Template for course description

Course title - English	Exclusive Contracts and Digital Platforms
ECTS credits	7,5
Level	PhD
Semester	Spring 2020
Course responsible	Professor II, Greg Shaffer, University of Rochester and NHH/BECCLE, and Professor II, Özlem Bedre-Defolie, ESMT Berlin, University of Bergen/BECCLE, and CEPR.
Teaching language	English
Teaching schedule	Intensive Course: April 27 – April 30 (Monday, Tuesday, Wednesday, Thursday), 1015-1200 and 1315-1500.

Topics

This course aims to provide students with a strong understanding of contracts between vertically related firms (Business to Business contracting). It investigates the use of exclusive contracts in traditional vertical settings, and provides state-of-the-art models of multi-sided platforms in digital markets. With respect to traditional settings, it considers the competitive effects of exclusive contracts paying particular attention to how upstream firms are able to induce the downstream firms to sign them. In markets with digital platforms, the course investigates digital platforms' optimal pricing and design decisions, and the effects of a platform's contractual conditions with its sellers on competition between sellers and between platforms.

The types of contracts considered include exclusive-dealing clauses, market-share requirements, loyalty discounts, long-term contracts, and Most-Favored-Customer clauses (MFCs). Contracts with non-linearities that do not explicitly reference rivals are also considered and the question is asked when such contracts may harm competition. Policy implications will be considered throughout the course.

Specific topics include:

1) Chicago school critique of naked exclusion

2) Exclusives to enhance investment incentives

3) Exclusives when there are externalities across buyers

4) Entry deterrence by exclusionary clauses

5) What makes multi-sided platforms different from standard firms

6) How to account for these differences in pricing and designing important aspects of digital platforms

Learning outcome

Knowledge:

At the end of the course students will have a broad understanding of

- the literature on exclusive contracts and entry deterrence, and how the various arguments in this literature inform the public policy debate over their use
- the classical models of multi-sided markets, key aspects, like cross-group network effects, digital platforms need to consider in pricing and designing their platforms, important policy questions related to the practices of digital platforms, and potential policy implications.

Skills:

At the end of the course students will be able to

- use game theoretic models in applied vertical settings
- assess the competitive effects of exclusive contracts in particular settings
- identify what makes multi-sided platforms special and distinctive relative to firms selling regular products and services.
- analyze multi-sided platforms' optimal pricing and design decisions, identify key challenges, and provide specific recommendations.

General Competence:

At the end of the course students will

- have an understanding of how exclusive contracts affect market outcomes in the economy
- gain a deep understanding of the economic tradeoffs involved in determining optimal strategies of multi-sided platforms and evaluating how these practices affect consumers, their 3rd party providers (sellers), and rival platforms.

Teaching

Plenary lectures. The course will go through seminal theories of industrial organization in the listed topics mainly focusing on intuition, basic economic trade-offs, modelling approaches, applications and limitations. In order to fully grasp the material from the class discussions, it is important to come to the class prepared. This involves reading the assigned (required) readings for each session and thinking critically about the papers. Reading critically theoretical research work means trying to address the following questions:

• What is the research question? Why is it interesting? (how does it help you to understand the real world?)

• What is the main finding (insight, message) of the paper? What are the implications of the results? Are they relevant for applications?

• What are the key mechanisms at work in the context of the paper?

• What are the main ingredients of the theoretical model (players, timing, actions/strategies, payoffs, information assumptions, equilibrium notion)?

• Which assumptions are critical for the result? Are they realistic?

• How robust are the findings? Would they be valid if particular assumptions were relaxed?

Materials permitted during the examination

One bilingual dictionary.

Recommended prerequisites

A good knowledge of static oligopoly theory (i.e., Cournot, Bertrand, and Stackelberg models) and a basic knowledge of game theory (e.g., simultaneous and sequential move games, standard solution concepts) is essential. A good way to get up to speed on these topics would be to consult the relevant chapters in one of the standard graduate IO textbooks. Two of our favorites are Jean Tirole (1988), *The Theory of Industrial Organization*, and Xavier Vives (1999), *Oligopoly Pricing*.

Requirements for course approval

Assessment

The assessment for this course consists of one individually written take-home exam (40%), one individually written referee report (50%), and class participation (10%).

The home-exam will be available beginning 8:00 on 4 May (start date). You will have until 16:00, 8 May, to complete it (submission date). The home-exam is to be individually written and will comprise 40% of your grade.

An important aspect of doing research and having a successful academic career is the ability to evaluate work (both your own work and also others'). Each student is thus also expected to write one referee report individually on a recent research paper. The instructors will provide a list of papers at the beginning of the course. You will be expected to choose one paper from this list and prepare a report on it. The report is to be individually written and will be due within 2 weeks of the completion of the course. It will comprise 50% of your grade.

The last component of your grade consists of class participation. By this, we mean attendance in class each day and participation in class discussions. Class participation will comprise 10% of your grade.

