 32th Annual Congress of the *European Economic Association (EEA)* in Lisbon; 70th European Meeting of the Econometric Society (ESEM) in Lisbon; 23rd *CEF* conference in New York;

2016 4th annual *GENED* meeting in Bamberg; Learning conference: *Expectations in Dynamic Macroeconomic Models* at Dutch National Bank (poster) ; 22nd *CEF* conference in Bordeaux; second Annual Dissemination Conference of *MACFINROBODS* at National Bank of Belgium (poster); *QED jamboree* in Amsterdam; 21th *Spring meeting of young economists* in Lisbon;

2015 Second Annual workshop of *MACFINROBODS* in Barcelona (poster); *Behavioral Macro* workshop in Amsterdam; 30th Annual Congress of the *European Economic Association (EEA)* in Mannheim; first

Annual Dissemination Conference of *MACFINROBODS* at National Bank of France (poster); *QED Jamboree* in Cardiff.

Invited Seminars

2019	University of Lancaster
2018	Free University Berlin
2017	Humboldt-University of Berlin and Technical University Berlin (Schumpeter Seminar)

Professional Services

Conference organization (and scientific committee)	*Second behavioral macroeconomics workshop: Heterogeneity and Expectations in Macroeconomics and Finance* in Bamberg (2 days, 80 participants). *First behavioral macroeconomics workshop: New Approaches to Macro-Financial Instability and Inequality* in Bamberg (2 days, 60 participants).
Referee	European Economic Review; International Journal of Central Banking; Journal of Economic Behavior & Organization; Journal of Economic Dynamics and control; Macroeconomic Dynamics; Journal of Macroeconomics; Journal of Economic Interaction and Coordination.
Discussion	Learning conference: *Expectations in Dynamic Macroeconomic Models* at Dutch National Bank; Conference: *Learning, Heterogeneity and Networks in Macroeconomic Models* at University of Surrey.

Publications

Lustenhouwer J. (2019), Unanchored Expectations: Self-reinforcing Liquidity Traps and Multiple Steady States**.** ***Macroeconomic Dynamics,*** *forthcoming****.***

Hommes, C.H. & J. Lustenhouwer (2019b), Inflation Targeting and Liquidity Traps under Endogenous Credibility. ***Journal of Monetary Economics,*** *107, 48-62.*

Hommes, C.H. & J. Lustenhouwer, (2019a), Managing Unanchored, Heterogeneous Expectations and Liquidity Traps. ***Journal of Economic Dynamics and Control***, *101, 1-16*.

Hommes, C.H., Lustenhouwer, J. & K. Mavromatis (2018), Fiscal Consolidations and Heterogeneous Expectations. ***Journal of Economic Dynamics and Control*** *87, 173-205*.

Working papers

Hagenhoff, T. & J. Lustenhouwer (2019), The Rationality Bias. BERG Working Paper 144, Universität Bamberg

Lustenhouwer J. (2020), Fiscal Stimulus in Expectations-Driven Liquidity Traps. Discussion Paper Series No. 683, Universität of Heidelberg.

Ahrens S., J. Lustenhouwer & M. Tettamanzi (2018), The Stabilizing Role of Forward Guidance: A Macro Experiment. *BERG Working Paper 137, Universität Bamberg*.

Lustenhouwer, J. & K. Mavromatis (2017), Fiscal Consolidations and Finite Planning Horizons. BERG Working Paper 130, Universität Bamberg.

Research in progress

"A Bayesian Estimation of Planning horizons" (joint with Kostas Mavromatis, Giorgio Motta and Mike Tsionas)
"Planning Horizons and Fiscal Shocks: Evidence from the Lab" (joint with Isabelle Salle)
"Are Some People More Equal than Others? Experimental Evidence on Group Identity and Income Inequality" (joint with Tomasz Makarewicz, Juan Carlos Peña and Christian Proaño)

Abstracts

Inflation Targeting and Liquidity Traps under Endogenous Credibility

Policy implications are derived for an inflation targeting central bank, whose credibility is endogenous and depends on its past ability to achieve its targets. This is done in a New Keynesian framework with heterogeneous and boundedly rational expectations. We find that the region of allowed policy parameters is strictly larger than under rational expectations. However, when the zero lower bound on the nominal interest rate is accounted for, self-fulfilling deflationary spirals can occur, depending on the credibility of the central bank. Deflationary spirals can be prevented with a high inflation target and aggressive monetary easing.

