

# Dr Moritz P. Schwarz

## Curriculum Vitae

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### Professional Experience

- Einstein International Postdoctoral Fellow**, Potsdam Institute for Climate Impact Research (PIK) & TU Berlin, Germany. 2023–  
o Research: econometric policy evaluation; macroeconomic forecasting (OSEM); climate damage estimation.  
o Teaching: PhD *Causal Inference*; contributions to MSc/BSc Environmental Economics.  
o Part-time due to concurrent Ministry of Finance role.
- Senior Climate Economist**, Federal Ministry of Finance, Austria. 2021–  
o Leading role in green budgeting framework and economic analysis; produced Austria's first empirical marginal abatement cost curve; macro-forecasting.  
o EU Issue Lead on Long-Term Finance (UNFCCC); CBAM negotiation coordinator; negotiator on domestic climate law.
- Associate**, University of Victoria, Canada. 2023–2025  
SSHRC grant on extreme weather impacts in developing countries
- Associate**, UNIVERSITY OF OXFORD, UK. 2023 –  
Institute for New Economic Thinking.
- External Adviser**, MCKINSEY & CO., UK/USA. Summer 2021
- Research Consultant**, COLUMBIA UNIVERSITY, NEW YORK, USA. 2020–2021
- Researcher / Associate**, Climate Econometrics, Univ. of Oxford, UK. 2017–  
Roles over time: Research Assistant, Doctoral Researcher, Associate Researcher (current).
- Austrian EU Presidency Coordinator**, FEDERAL MINISTRY OF SUSTAINABILITY AND TOURISM, Austria. 2017 – 2019

### Education

- DPhil (PhD)**, University of Oxford, UK. 2019–2023  
Dissertation: *What Actually Happened? Novel Econometric Methods to Improve Estimates of Climate Impacts and Policies*.  
Supervisors: Prof Sir David Hendry, Prof Cameron Hepburn. Clarendon Scholar.  
Affiliated with Climate Econometrics at Nuffield College and INET Oxford.
- MSc**, University of Oxford, UK. 2016–2017  
Environmental Change & Management. Graduated with Distinction.
- BSc**, London School of Economics, UK. 2013–2016  
Environmental Policy with Economics. First Class Honours.

### Research Interests

Environmental economics; causal and reverse causal policy evaluation; time-series and panel econometrics; macro-forecasting; climate & biodiversity policy.

### References

- Prof Sir David Hendry — Nuffield College, Oxford david.hendry@nuffield.ox.ac.uk  
Prof Cameron Hepburn — University of Oxford cameron.hepburn@smithschool.ox.ac.uk  
Prof Felix Pretis — University of Victoria fpretis@uvic.ca  
Prof Linus Mattauch — TU Berlin linus.mattauch@tu-berlin.de

## Research and Publications

### *Job Market Paper*

JMP

Pretis, F., and **Schwarz, M.** (Working Paper). Discovering what mattered: Answering reverse causal questions by detecting unknown treatment assignment and timing as breaks in panel models. In preparation for submission to *The Econometrics Journal*

### *Peer-review (incl. R&R)*

**Schwarz, M.**, Kurle, J., Pretis, F., Martinez, A., and Harper, G. (R&R at *International Journal of Forecasting*). An Open-Source Empirical Macro (OSEM) Model for Economic and Emission Forecasting.

2024

Mark, E., Rafaty, R., and **Schwarz, M.** (2024). Spatial-temporal dynamics of employment shocks in declining coal mining regions and potentialities of the 'just transition'. *Energy Policy* 195: 114338.

2024

Stchemesser, A., Koch, N., Mark, E., Pretis, F., Ritter, N., **Schwarz, M.**, et al. (2024). Climate policies that achieved major emission reductions: Global evidence from two decades. *Science* 385(6711): 884–892.

Selected media coverage: NYT, FT, CNN, WSJ, Economist, Le Monde, Spiegel, ORF.

2024

Jiao, X., Pretis, F., and **Schwarz, M.** (2024). Testing for Coefficient Distortion due to Outliers with an Application to the Economic Impacts of Climate Change. *Journal of Econometrics* 239(1).

2023

Thalheimer, L., **Schwarz, M.**, and Pretis, F. (2023). Large weather and conflict effects on internal displacement in Somalia with little evidence of feedback onto conflict. *Global Environmental Change*.

2022

Koch, N., Naumann, L., Pretis, F., Ritter, N., and **Schwarz, M.** (2022). Attributing agnostically detected large reductions in road CO<sub>2</sub> emissions to policy mixes. *Nature Energy* 7: 844–853.

Selected media coverage: FT Sustainable Views, ORF, DER STANDARD, Salzburger Nachrichten.

2022

Scheer, A., Hopkins, D., **Schwarz, M.**, and Caldecott, B. (2022). Stranded labour in Alberta, Canada: A mixed methods study on the employment impacts of oil price in a resource-rich province. *Climate Policy* 22(8): 1016–1032.

2022

Benoit, P., Clarke, A., **Schwarz, M.**, and Dibley, A. (2022). Decarbonization in state-owned power companies: Lessons from a comparative analysis. *Journal of Cleaner Production* 355: 131796.

2020

Cohen, F., **Schwarz, M.**, Li, S., Lu, Y., and Jani, A. (2020). The challenge of using epidemiological case count data: The example of confirmed COVID-19 cases and the weather. *Environmental and Resource Economics: Perspectives*.

