LEHRSTUHL FÜR VOLKSWIRTSCHAFTSLEHRE IV – MIKROÖKONOMIE –

Prof. Dr. Stefan Napel

Seminar on Game Theory WS 2025/26

Game Theory in Business Practice

Lecturers

Dr. Alexander Mayer (Chair VWL IV)
Maximilian Wald (Business consultant and negotiation expert)

Objective and Target Group

The seminar is targeted at Bachelor's students of *Economics, Internationale Wirtschaft & Entwicklung* and *Philosophy & Economics* who are interested in the application of game theory to the analysis of business decisions.

The purpose of the seminar is to highlight the importance of strategic decision-making in business practice. Although good strategic thinking remains an art, its foundations consists of simple basic principles from the science of strategy: game theory. The seminar will introduce many of those principles and apply them in case studies to real business decisions, from analysing Google's ad auctions to Tesla's decision to make its patents publicly available.

Dates and Deadlines

- A short introduction to the available topics will be given on August 08, 2025 at 12:30h via Zoom (please click here).
- Four lecture-based sessions (20.10., 27.10., 03.11., and 10.11.25 from 10-12h) will introduce the basic knowledge of game theory required for successful seminar participation. We will offer a short optional exam after the lectures (see below for details).
- All student presentations will be blocked on November 27 and November 28, 2025. Presenters are required to send their close-to-final presentation drafts to both instructors at least seven days before the seminar session.
- Seminar papers must be handed in until March 31, 2026.

Assessment

- Presentation and active participation
- Seminar paper of approx. 4000 words OR
- Seminar paper of approx. 2000 words and participation in 45 min. exam

The final grade will be composed of a grade for the presentation and seminar participation (which counts 1/3) and a grade for the seminar paper. The latter counts 2/3 to the final grade in case no exam is written and 1/3 in case of participation in the optional exam (which then also counts 1/3).

Credit options: Please see cmlife.

Seminar Instructions

- The seminar language is English.
- Time allowed: 30 min. presentation, 15 min. discussion.
- Presentations should be a concise and comprehensive overview of the topic.
- Although the literature given below should be the focus of your seminar paper, you are expected to find additional material yourself.
- Your presentation should be fully ready at the beginning of the seminar. In case of last-minute changes in schedule, you might be asked to present earlier than announced.

Registration

Students who want to register for the seminar can do so with an e-mail to <u>alexander.mayer@uni-bayreuth.de</u> until September 30, 2025. Please indicate a list of priorities with at least three topics you would like to cover.

Admission to the seminar is based on "first come, first serve". You will be notified about acceptance (and your topic) directly after registration.

Topics

T1. Why Business Alliances May Fail

R. Gulati, T. Khanna and N. Nohria (1994). Unilateral commitments and the importance of process in alliances. *MIT Sloan Management Review 35*(3), 61-69.

T2. Pricing Strategies I: Honest Pricing

P. K. Kopalle and R. A. Shumsky (2012). Game theory models of pricing. In Ö. Özer and R. Phillips (Eds.), *The Oxford Handbook of Pricing Management*, pp. 381-414. Oxford: Oxford University Press.

I. Ayres and B. Nalebuff (2003). In praise of honest pricing. *MIT Sloan Management Review 45*(1), 24-28.

T3. Pricing Strategies II: Airline Pricing

P. K. Kopalle and R. A. Shumsky (2012). Game theory models of pricing. In Ö. Özer and R. Phillips (Eds.), *The Oxford Handbook of Pricing Management*, pp. 381-414. Oxford: Oxford University Press.

A. Collins and L. Thomas: Learning competitive dynamic airline pricing under different customer models. *Journal of Revenue and Pricing Management* 12(5), 416-430.

T4. Tesla's Strategic Move to Share its Patents with the Public

J. Bessen (2014). History backs up Tesla's patent sharing. *Harvard Business Review* (June 12, 2014)

M. Watzinger, T. A. Fackler, M. Nagler and M. Schnitzer (2020): How antitrust enforcement can spur innovation: Bell Labs and the 1956 Consent Decree. *American Economic Journal: Economic Policy* 12(4), 328-359.

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T5. How Limiting Their Options Made Microsoft and Nintendo Better Off

P. Talwalkar (2013). *The Joy of Game Theory*, pp. 101-109. Self-Published.

P. J. Coughlan (2004). The golden age of home video games: from the reign of Atari to the rise of Nintendo. *Harvard Business School*, Case 9-704-487.

T6. Facebook and the Data Sharing Dilemma

- J. Krämer, D. Schnurr and M. Wohlfarth (2019). Trapped in the data-sharing dilemma. *MIT Sloan Management Review 60*(2), 22-23.
- J. Krämer, D. Schnurr and M. Wohlfarth (2019). Winner, loser, and Facebook: The role of social logins in the online advertising ecosystem. *Management Science* 65(4), 1678-1699.

T7. Negotiations between Greece and its Creditors

A. Pitsoulis and S. C. Schwuchow (2017). Holding out for a better deal: Brinkmanship in the Greek bailout negotiations. *European Journal of Political Economy 48*, 40-53.

T8. Competition and Collusion in the NASDAQ Stock Market

P. K. Dutta (1999). *Strategies and Games*, Chapter 16. Cambridge, MA: MIT Press.

T9. Oil Prices and the Role of OPEC

P. K. Dutta (1999). *Strategies and Games*, Chapter 17. Cambridge, MA: MIT Press.

T10. Second-Price Auctions From Goethe to Google

B. Moldovanu and M. Tietzel (1998). Goethe's second-price auction. *Journal of Political Economy* 106(4), 854-859.

H. Varian (2016). The economics of internet search. In J. M. Bauer and M. Latzer (Eds.), *Handbook on the Economics of the Internet*, pp. 385-394. Cheltenham: Edward Elgar.

T11. The Winner's Curse in Sport Events

H. A. Solberg, D. M. Becker, J. M. Denstadli, F. Heldal and P. S. Knardal (2022): Why are major sports events trapped in the winner's curse? A case study of the 2017 World Road Cycling Championship. *Sport, Business and Management* 12(4), 403-420.

T12. Outsmarting Negotiation Designs? Signaling and Code-Bidding in Spectrum Auctions

P. Crampton and J. A. Schwartz (2002). Collusive bidding in the FCC Spectrum Auctions. *The B.E. Journal of Economic Analysis & Policy: Contributions to Economic Analysis & Policy* 1(1), Article 11.