

Asjad Naqvi, Ph.D.

ASSISTANT PROFESSOR · INSTITUTE FOR ECOLOGICAL ECONOMICS, VIENNA UNIVERSITY OF ECONOMICS AND BUSINESS (WU)

Welthandelsplatz 1, Vienna 1020, Austria

☎ (+43) 680 2245 790 | ✉ snaqvi@wu.ac.at | 🏠 asjadnaqvi.github.io | 📄 asjadnaqvi | 📺 asjadnaqvi | 🐦 asjadnaqvi | 🎓 Google scholar

Education

Vienna University of Economics and Business

HABILITATION IN ECONOMICS (VWL)

Vienna, Austria

Oct. 2020

New School for Social Research

PH.D. IN ECONOMICS

New York, USA

Sep. 2007 - May. 2012

Lahore University of Management Sciences (LUMS)

MSC. IN ECONOMICS

Lahore, Pakistan

Sep. 2003 - Jun. 2004

University of London External Programme

BSc. (HONS.) IN ECONOMICS AND MANAGEMENT

Lahore, Pakistan

Sep. 1998 - Jun. 2001

Work Experience

Vienna University of Economics and Business (WU)

ASSISTANT PROFESSOR

Vienna, Austria

Nov. 2020 - present

International Institute for Applied Systems Analysis (IIASA)

RESEARCH SCHOLAR

Laxenburg, Austria

Jan. 2017 - present

Vienna University of Economics and Business (WU)

ASSISTANT PROFESSOR

Vienna, Austria

Oct. 2013 - Nov. 2019

Center for Economic Research Pakistan (CERP)

RESEARCH DIRECTOR

Lahore, Pakistan

Sep. 2011 - Aug. 2013

Lahore University of Management Sciences (LUMS)

RESEARCH ASSOCIATE

Lahore, Pakistan

Jul. 2004 - Jun. 2007

Publications

Peer-reviewed journals

- **Naqvi, A.**, Monasterolo, I. (2021). Natural disasters, cascading losses, and economic complexity: A multi-layer behavioral network approach. *Nature Scientific Reports*. DOI: <https://doi.org/10.1038/s41598-021-99343-4>
- **Naqvi, A.** (2021). Decoupling trends of emissions across EU regions and the role of environmental policies. *Journal of Cleaner Production*. DOI: <https://doi.org/10.1016/j.jclepro.2021.129130>
- Dalstein, F., **Naqvi, A.** (2021). 21st Century Water Withdrawal Decoupling: A Pathway to a more Water-wise World? *Under review, Water Resource and Economics*.
- Dunz, N., **Naqvi, A.**, Monasterolo, I. (2021). Climate Transition Risk, Climate Sentiments, and Financial Stability in a Stock-Flow Consistent approach. *Journal of Financial Stability*. DOI: <https://doi.org/10.1016/j.jfs.2021.100872>.
- **Naqvi, A.**, Hochrainer-Stigler, S., Gaupp, F. (2020). The Risk and Consequences of Multiple Breadbasket Failures: An Integrated Copula and Multi-layer Agent-Based Modelling Approach. *OR Spectrum*. DOI: <https://doi.org/10.1007/s00291-020-00574-0>.
- **Naqvi, A.** (2021). COVID-19 European Regional Tracker. *Nature Scientific Data*. DOI: <https://doi.org/10.1038/s41597-021-00950-7>.
- Mochizuki, J., **Naqvi, A.** (2019). Reflecting Disaster Risk in Development Indicators. *Sustainability* 11(4) 996. DOI: <https://doi.org/10.3390/su11040996>.
- de Schutter, L., Bruckner, M., Guljum, S., Häyhä, T., **Naqvi, A.**, Omann, I., Stagl, S. (2019). Sustainable bioeconomy transitions through the lens of coupled social-ecological systems. *Sustainability* 11(20), 5705. DOI: <https://doi.org/10.3390/su11205705>.
- **Naqvi, A.**, Stockhammer, E. (2018). Directed Technological Change in a Post-Keynesian Ecological Macromodel. *Ecological Economics* 154 (164–188). DOI: <https://doi.org/10.1016/j.ecolecon.2018.07.008>.
- Bennett, D., **Naqvi, A.**, Schmidt, W-P (2018). Learning, Hygiene, and Traditional Medicine. *The Economic Journal* 128 (612). DOI: <https://doi.org/10.1111/econj.12549>.
- **Naqvi, A.** (2017). Geo-simulations as a policy toolkit for natural disasters. *World Development* 99, 395–418, DOI: <https://doi.org/10.1016/j.worlddev.2017.05.015>.
- **Naqvi, A.**, Zwickl, K. (2017). Fifty Shades of Green: Revisiting Decoupling by Economic Sectors and Air Pollutant. *Ecological Economics* 133, 111–126. DOI: <https://doi.org/10.1016/j.ecolecon.2016.09.017>.
- Bennett, D., **Naqvi, A.**, Schmidt W-P (2015). Constraints on Compliance and the Impact of Health Information in Rural Pakistan. *Health Economics* 24(9), 1050–1064. DOI: <https://doi.org/10.1002/hec.3193>.
- **Naqvi, A.**, Rehm, M. (2014). A Multi-Agent Model of a Low Income Economy: Simulating the Distributional Effects of Natural Disasters. *Journal of Economic Interaction and Coordination*, 9(2) 257–309. DOI: <https://doi.org/10.1007/s11403-014-0137-1>.

