Enrico Wegner

Contact

School of Business and Economics, Maastricht University — e.wegner@maastrichtuniversity.nl
Citizenship: German — enweg.github.io
github.com/enweg

Research Fields

Primary: Macroeconometrics, Time Series Econometrics
Secondary: Causal Inference and Policy Evaluation, Bayesian Econometrics, Macroeconomics

Education

PhD in Econometrics — Feb 2023 – exp. 2027
School of Business and Economics, Maastricht University
Advisors: Stephan Smeekes, Ines Wilms, Lenard Lieb.

MSc Economic and Financial Research (specialisation Econometrics) — Sep 2020 – Feb 2023
School of Business and Economics, Maastricht University
Graduated Summa Cum Laude (GPA 9.43/10).

BSc Econometrics and Operations Research — Sep 2017 – Aug 2020
School of Business and Economics, Maastricht University
Graduated Summa Cum Laude (GPA 9.49/10).

Job Market Paper

Transmission Channel Analysis in Dynamic Models
with Lenard Lieb, Stephan Smeekes, and Ines Wilms arXiv:2405.18987

We propose a framework for the analysis of transmission channels in a large class of dynamic models. To this end, we formulate our approach both using graph theory and potential outcomes, which we show to be equivalent. Our method, labelled Transmission Channel Analysis (TCA), allows for the decomposition of total effects captured by impulse response functions into the effects flowing along transmission channels, thereby providing a quantitative assessment of the strength of various transmission channels. We establish that this requires no additional identification assumptions beyond the identification of the structural shock whose effects the researcher wants to decompose. Additionally, we prove that impulse response functions are sufficient statistics for the computation of transmission effects. We demonstrate the empirical relevance of TCA for policy evaluation by decomposing the effects of policy shocks arising from a variety of popular macroeconomic models.

Publications

Esener, S., Wegner, E., Almeida, R. J., Baştürk, N., and Rodrigues, P. (2024). Quantifying Uncertainty of Portfolios using Bayesian Neural Networks. *2024 International Joint Conference on Neural Networks (IJCNN)*. DOI: 10.1109/IJCNN60899.2024.10650382

Working Papers

Bluwstein, K., McLeay, M., and Wegner, E. The Anatomy of Monetary Policy Transmission: Which channels matter? Under policy embargo; available upon request.

Miao, G. and Wegner, E. (2022). Recent Trends in Transport and Insurance Costs and Estimates at Disaggregated Product Level. *OECD Statistics Working Papers No. 2022/02*. DOI: 10.1787/b5dbab02-en

Miao, G. and Wegner, E. (2022). Using Unit Value Indices as Proxies for International Merchandise Trade Prices. *OECD Statistics Working Papers No. 2022/01*. DOI: 10.1787/27a5abd7-en

Work in Progress

Wegner, E. and Hartl, T. Transmission Channel Analysis in Linear State-Space Models.

Research and Professional Experience

Bank of England
Monetary Analysis Division
PhD Intern Jul – Sep 2025
Contributed to the November 2025 Monetary Policy Report, Box B.

Organisation for Economic Co-operation and Development (OECD)
Trade and Productivity Statistics Unit
External Consultant Feb – Aug 2022
Developed the initial methodology behind the OECD AIS Vessel Tracking Dashboard.
Intern Jul 2021 – Jan 2022
Updated and evaluated the ITIC and Merchandise Trade Price Index databases.

School of Business and Economics, Maastricht University
Research Assistant (Supervisor: Nalan Baştürk) Feb – Aug 2022
Bayesian Neural Networks for financial risk management.
Student Assistant (Supervisor: Ines Wilms) Apr – Jul 2021
Contributed to software and interactive learning material.
Teaching Assistant Oct 2020 – Apr 2021

Honours and Awards

Selected participant, Lindau Nobel Laureate Meeting in Economic Sciences	2025
Summa Cum Laude, MSc Economic and Financial Research (GPA 9.43/10)	2023
Summa Cum Laude, BSc Econometrics and Operations Research (GPA 9.49/10)	2020