2018

Pretis, F., **Schwarz, M.**, Tang, K., Haustein, K., and Allen, M. R. (2018). Uncertain impacts on economic growth when stabilizing global temperatures at 1.5°C or 2°C warming. *Philosophical Transactions of the Royal Society A* 376(2119): 20160460.

Selected media coverage: Carbon Brief, The Independent, Daily Mail, El País

## *Working Papers & Ongoing Research*

Schöngart, S., **Schwarz, M.**, Schwaab, J., Pretis, F., Pfleiderer, P., and Schleußner, C.-F. (Working Paper). Temporary warming, lasting losses: Economic damages from climate overshoot may be irreversible within this century.

**Schwarz, M.**, and Pretis, F. (Working Paper). An empirical climate damage function accounting for climate extremes and adaptation. SSRN 4022690.

**Schwarz, M.** statlAM: Building a statistical emulator for Integrated Assessment Models.

## *Policy Papers and Reports*

2025

Delgado, J., and **Schwarz, M.** (2025). Rückblick auf die 29. Weltklimakonferenz (COP29). *RWK – Reporting und Wirtschaft kompakt* 1/2025. Linde Verlag.

2025

Castle, J., Mark, E., Hendry, D. F., **Schwarz, M.**, and Pretis, F. (2025). Net zero: Strategy and tactics. *Newsletter of the Royal Economic Society*, Issue 208.

2024

Delgado, J., Haider, K., Lamprecht-Pühra, I., and **Schwarz, M.** (2024). Tracking von Klima- und Umweltschutzauszahlungen – der Bundesansatz. *SWK – Steuer und Wirtschaftskartei* 99(6). Linde Verlag.

2022

Schwarz, M., Benoit, P., and Clark, A. (2022). Decarbonising state-owned power companies: A framework for applying policy actions. Smith School Working Paper No. 23-01.

2020

Cohen, F., Ives, M., Srivastav, S., **Schwarz, M.**, Lu, Y., Mealy, P., Bento Maffei De Souza, P., Jackson, P., and Hepburn, C. (2020). Emerging markets and self-interested climate action. A report prepared for Pictet AM by the Oxford Smith School of Enterprise and the Environment.

2020

Hepburn, C., and **Schwarz, M.** (2020). Climate change: Answers to common questions. Oxford Smith School of Enterprise and the Environment. A report prepared for Pictet AM.

2019

Mattauch, L., Creutzig, F., Franks, M., Funke, F., Jakob, M., Sager, L., **Schwarz, M.**, et al. (2019). Antworten auf zentrale Fragen zur Einführung von CO<sub>2</sub>-Preisen. *Diskussionsbeiträge der Scientists for Future* 2: 10.5281/zenodo.3371150.

2017

Mattauch, L., Roesti, M., **Schwarz, M.**, and Siegmeier, J. (2017). Wirtschaftswachstum und Klimawandel: Chancen und Herausforderungen auf dem Weg zur klimafreundlichen Gesellschaft. *Wirtschaftspolitische Blätter* 3/2017.

## Awards & Grants

- 2024: Best Paper Award for Junior Scholars, TU Berlin (Faculty VII).  
2023: Einstein International Postdoctoral Fellowship, TU Berlin (~EUR 339k).  
2023: British Academy Postdoctoral Fellowship offer (GBP 342k) – declined in favor of Einstein Fellowship.  
2021: Insight Development Grant (Canada), co-recipient (CAD 60k).  
2019–2023: Clarendon Scholarship, University of Oxford (~GBP 100k).  
2017: ECI MSc Prize for Top Overall Performance & Best Dissertation, University of Oxford.  
2016: George & Hilda Ormsby Prize (Best Undergraduate Dissertation), LSE.

## Teaching

- TU Berlin:** Lecturer: Causal Inference (PhD level; design & instruction). Contributed to Environmental Economics teaching (MSc/BSc level). Co-supervision of two BSc theses and one MSc thesis.
- University of Oxford:** Lecturer: "New Environmental Economic Thinking" (MSc); TA: Environmental Economics (MSc), Quantitative Methods (MPhil). Co-supervision of two MSc thesis (both were subsequently published).
- University of Nottingham:** Designed & delivered R/tidyverse econometrics training (multi-day).

## Policy & Outreach (selected)

**Domestic Policy:** Green budgeting, empirical MAC curve development, macro-forecasting. Research results featured in Austrian National Energy and Climate Plan. Policy exchanges with institutions like incl. German Chancellery, MoF and Economics Ministry; Austrian Environment Agency; Climate Neutrality Forum (Brussels).

**EU/UNFCCC:** Issue Lead for Long-Term Finance; CBAM technical coordinator for negotiations.

**Coalition of Finance Ministers for Climate Action:** Report on effectiveness of climate policies using results from the Science paper. Participation in the Green Macro Modelling Initiative with OSEM to improve policy modelling for policy-makers.

**IPCC citations:** Research prominently featured in SR1.5 and AR6.

**Media:** Coverage in major international outlets for multiple papers.

## Presentations (selected)

**Conferences:** EAERE (various years); Dynamic Econometrics; VfS; IIPF; Int. Symposium on Forecasting; EGU (various years); Econometric Models of Climate Change (various years); NOeG (various years).

**Invited Economics Seminars:** CEU Vienna; IIIEEE Lund; University of Turin.

## Languages

German (native); English (C2); French (conversational).