## Matthias Rottner

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## Education

09/2016 - present	Ph.D. in Economics, European University Institute
	Advisors: Evi Pappa, Leonardo Melosi
	Thesis Title: "Essays in Macroeconomics"
01/2019 - 06/2019	Visiting Researcher, Federal Reserve Bank of Chicago
01/2019 - 06/2019	Visiting Researcher, Northwestern University
09/2016 - 08/2017	MRes in Economics, European University Institute
09/2014 - 08/2016	MSc in Economics, University of Copenhagen
04/2011 - 03/2014	BA in Economics, University of Erlangen-Nürnberg

#### References

Evi Pappa	Leonardo Melosi	Francesco Bianchi
Professor	Senior Economist	Associate Professor
Universidad Carlos III Madrid	Federal Reserve Bank of Chicago	Duke University
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## Research and Teching Fields

Primary Field: Macroeconomics

Secondary Fields: Monetary Policy, Macro-Finance, Quantitative Methods

## Professional Experience

09/2020 - 12/2020	Consultant, European Central Bank DG Macroprudential Policy and Financial Stability
09/2019 - 08/2020	PhD Traineeship, European Central Bank DG Macroprudential Policy and Financial Stability
08/2018 - 12/2018	Internship, Deutsche Bundesbank DG Financial Stability
Summer 2015,16,17	Internship, Bank of Estonia Research Unit
04/2014 - 06/2014	Internship, Kiel Institute for the World Economy Economics and Research Department

#### Teaching

09/2019	Macro-Prudential Policy: A Quantitative Approach (Graduate) Florence School of Banking and Finance, TA for Enrique Mendoza
11/2017 - 01/2018	Macroeconomics I (Graduate) European University Institute, TA for Axelle Ferrière
10/2011 - 03/2014	Statistics (Undergraduate) University of Erlangen-Nürnberg, TA for Ingo Klein

## Working Papers

#### Financial Crises and Shadow Banks: A Quantitative Analysis (Job Market Paper)

What is the role of shadow banks in the emergence of financial crises? I develop a nonlinear macroeconomic model of shadow banks with banking panics to assess the endogenous probability of a financial crisis. In this framework, rising leverage of shadow banks increases the possibility of a banking panic and causes financial fragility. Consistent with the recent financial crisis, the resulting dynamics reconcile that a crisis is preceded by a credit boom and elevated leverage. Fitting the model to US data, I estimate the probability of a financial crisis. The quantitative model finds significant and increasing risk of a banking panic already from 2005 onwards. I illustrate that levying a leverage tax for shadow banks would have lowered the probability of a banking panic substantially. Reduced-form empirical evidence corroborates the tight link between leverage and the risk of financial crises.

#### Hitting The Elusive Inflation Target with F. Bianchi and L. Melosi

Since the 2001 recession, average core inflation has been below the Federal Reserve's 2% target. This deflationary bias is a predictable consequence of the current symmetric monetary policy strategy that fails to recognize the risk of encountering the zero lower bound. An asymmetric rule according to which the central bank responds less aggressively to above-target inflation corrects the bias, improves welfare, and reduces the risk of deflationary spirals - a pathological situation in which inflation keeps falling indefinitely. This approach does not entail any history dependence or commitment to overshoot the inflation target and can be implemented with an asymmetric target range.

# Reversal Interest Rate and Macroprudential Policy with M. Darracq-Pariès and C. Kok

Could a monetary policy loosening entail the opposite effect than the intended expansionary impact in a low interest rate environment? We demonstrate that the risk of hitting the rate at which the effect reverses depends on the capitalization of the banking sector using a non-linear macroeconomic model calibrated to the euro area economy. The framework suggests that the reversal interest rate is located in negative territory of around -1%. The possibility of the reversal interest rate creates a novel motive for macroprudential policy. We show that macroprudential policy in the form of a countercyclical capital buffer, which prescribes the build-up of buffers in good times, can mitigate substantially the probability of encountering the reversal rate, improves welfare and reduces economic fluctuations. This new motive emphasizes also the strategic complementarities between monetary policy and macroprudential policy.

## Work in Progress

Draconian Lockdown vs. Selective Screening with Leonardo Melosi

Understanding Adventures at the Zero Lower Bound Through Heterogenity

## Presentations (incl. scheduled)

Danmarks Nationalbank Research Unit Seminar, European University Institute Macro Working Group, European Central Bank DG-MF Seminar Series, NBER SI 2020 Monetary Economics (co-author presented), CEPR and Bank of Finland Joint Conference on Monetary Policy Tools, VfS Annual Conference 2020, 4rd Annual Workshop of ESCB Research Cluster 3 (discussant), 28th Annual Symposium of the Society for Nonlinear Dynamics and Econometrics, De Nederlandsche Bank 23rd Annual Research Conference

2019 Northwestern University Macroeconomics Lunch Seminar, Bank of Estonia Christmans Seminar

2018 Deutsche Bundesbank DSGE Working Group, Bank of Estonia Christmas Seminar, European University Institute Macro Working Group

## **Scholarships**

2021	PhD Grant, European University Institute
2016 - 2020	PhD Scholarship, German Academic Exchange Service (DAAD)
2019	U.S. Department Visiting Grant, European University Institute

## Training Activities and Summer Schools

2018	Credit and the Macroeconomy, FBF Florence, Moritz Schularick
2018	Financial Frictions and Macroprudential Policy, FBF Florence, Nobuhiro Kiyotaki
2018	Regime Switching VAR & DSGE models, BI Oslo, Junior Maih & Daniel Waggoner
2017	Estimation with DSGE $\&$ Time-Series Models, CEMFI Madrid, Marco Del Negro
2017	Computational Methods, FBF Florence, Fabio Canova & Wouter den Haan
2016	Macroeconometrics Summer School, BGSE Barcelona, Luca Gambetti & Gary Koop

#### Skills

Languages: English (fluent), German (native), French (conversational), Estonian (basic)

Software: Matlab, Dynare, Stata, Python, LATEX