Working papers, book chapters, reports

- **Naqvi, A.**, Onaran, O., and Dunz, N. (2022). Distributional impacts of disaster-risk financing in a structural gap model: Application to Madagascar. *Draft under preparation*.
- Tanaka, H., Dunz, N., Yoshioka, N., Mochizuki, J., **Naqvi, A.** (2021). Building Back Better in Small Island Developing States in the Pacific: Initial insights from the BinD Model on disaster risk management policy options in Fiji. *Draft in revision for an Asian Development Bank report*.
- **Naqvi, A.**, Peer, S., Müller, J., Straub, M. (2021). Accessibility, Environmental, and Socioeconomic Impacts of Zone-based Shared, Electric, Autonomous Vehicles (SAEVs): A case study of Vienna. *Draft under preparation*.
- Peisker, J., **Naqvi, A.** (2021). Distributional impact of flooding across European regions and sectors. *Draft under preparation for submission*.
- Cheema, A., **Naqvi, A.**, Naseer, F., Siddiqui, B. (2021). Understanding the historic land institutions, inequality, and long-run development in a Regression Discontinuity Design. *Working paper*
- Dunz, N., **Naqvi, A.**, Mochizuki, J. (2021). Developing an integrated catastrophe-macroeconomic modeling framework (the BinD model). *Report under preparation with OPRI (Japan) and the World Bank*.
- Müller, J., Straub, M., **Naqvi, A.**, Richter, G., Peer, S., Rudloff, C. (2021) MATSim Model Vienna: Analyzing the Socioeconomic Impacts for Different Fleet Sizes and Pricing Schemes of Shared Autonomous Electric Vehicles. *Paper presented at the Transportation Research Board (TRB) 2021 Annual Meeting*.
- Zwickl, K., Laurent, E., **Naqvi, A.** (2021). Air (Ine)Quality in the EU. *Draft under preparation for submission*.
- Zwickl, K., Milkin, X., **Naqvi, A.** (2021). Sociodemographic disparities in ambient particulate matter exposure in Austria. *Draft under preparation for submission*.
- Brüning, L., **Naqvi, A.** (2018). Automation in an aging EU society: Effects of demographic and technological change on pensions in a Stock-Flow Consistent Framework. *Draft*.
- Rehm, M., **Naqvi, A.**, Hofmann, J. (2018). Class-less? Wealth, Income, and the Crisis in Europe. *Working paper, Arbeiterkammer (AK) Wien*.
- **Naqvi, A.**, Rehm, M. (2017). Chapter 13: Agent-based simulations as an early warning system for natural disasters. In book, Theory and Method of Evolutionary Political Economy: A Cyprus Symposium, eds. Hardy Hanappi, Savvas Katsikides, Manuel Scholz-Wäckerle, pp.214–235. Routledge, UK.
- Jackson, T., Victor, P., **Naqvi, A.** (2015). Towards a Stock-Flow Consistent Ecological Macroeconomics, ESRC Passage Working paper Series 15-02.
- **Naqvi, A.** (2015). Modeling Growth, Distributions and the Environment in a Stock-flow consistent Framework. WWWforEurope Policy Paper 18.
- **Naqvi, A.**, Rehm, M. (2014). Simulating Natural Disasters - A Complex Systems Framework. 2014 IEEE Conference Proceedings on Computational Intelligence for Financial Engineering & Economics (CIFER), 27–28 March, London, UK. DOI: 10.1109/CIFER.2014.6924103