Managing Unanchored, Heterogeneous Expectations and Liquidity Traps

We study the possibility of (almost) self-fulfilling waves of optimism and pessimism and self-fulfilling liquidity traps in a New Keynesian model with a continuum of heterogeneous expectations. In particular, all agents choose, based on past forecasting performance, expectation values out of a distribution around the targets of the central bank. This framework allows us to explicitly model the "anchoring" of expectations as the variance of this distribution of possible expectation values. We find that when the zero lower bound on the nominal interest rate is not binding, adequate monetary policy can prevent waves of optimism and pessimism and exclude near unit root dynamics, even when expectations are unanchored. However, as shocks bring the economy to a situation with a binding zero lower bound, there is a danger of a long lasting self-fulfilling liquidity trap that can take the form of a deflationary spiral. This can be prevented if expectations are strongly enough anchored to the targets, or if the inflation target is high enough.

Fiscal Consolidations and Heterogeneous Expectations

We analyze fiscal consolidations using a New Keynesian model where agents have heterogeneous expectations and are uncertain about the composition of consolidations. We look at spending-based and tax-based consolidations and analyze their effects separately. We find that the effects of consolidations and the output multipliers are sensitive to heterogeneity in expectations before and after implementation of a specific fiscal plan. Depending on the beliefs about the type of consolidation prior to implementation, we show that heterogeneity in expectations may lead to optimism in the economy improving thus the performance of a specific fiscal plan, or can work towards the opposite direction leading to pessimism, amplifying the contractionary effects of the consolidation. Interestingly, we find that wrong beliefs about the composition of fiscal consolidation may improve or harm the effectiveness of the latter, depending on the degree of heterogeneity.

Unanchored Expectations: Self-reinforcing Liquidity Traps and Multiple Steady States

We study a New Keynesian model with bounded rationality, where agents choose their expectations heterogeneously from a discrete choice set. The range of their set of possible expectation values can be interpreted as the anchoring of expectations. In the model, multiple locally stable steady states can arise that reflect coordination on particular expectation values. Moreover, bad shocks to the economy can trigger a self-reinforcing wave of pessimism, where the zero lower bound on the nominal interest rate becomes binding, and agents coordinate on a locally stable liquidity trap steady state. When we let the anchoring of expectations evolve endogenously, it turns out that the anchoring of expectations at the time the bad shocks hit the economy is crucial in determining whether the economy can recover from the liquidity trap. Finally, we find that a higher inflation target makes it less likely that self-reinforcing liquidity traps arise.

The Rationality Bias

We analyze differences in consumption and wealth that arise because of different degrees of rationality of households. In particular, we use a standard New Keynesian model and let a certain fraction of households be fully rational while the other fraction possesses less cognitive ability. We identify the rationality bias of boundedly rational agents, defined as a deviation from the fully rational benchmark, as the driver of consumption and wealth heterogeneity. It turns out that the rationality bias can be decomposed into three individual components: the consumption expectation bias, the real interest rate bias and the preference shock expectation bias. We show that for certain specifications of monetary policy the rationality bias can be eliminated because its individual components exactly offset each other although they are individually non-zero. However, it might not be desirable from a welfare perspective to eliminate the rationality bias as this comes along with high inflation volatility.

Fiscal Stimulus in Expectations-driven Liquidity Traps

I study liquidity traps in a model were agents have heterogeneous expectations and finite planning horizons. Backward-looking agents base their expectations on past observations, while forward-looking agents have fully rational expectations. Liquidity traps that are fully or partly driven by expectations can arise due to pessimism of backward-looking agents. Only when planning horizons are finite, these liquidity traps can be of longer duration without ending up in a deflationary spiral. I further find that fiscal stimulus in the form of an increase in government spending or a cut in consumption taxes can be very effective in mitigating the liquidity trap. A feedback mechanism of heterogeneous expectations causes fiscal multipliers to be the largest when the majority of agents is backward-looking but there also is a considerable fraction of agents that are forward-looking. Labor tax cuts are always deflationary and are not an effective tool in a liquidity trap.

The Stabilizing Role of Forward Guidance: A Macro Experiment

Expectations are among the main driving forces for economic dynamics. Therefore, managing expectations has become a primary objective for monetary policy seeking to stabilize the business cycle. In this paper, we study if central banks can manage market expectations by means of forward guidance in a New Keynesian learning-to-forecast experiment. Forward guidance takes the form of inflation forecasts that are published each period by the central bank. Subjects in the experiment observe this forecast along with the historic development of the economy and subsequently have to submit their own inflation forecasts. In this context, we find that central banks can significantly manage market expectations through forward guidance and that this management strongly supports monetary policy in stabilizing the economy. Furthermore, we find that forward guidance drastically reduces the probability of a deflationary spiral after a strong negative shock to the economy.

Fiscal Consolidations and Finite Planning Horizons

We analyze fiscal consolidations using a New Keynesian model where agents have finite planning horizons. Both consumers and firms are infinitely lived, but only plan and form expectations up to T periods into the future. Agents' planning horizons play an important role in determining how spending cuts or tax increases affect output and inflation. We find that for both short and long planning horizons, tax based consolidations reduce debt faster than spending based consolidations. However, the relative performance of spending based consolidations is improved when monetary policy is more aggressive, or when there is less debt in the economy.