

Research seminar (MW86)  
Summer semester 2023  
Dr. Apoorva Gupta

### **Seminar: Economics of Innovation**

Content: This course provides an introduction to the Economics of Innovation. A large literature shows that innovation is the key driver of economic growth, although notable market failures prevent firms from optimally investing in R&D. While market structure and macro-environment can alter the incentives for innovation, governments can adopt several tools such as R&D subsidies, intellectual property rights, and grants to incentivise firms to innovate. The organisation of innovative activities within firms further has an effect on their innovative efficiency. This course will look at the empirical and theoretical research in these topics.

A list of topics and main reference readings is proposed below. Students are expected to make a presentation and subsequently write a term paper on a topic of their choice, both in **English**. Besides the main reading, students are expected to cite and evaluate additional relevant literature. Suggestions for alternative projects that are related to the topic of the seminar are welcome.

Target group: MSc VWL / MSc BWL  
SWS/Credit points: 2 SWS / 4 ECTS  
Maximum number of students: 15  
Examination: 5000 words essay and presentation

#### Grading:

20 min Presentation: 30%  
Essay: 60%  
Class participation: 10%

### **Why is investment in innovation important?**

#### **1) Measuring the importance of technological innovation for economic growth**

Kogan, Leonid, Dimitris Papanikolaou, Amit Seru, and Noah Stoffman. "Technological innovation, resource allocation, and growth." *The Quarterly Journal of Economics* 132, no. 2 (2017): 665-712.

#### **2) Social returns of research and development**

Bloom, Nicholas, Mark Schankerman, and John Van Reenen. "Identifying technology spillovers and product market rivalry." *Econometrica* 81, no. 4 (2013): 1347-1393.

Arora, A., Belenzon, S., & Sheer, L. (2021). Knowledge spillovers and corporate investment in scientific research. *American Economic Review*, 111(3), 871-98.

## **Market environment and innovation**

### **3) Competition and innovation**

Aghion, P., Bloom, N., Blundell, R., Griffith, R., & Howitt, P. (2005). Competition and innovation: An inverted-U relationship. *The Quarterly Journal of Economics*, 120(2), 701-728.

Poegel, F. (2022). Competition and Innovation: The Breakup of IG Farben. *Available at SSRN*.

### **4) Business cycle and innovation**

Manso, G., Balsmeier, B., & Fleming, L. (2021). Heterogeneous innovation over the business cycle. *The Review of Economics and Statistics*, 1-50.

## **Innovation policies**

Bloom, Nicholas, John Van Reenen, and Heidi Williams (2019) "A toolkit of policies to promote innovation" *Journal of Economic Perspectives* 33 (3): 163-84

### **5) R&D tax credits**

Ivus, O., Jose, M., & Sharma, R. (2021). R&D tax credit and innovation: Evidence from private firms in India. *Research Policy*, 50(1), 104128.

Dechezleprêtre, A., Einiö, E., Martin, R., Nguyen, K. T., & Van Reenen, J. (2016). *Do tax incentives for research increase firm innovation? An RD design for R&D* (No. w22405). National Bureau of Economic Research.

### **6) Intellectual property rights**

Boldrin, Michele and David K. Levine. 2013. "The Case Against Patents." *Journal of Economic Perspectives* 27 (1): 3–22.

Budish, E., Roin, B. N., & Williams, H. (2016). Patents and research investments: Assessing the empirical evidence. *American Economic Review*, 106(5), 183-187.

Moser, P. (2005). How do patent laws influence innovation? Evidence from nineteenth-century world's fairs. *American economic review*, 95(4), 1214-1236.

## **7) Research Grants**

Azoulay, Pierre, Joshua S. Graff Zivin, Danielle Li, and Bhaven N. Sampat (2019) "Public R&D investments and private-sector patenting: Evidence from NIH funding rules," *Review of Economic Studies* 86(1): 117–52

## **Organisation of innovation**

### **8) Employee contracts**

Azoulay, P., Graff Zivin, J.S. & Manso, G. (2011): Incentives and creativity: Evidence from the academic life sciences. *RAND Journal of Economics*, 42, p. 527-554

### **9) Collaboration/Teams**

Jaravel, X., Petkova, N., & Bell, A. (2018). Team-specific capital and innovation. *American Economic Review*, 108(4-5), 1034-1073.

Catalini, C. (2018). Microgeography and the direction of inventive activity. *Management Science*, 64(9), 4348-4364.

### **10) Centralisation**

Bilir, L. K., & Morales, E. (2020). Innovation in the global firm. *Journal of Political Economy*, 128(4), 1566-1625.

Stiebale, J. (2016). Cross-border M&As and innovative activity of acquiring and target firms. *Journal of International Economics*, 99, 1-15.