

LUKAS HACK

hack@kof.ethz.ch ◇ +41 44 632 51 97 ◇ <https://lukas-hack.github.io/>

ETH Zürich ◇ Chair of Applied Macroeconomics

Leonhardstrasse 21 ◇ 8092 Zürich ◇ Switzerland

RESEARCH FIELDS

Macroeconomics, Monetary Economics, Public Finance

EMPLOYMENT

ETH Zürich - Post-Doctoral Researcher

Aug 2024 - present

EDUCATION

University of Mannheim - Economics, Ph.D.

Sep 2019 - July 2024

University of Vienna - Economics, M.Sc.

Oct 2018 - Oct 2019

University of Vienna - Economics, B.Sc.

Oct 2016 - Jul 2018

DHBW Ravensburg - Business & Hotel Management, B.A.

Oct 2013 - Sep 2016

RESEARCH

Identification of Systematic Monetary Policy, *joint with Klodiana Istrefi (Banque de France) and Matthias Meier (U Mannheim)*, revise and resubmit at ***Review of Economic Studies***

We propose a novel identification design to estimate the effects of systematic monetary policy on the propagation of macroeconomic shocks. The design combines (i) a time-varying measure of systematic monetary policy based on the historical composition of hawks and doves in the FOMC with (ii) an instrument that leverages the FOMC rotation of voting rights. We apply our design to government spending shocks. We find that a dovish FOMC supports the expansionary effects of higher spending by delaying policy rate hikes, leading to large fiscal multipliers. GDP does not expand when the FOMC is hawkish, but inflation expectations are contained.

The Systematic Origins of Monetary Policy Shocks, *joint with Klodiana Istrefi (Banque de France) and Matthias Meier (U Mannheim)*

Conventional strategies to identify monetary policy shocks rest on the implicit assumption that systematic monetary policy is constant over time. We formally show that these strategies do not isolate monetary policy shocks in an environment with time-varying systematic monetary policy. Instead, they are contaminated by systematic monetary policy and macroeconomic variables, leading to contamination bias in estimated impulse responses. Empirically, we show that Romer and Romer (2004) monetary policy shocks are indeed predictable by fluctuations in systematic monetary policy. Instead, we propose a new monetary policy shock that is orthogonal to systematic monetary policy. Our shock suggests U.S. monetary policy has shorter lags and stronger effects on inflation and output.

Understanding Firm Dynamics with Daily Data, *joint with Davud Rostam-Afschar (U Mannheim)*

How do firms respond to macroeconomic shocks? To study this question, we construct novel daily time series that measure firms' plans and expectations based on surveys from Germany. Daily variation allows us to estimate the short-run aggregate responses of firms in short samples. This allows us to analyze the post-pandemic inflation surge without relying on pre-pandemic data. We find that firms' plans, notably price-setting plans, respond within days to oil supply and monetary policy shocks but not to forward guidance shocks. The effects are especially strong for small and non-tradeable sector firms. Finally, expectations respond strongly and swiftly, but only to monetary policy.

Progressive Income Taxation and Inflation: The Macroeconomic Effects of Bracket Creep

Under progressive taxation, inflation drives up tax rates if the schedule is not adjusted accordingly, leading to bracket creep effects. I propose a non-parametric decomposition of changes in tax rates to measure the empirical importance

of bracket creep. Studying German administrative tax records, I show that bracket creep effects are of similar importance as discretionary tax changes. Bracket creep has decreased over time due to institutional changes, but the 2022 inflation surge led to a resurgence with sizeable bracket creep effects. Theoretically, I characterize the effects on labor supply and compute a theory-consistent measure of bracket creep — the indexation gap — that is used to discipline a New Keynesian model with incomplete markets. The model is used to study the propagation of inflationary shocks that partly propagate through bracket creep.