Presentations and Conference Participation

Presentations

Virtual Israel Macro Meeting (invited)	2026
3rd Frankfurt Summer School	
EEA-ESEM Congress	
CEBRA Annual Meeting	
RCEA International Conference	
VTSS Workshop	2025
EC^2	2024
Deutsche Bundesbank Vo-Seminar	
Cornell Statistics Seminar	
Macro, International and Labour Economics Seminar, Maastricht University	2023
European Seminar on Bayesian Econometrics	2022
Econometrics Seminar, Maastricht University	2022, 2024

Posters The Netherlands Econometric Study Group (2023, 2025); European Seminar on Bayesian Econometrics (2023)

Participation NBER-NSF Time Series Conference (2024); POLICYMETRICS Summer School, Barcelona School of Economics (2024); The Netherlands Econometric Study Group (2023, 2024, 2026); Econometric Methods of Climate Change (2023)

Teaching Experience

Tutor, Maastricht University. Figures are average tutor grades (out of 10) by academic year.

Probability Theory for BSc. Econometrics and Operations Research
Undergraduate tutorial (6.5 ECTS). Introduces the probabilistic foundations of statistics and econometrics, covering random variables and probability distributions, dependence between random variables, and convergence.
Average tutor grade: 9.17 (2025/26); 9.1 (2024/25); 9.27 (2023/24); 9.23 (2022/23).

Macroeconomics for BSc. Econometrics and Operations Research
Undergraduate tutorial (6.5 ECTS). Introduces modern macroeconomic theory and policy, covering short-run fluctuations, medium-run equilibrium, and long-run growth, with applications to European and global economic policy.
Average tutor grade: 9.1 (2025/26); 9.05 (2024/25); 9.15 (2023/24).

Quantitative Methods 3 for BSc. International Business
Undergraduate skills training (4 ECTS). Applies inferential statistical tools, including t-tests, ANOVA, chi-square tests, and regression analysis, to real-world business case studies using SPSS.
Average tutor grade: 8.9 (2025/26); 8.8 (2024/25); 8.35 (2023/24).

Statistics for BSc. Business Analytics / Business Engineering
Undergraduate tutorial (6.5 / 5.0 ECTS). Introduces descriptive statistics, probability theory, and sampling as foundations for statistical inference, including hypothesis testing and regression analysis.
9.73 (Business Analytics, 2020/21); 9.37 (Business Engineering, 2020/21).

Quantitative Business (Statistics) for BSc. Economics and Business Economics (2022/23)
Undergraduate tutorial (6.5 ECTS). Extends first-year quantitative methods, applying mathematical and inferential statistical tools, including regression, ANOVA, and logistic regression, to business economics case studies using SPSS.
Tutors were not individually evaluated due to the course structure.

Thesis Supervision, BSc. and MSc. Econometrics and Operations Research
Topics include Bayesian Neural Networks for financial risk forecasting, econometric and machine-learning methods for Marketing Mix Modelling, and macroeconometric analysis of monetary policy and oil supply shocks.

Software

Creator and Maintainer	TransmissionChannelAnalysis.jl; TCA MATLAB Toolbox; HamiltonFilters.jl; FredMDQD.jl; BayesFlux.jl; BayesFluxR
Contributor	bigtime
Teaching Material	BigTime; VARs; Shell, Git, GitHub

Technical and Language Skills

Programming: C++, Julia, Matlab, Python, R, Stata
Data and Databases: large trade data sets (millions of observations); PySpark pipelines; SQL
Languages: German (native), English (fluent)

Referee Service

Journal of Computational and Graphical Statistics; Empirical Economics; Theory and Decision

References

Stephan Smeekes	*PhD advisor* Professor of Econometrics, Maastricht University `s.smeekes@maastrichtuniversity.nl`
Ines Wilms	*PhD advisor* Associate Professor, Maastricht University `i.wilms@maastrichtuniversity.nl`
Lenard Lieb	*PhD advisor* Assistant Professor, Maastricht University `l.lieb@maastrichtuniversity.nl`