Grants

Distributional effects of climate shocks – A macroeconomic perspective (DiOD)

ÖNB JUBILÄUMSFOND

2021 – 2023

Scaling-up green finance to achieve the climate and energy targets: An assessment of macro-financial opportunities and challenges for Austria (GREENFIN)

AUSTRIAN CLIMATE RESEARCH PROGRAM (ACRP)

2019 – 2021

An empirical analysis of environmental inequality in the EU (EnvINEQEU)

AUSTRIAN SCIENCE FUND (FWF)

2019 – 2022

Simulating the environmental and socio-economic effects of shared autonomous electric vehicles: the case of Vienna (SIMSAEV)

AUSTRIAN CLIMATE RESEARCH PROGRAM (ACRP)

2018 – 2021

Possibilities of consciously shaping mobility through the application of the principle of sufficiency in the Austrian context (MOBALANCE)

FFG (AUSTRIA)

2018 – 2019

Sustainable Growth in the Presence of Complex Financial Markets

ÖNB JUBILÄUMSFOND

2017 – 2019

Internal Displacement Risk (IDR)

IDMC (SWITZERLAND), USAID-OFDA (USA)

2017 – 2018

Pathways towards a Prosperous and Just EU Bioeconomy (BIOWAY)

ÖNB JUBILÄUMSFOND

2016 – 2018

Microbe Literacy Health Initiative (MLI)

UBS OPTIMUS FOUNDATION (SWITZERLAND)

2013 – 2016

Building Capacity to use Research Evidence (BCURE)

DEPARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID) (UK)

2014 – 2019

Centers for Learning on Evaluation and Results (The CLEAR Initiative)

INDEPENDENT EVALUATION GROUP (IEG), WORLD BANK (USA)

2012 – 2016

Teaching

Vienna University of Economics and Business (WU)

Vienna, Austria

2014 – 2022

- Zukunftsfähiges Wirtschaften II (ZuWi II)
- Environment and Economy II: Causal inference methods
- Environmental Change and Policy II (3 semesters)
- Growth, Well-being, and Development (2 semesters)
- Bridging Course: Economics (2 semesters)

New School for Social Research

New York, USA

2007 – 2010

COMPUTER LABS FOR VARIOUS PHD COURSES

- Stata, Mathematica, Netlogo

Lahore University of Management Sciences (LUMS)

Lahore, Pakistan

2005 – 2006

LUMS MASTERS' IN ECONOMICS PROGRAM

- Development Economics
- Econometrics I

University College Lahore

Lahore, Pakistan

2001 – 2004

UNIVERSITY OF LONDON EXTERNAL PROGRAM

- Mathematics for Economists
- Advanced Mathematics for Economists
- Quantitative Methods
- Statistics I and II

Supervision

MASTER'S THESES, WU VIENNA

- 2020 **21st Century Water Withdrawal Decoupling: A Pathway to a more Water-wise World?**
- 2019 **The Macroeconomic Impacts of Floods across European Regions and Sectors**
- 2018 **Automation in an aging EU society: Effects of demographic- and technological change on pensions in a Stock-Flow Consistent Framework**
- 2017 **Drivers and barriers: what institutional factors affect the operationalization of the Circular Economy? A conceptual framework and its application: a case study of the Netherlands**
- 2016 **Environmental Policy and Technical Change in a North-South Stock-Flow Consistent Model**

