

List of Projects

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Genetic innovation, intermediate goods and energy prices in an agent-based model

Anniversary Fund of the Oesterreichische Nationalbank

March 2023 - August 2025

Agent-based models have been receiving ever more attention in recent years. Especially since the crisis of 2008, there have been calls for new research tools. Agent-based models are an interesting option: they allow study of the behaviour of heterogeneous agents and the effects of such heterogeneity on the total economy. We propose introducing three novel extensions to a state-of-the-art agent-based model: First, we allow for rich interactions between industries by incorporating intermediate goods into the production process. Secondly, the model is extended to enable a new way to model technological change (“genetic optimisation”). Thirdly, we propose to account for the biophysical dimension by including energy usage as a factor of production.

Fiscal policies in Europe III.

Austrian Chamber of Labour

January 2021 - November 2022

In this project, we assess fiscal policies and their macroeconomic effects in the European Union, and pay particular attention to Austrian fiscal policy in the European context. Our research is primarily based on using quantitative data and methods, which allows us to take a comparative, European-wide perspective. In three sub-projects, we analysed the situation of Austrian municipalities that are confronted with increasing investment needs and diminishing revenues in the context of the Covid-19 crisis (sub-project 1), European fiscal policies before and after the pandemic (sub-project 2), and explored the idea of a permanent EU investment fund for climate and energy investment in the context of the energy crisis, climate change and the EU’s fiscal rules (sub-project 3).