Transmission of Monetary Policy in a Currency Area with Heterogeneous Households, *joint with Hannes Tuieling (U Mannheim)*

Monetary policy has heterogeneous effects on real GDP and inflation across Euro Area member states. To investigate the underlying drivers we construct a two-region currency union model with idiosyncratic risk and cross-region household heterogeneity. The model matches household-level heterogeneity in homeownership rates, mortgage types, and the prevalence of hand-to-mouth households. These features account for 70% of the cross-region differences in GDP responses to monetary policy shocks. This is primarily driven by the interplay of demand amplification through hand-to-mouth households, and demand dampening through trade effects.

WORKSHOPS AND CONFERENCES

- 2024 NBER Monetary Economics Program Spring Meeting (Chicago), CEPR Annual Monetary Economics and Fluctuations Symposium (Gerzensee, scheduled), Barcelona Summer Forum (Barcelona), Workshop in Empirical Macroeconomics (Innsbruck), ZEW Public Finance conference (Mannheim, scheduled), IAAE Greece 2024 (Thessaloniki), 4th Sailing the Macro Workshop (Siracusa, scheduled), Pavia Macro Forum 2024 (Pavia, scheduled) Verein für Socialpolitik Jahrestagung (Berlin, scheduled)
- 2023 Midwest Macroeconomics Meetings (Clemson), Macro Seminar at TSE (Toulouse), RGS Doctoral Conference (Bochum), NBER Heterogeneous-Agent Macro Workshop (Boston), ifo GETTSIM Workshop (Munich), 54th Annual Conference of the Money, Macro and Finance Society (Portsmouth), CRC TR2 224 Retreat (Montabaur), CRC TR 224 Young Researcher Workshop (Montabaur)
- 2022 North America Summer Meeting of the ES (Miami), 4th QMUL Economics and Finance Workshop for PhD & Post-doctoral Students (London), 2nd Sailing the Macro Workshop (Ventotene), Macro Seminar at University Carlos III (Madrid), NSEF PhD and Postdoc Workshop (Naples), 9th CRC TR 224 Young Researchers Workshop (Bonn), Mannheim-Frankfurt PhD Workshop (Frankfurt), PhD EVS (online)

TEACHING

DHBW Ravensburg - Economic policy (B.A.), Instructor	<i>Spring 2018 - Present</i>
University of Mannheim - Public Finance (B.Sc.), TA for Eckhard Janeba	<i>Spring 2022 - 2024</i>
HWG Ludwigshafen - Economic policy (B.A.), Instructor	<i>Spring 2021</i>
University of Mannheim - Interm. Macroeconomics (B.Sc.), TA for Andreas Gulyas	<i>Fall 2020</i>

RESEARCH ASSISTANCE

University of Mannheim - RA for Matthias Meier	<i>2021</i>
University of Vienna - RA for Vienna Center for Experimental Economics	<i>2017-2019</i>

SCHOLARSHIPS AND PROFESSIONAL ACTIVITIES

Refereeing: Oxford Economic Papers, EAYE Annual Meeting

Member of CRC-TR 224 Bonn/Mannheim (C05), German Research Foundation (DFG) *2022 - Present*

Coordinator of the ENTER network (organization of more than 20 invited seminars) *2021- 2024*

Ph.D. scholarship, German Research Foundation (DFG) *2019-2021*

Appreciation award for the best master degree, Federal Ministry of Education (Austria) *2020*

OTHER

Contributed Code: Stata package *Poor Men's Parallel*

Software: Matlab, Stata, Python, R, VBA, SQL

Citizenship: German

REFERENCES

Prof. Klaus Adam
University of Mannheim
Department of Economics
adam@uni-mannheim.de
+49 621 181-1809

Prof. Eckhard Janeba
University of Mannheim
Department of Economics
janeba@uni-mannheim.de
+49 621 181-1795

Prof. Matthias Meier
University of Mannheim
Department of Economics
m.meier@uni-mannheim.de
+49 621 181-3430

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