PHD STUDENTS IN THE YSSP, IIASA

- 2019 **A stock-flow consistent model assessment of the opportunities and risks of development bank's efforts of closing the climate-finance gap** (WU, Vienna)
- 2018 **Investigating climate adaptation in semi-arid regions as complex adaptive social-ecological systems: An integrated modeling approach** (Chinese Academy of Sciences, China)
- 2018 **Skills resilient to impending automation: The future of work** (Pardee RAND Graduate school, USA)
- 2017 **Vulnerability is dynamic: Approaching the emerging challenges of coastal tourism** (Wageningen University, Netherlands)

Recent conferences

- 2021 **Keynote** Stata UK conference *London, England*
- Modeling disasters impacts, cascading losses and economic complexity** UN OCHA *Geneva, Switzerland*
- 2020 **Environmental Inequality in Austria: Implications for COVID-19** COVID-19 Future Operations Platform *Vienna, Austria*
- 2019 **Coupled climate-ecology-economy modeling and model hierarchies** Institut Henri Poincare *Paris, France*
- Annual Conference of the Gesellschaft für Regional Forschung (GfR)** European Regional Science Association (ERSA) *Matrei in Osttirol, Austria*
- 20th Annual Austrian Climate Center meeting (Klimatag)** Climate Change Center Austria (CCCA) *Vienna, Austria*
- 2018 **Annual Conference** European Association Evolutionary Political Economy (EAEPE) *Nice, France*
- Knowledge Systems for Sustainability Collaborative (KSS)** Climate-KIC, European Commission *Trento, Italy*
- Annual Conference of the Gesellschaft für Regional Forschung (GfR)** European Regional Science Association (ERSA) *Innsbruck, Austria*
- Uncovering the hidden cost of internal displacement** Internal Displacement Monitoring Cell (IDMC) *Geneva, Switzerland*
- 2017 **Annual Conference** European Association Evolutionary Political Economy (EAEPE) *Budapest, Hungary*
- Instructor on Ecological Stock-flow Consistent (SFC) macromodels** FMM Summer School *Berlin, Germany*
- European Society for Ecological Economics (ESEE)** *Budapest Hungary*
- Annual Conference** Gesellschaft für Regional Forschung (GfR) European Regional Science Association (ERSA) *Spital am Phyrren, Austria*

Miscellaneous

Reviewing activities

- **Peer-reviewed journals:** Nature Climate Change, Nature Human Behavior, Climate Policy, Climatic Change, Journal of Financial Stability, Journal of Cleaner Production, Ecological Economics, International Journal of Disaster Risk Reduction, Regional Environmental Change, Journal of Evolutionary Economics, Environmental Economics and Policy Studies, European Sociological Review
- **Research proposals:** Österreichische Nationalbanks Jubiläumsfonds (ÖNB, Austria), Bundesministerium für Bildung und Forschung (BMBF, Germany)

Data and code (<https://github.com/asjadnaqvi>)

- Notes on Diff-in-diff literature: <https://github.com/asjadnaqvi/DiD>
- Co-authored Stata package “drdid” (ssc install drdid) based on Sant’Anna and Zhao (2020).
- Authored Stata package “schemepack” (ssc install schemepack) which provides a suite of ready-to-use-Stata schemes.
- The Stata Guide on Medium: <https://medium.com/the-stata-guide>
- COVID-19 European Regional Tracker: <https://github.com/asjadnaqvi/COVID19-European-Regional-Tracker>
- COVID-19 Austria Tracker: <https://github.com/asjadnaqvi/Austria-COVID-19-Tracker>
- COVID-19: Visualizing regional socioeconomic indicators for Europe: <https://covid19.iiasa.ac.at/interactive/>

Skills

- **Languages:** English (High proficiency), German (Certification: ÖIF B1, ÖSD B1, Courses: B2), Urdu (Native)
- **Computer languages:** Proficient in Stata, QGIS, ArcGIS, NetLogo, Mathematica, Markdown, LaTeX.
Working knowledge of R, MATLAB, Python, Ruby, C++, JavaScript.

Awards

- Best Poster Award at the ISEE Conference, Budapest, Hungary Jun. 2017
- Eduard-März Prize for the best paper at the AK Young Economists Conference (Austria) Oct. 2014
- IIASA Young Scientist Summer Program (YSSP) 2012 Summer 2012
- Fulbright Scholarship 2007 – 2011
- Winner of the 2006 Stockholm Challenge for RISEPAK 2006