MW86 Seminar: Empirical studies of innovation, patents, and innovation policy

Winter term 2025/2026

Prof. Dr. Joel Stiebale

Content: In this seminar, we will discuss selected empirical studies on innovation and patents. We will focus on policy relevant questions. Examples include the effects of patent protection for investment inventives,, the impact of funding and tax incentives for research and development, the role of competition policy for innovation and the type of innovation that is induced by different market environments. Due to the focus on empirical studies, it is expected that students have completed at least one graduate level econometrics module such as MV04 Econometrics or have equivalent knowledge of econometric methods. This course is complementary to other modules in the area of econometrics and empirical economics. Attending additional modules in this area (e.g. MW64 or MW66) before or while taking this course is advantageous, but this is not a prerequisite. Topics and research papers are listed on the next page. Besides the main reading, it is expected that students cite and evaluate additional literature and relevant cases. Suggestions for alternative projects that are related to the topic of the seminar are welcome. A list of topics and a reading list can be found on the next page.

Prerequisites : MV04 (or equivalent).

Target group: MSc Economics, MSc VWL, MSc BWL

Examination : Presentation and term paper

Dates:

- Introduction: during week Oct 20- Oct 24.

- Deadline for submission of papers: 12 January

- Presentations: block seminar towards the end of the semester

(in person, probably during week Jan 26 – Jan 30)

Topics for seminar papers and inital reading:

1. Public funding of innovation in pharmaceuticals and biotech:

Azoulay, P., Graff Zivin, J. S., Li, D., & Sampat, B. N. (2019). Public R&D investments and private-sector patenting: evidence from NIH funding rules. Review of Economic Studies, 86(1), 117-152.

2. R&D subsidies:

Bronzini, R., & Iachini, E. (2014). Are incentives for R&D effective? Evidence from a regression discontinuity approach. American Economic Journal: economic policy, 6(4), 100-134.

3. Tax incentives for research & development:

Agrawal, A., Rosell, C., & Simcoe, T. (2020). Tax credits and small firm R&D spending. American Economic Journal: Economic Policy, 12(2), 1-21.

4. Complementarities among different innovation policy tools:

Pless, J. (2023). Are complementary policies substitutes? Evidence from R&D subsidies in the UK. American Economic Journal: Economic Policy, forthcoming.

5. Patent protection and incentives to innovate:

Arque-Castells, P. and Fons-Rosen, C. (2024). Does a stronger patent system stimulate more R&D? Yes, in firms that rely on patents as an appropriation mechanism. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4061147

6. Innovation and the business cycle:

Manso, G., B. Balsmeier, and L. Fleming (2021). Heterogeneous innovation over the business cycle. Review of Economics and Statistics 105 (5): 1224–1236.

7. Patents and follow-on innovation:

Galasso, A., & Schankerman, M. (2015). Patents and cumulative innovation: Causal evidence from the courts. Quarterly Journal of Economics, 130(1), 317-369.

8. Competition, public funding, and the direction of innovation:

Bryan, K. A., Lemus, J., & Marshall, G. (2022). R&D competition and the direction of innovation. International Journal of Industrial Organization, 82, 102841.

9. Merger policy and innovation:

Morzenti, G. (2023), Antitrust Policy and Innovation, working paper.

10. Big tech acquisitions, startups, and innovation:

Gugler, K., Szücs, F., & Wohak, U. (2025). Start-up acquisitions, venture capital and innovation: A comparative study of Google, Apple, Facebook, Amazon and Microsoft. International Journal of Industrial Organization, 99, 103148.

Background reading:

Bryan, K. and Williams, H. Innovation: Market Failures and Public Policies, in *Handbook of Industrial Organization, Volume 5*