Grading scale

Pass/Fail

Computer tools

None

Literature

Overview:
- D.P. O'Brien, "Lecture 4: Exclusive Dealing: Second Dolomites Summer School on Antitrust," 2009 (sections 1 and 2)
- Marvel, H. (1982), "Exclusive Dealing," *Journal of Law & Economics*, 25: 1-25

Non-price, non-contractible decisions :

- Segal, I. and M. Whinston (2000), "Exclusive Contracts and Protection of Investments," *Rand Journal of Economics*, 31: 603-633
- Besanko, D. and M.K. Perry (1993), "Equilibrium Incentives for Exclusive Dealing in a Differentiated Products Oligopoly," *Rand Journal of Economics*, 24: 646-667
- de Meza, D. and M. Selvaggi (2007), "Exclusive Contracts Foster Relationship-Specific Investment," *Rand Journal of Economics*, 38: 85-97
- Fumagalli, C., Motta, M. and T. Ronde (2012), Exclusivity-Dealing: Investment Promotion May Facilitate Inefficient Foreclosure," Journal of Industrial Economics, 60: 599-608

Externalities across buyers

- D. P. O'Brien, "Lecture 4: Exclusive Dealing: Second Dolomites Summer School on Antitrust," 2009 (sections 5 and 6)
- Rasmusen, E., Ramseyer, J., and J. Wiley (1991), "Naked Exclusion," *American

Economic Review, 81: 1137-1145

- Segal, I. and M. Whinston (2000), "Naked Exclusion: Comment," *American Economic Review*, 90: 296-311
- Spector, D. (2011), "Exclusive Contracts and Demand Foreclosure," *Rand Journal of Economics*, 42: 619-638
- Chen, Z. and G. Shaffer (2014), "Naked Exclusion and Minimum-Share Requirements," *Rand Journal of Economics*, 45: 64-91
- Elhauge, E. and A. Wickelgren (2015), "Robust Exclusion and Market Division Through Loyalty Discounts," *International Journal of Industrial Organization*, 43: 111-121
- Miklos-Thal, J. and G. Shaffer (2016), "Naked Exclusion with Private Offers," *American Economic Journal: Microeconomics*, 8: 174-194
- Chen, Z. and G. Shaffer (2019), "Market-Share Contracts, Exclusive Dealing, and the Integer Problem," *American Economic Journal: Microeconomics*, 11: 208-242
- Fumagalli, C. and M. Motta (2006), "Exclusive Dealing and Entry, When Buyers Compete, *American Economic Review*, 96: 785-795
- Simpson, J. and A. Wickelgren (2007), "Naked Exclusion, Efficient Breach, and Downstream Competition," *American Economic Review*, 97: 1305-1320
- Abito, J.M. and J. Wright (2008), "Exclusive Dealing with Imperfect Downstream Competition," *International Journal of Industrial Organization*, 26: 227-246
- Wright, J. (2009) "Exclusive Dealing and Entry, When Buyers Compete: Comment," American Economic Review, 99: 1070-1081

Entry Barriers

- Aghion and Bolton (1987), "Contracts as Barriers to Entry", *American Economic Review*, Vol. 77, pp. 388-401.
- de, E., Montero, J.P., and N. Figueroa (2016), "Discounts as a Barrier to Entry," *American Economic Review*, 106: 1849-1877.
- Bedre-Defolie and Biglaiser (2017), "Contracts as Barriers to Entry in Markets with Non-pivotal Buyers", *American Economic Review,* 107(7).

Multi-Sided Markets

- Rochet and Tirole (2002), "Cooperation among Competitors: Some Economics of Payment Associations," *RAND Journal of Economics,* Vol. 33(4), 549-570.
- Caillaud and Jullien (2003), "Chicken and Egg: Competition among Intermediation Service Providers," *RAND Journal of Economics,* Vol. 34(2), 309-328.
- Armstrong (2006), "Competition in Two-sided Markets," *RAND Journal of Economics,* Vol. 37(3), 668-691.
- Rochet and Tirole (2006), "Two-sided Markets: A Progress Report," *RAND Journal of Economics,* Vol. 37(3), 645-667.
- Weyl (2011), "A Price Theory of Multi-Sided Platforms," *American Economic Review*, Vol. 100(4), 1642-1672.
- Hagiu and Julien (2011), "Why do Intermediaries Divert Search," *Rand Journal of Economics*, Vol, 47(2), 332-367.
- Bedre-Defolie and Calvano (2013), "Pricing Payment Cards", *American Economic Association: Microeconomics*, Vol. 5, pp. 206 - 231.
- Edelman and Wright (2015), "Price Coherence and Excessive Intermediation", *Quarterly Journal of Economics*, *V*ol. 130 (3), pp. 1283 – 1328.

- Karle, Peitz, and Reisinger (2019), "Segmentation versus agglomeration: Competition between platforms with competitive sellers, *forthcoming Journal of Political Economy.*

Course workload

Lectures: 16 hours

Home exam: 10 hours

Written report: 40 hours

Self-study of the course material: 50 hours