

Advanced Industrial Organization

Course title – Intitulé du cours	Advanced Industrial Organization
Level / Semester – Niveau /semestre	M2/S1
School – Composante	Ecole d'Economie de Toulouse
Teacher – Enseignant responsable	Doh-Shin Jeon (15h)
Other teacher(s) – Autre(s) enseignant(s)	Alexandre de Cornière (15h)
Other teacher(s) – Autre(s) enseignant(s)	
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Lecture Hours – Volume Horaire CM	30
TA Hours – Volume horaire TD	
TP Hours – Volume horaire TP	
Course Language – Langue du cours	English
TA and/or TP Language – Langue des TD et/ou TP	

Teaching staff contacts – Coordonnées de l'équipe pédagogique :

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Alexandre de Cornière, alexandre.de-corniere@tse-fr.eu, office T666

Course Objectives – Objectifs du cours :

It is a class of advanced industrial organization theory with particular emphasis on the interface between theory and practice of competition policies. For this purpose, we will cover a number of real world cases tightly related to the theory that we teach.

In the first half of the course, Doh-Shin Jeon will cover some basic concepts (horizontal merger, collusion and vertical restraints) and two-sided markets.

The second half of the course, taught by Alexandre de Cornière, will be focused on exclusionary practices by dominant firms: predatory pricing, exclusive dealing, exclusivity rebates, tying and vertical foreclosure.

We will also post some exercises which will complement the class and help you to get prepared for the final exam.

We encourage you to participate actively in the class and fully understand all the material that we teach (hand writings on whiteboard and slides). You can use the references to enhance your understanding.

Prerequisites – Pré requis :

Basic game theory and intermediate level of microeconomics

Practical information about the sessions – Modalités pratiques de gestion du cours :

The use of smartphone is strictly prohibited. The use of a laptop or a tablet is allowed only for typing class content.

Grading system – Modalités d'évaluation :

80 percent of the grading will be based only on the final exam , which is typically composed of: binary choice questions, exercises and analysis of a short case to analyze. So you should understand well economic intuitions of course materials and able to perform the analysis and apply the results to cases.

20 percent of the grading will be based on homework of the case studies. We plan to give 5 mini cases which you should analyze by forming a group.

- Group formation: You should form a group of four students and send me an email (to dohshin.jeon@tse-fr.eu) by 18/09 (Wednesday) so that I can announce the groups during the lecture of 19/09

- Case study (the part of Jeon): I will give you three case studies one per week starting from the second week. We will discuss each case during the Thursday lecture of the following week

Bibliography/references – Bibliographie/références :

Motta, Massimo. *Competition Policy: Theory and Practice*. Cambridge University Press, 2004

Tirole, Jean. *The Theory of Industrial Organization*, MIT, 1988

Chiara Fumagalli, Massimo Motta and Claudio Calgano (**FMC**), *Exclusionary Practices*, Cambridge University Press, 2018

Other references

Kwoka, J. E; White, L.J. *The Antitrust Revolution*, Harper Collins College Publishers, 1994 (2nd edition), 1999 (3rd edition), 2004 (4th edition)

Whinston, Michael D. *Lectures on Antitrust Economics*, MIT, 2006

Session planning – Planification des séances :

Part I: Basic concepts and two-sided markets with applications to competition policy

1. Introduction

- Competition Policy: History and definition (Motta, Chap 1): will not be covered
- Review the current landscape of digital platforms.

2. Market definition and Horizontal Mergers (Motta. Chap 3, 5)

- Incentives to merge: Cournot vs Bertrand
- Benefit-Cost analysis of horizontal merger
- Merger guideline and market definition
- Cases: Coca-Cola and Dr Pepper (Kwoka and White, 1994)
Nestle and Perrier (Motta)

• Deneckere, R. J. and C. Davidson (1985). "Incentive to Form Coalitions with Bertrand Competition." *The RAND Journal of Economics*, 16: 473-86.

• Salant, S., S. Switzer and R. Reynolds (1983). "Losses from Horizontal Merger: the Effects of an Exogenous Change in Industry Structure on Cournot-Nash Equilibrium." *Quarterly Journal of Economics*, 98:185-199.

3. Two-sided markets

- Monopoly and competition : membership-based externalities
- Payment platforms : usage-based externalities

• Anderson, Simon and Stephen Coate (2005). "Market Provision of Broadcasting: A Welfare Analysis", *Review of Economic Studies*, 72: 947-972

• Armstrong, Mark (2006). "Competition in Two-Sided Markets", *RAND Journal of Economics*, 37: 668-691.

• Caillaud, Bernard and Bruno Jullien (2003). "Chicken and Egg: Competition Among Intermediation Service Providers", *RAND Journal of Economics*, 34: 309-329.

• Edelman, Benjamin and Julian Wright (2015). "Price Coherence and Excessive Intermediation", *Quarterly Journal of Economics*, 130: 1283-1328

• Jeon, Doh-Shin, Byung-Cheol Kim and Domenico Menicucci (2022). "Second-Degree Price Discrimination by a Two-sided Monopoly Platform, *American Economic Journal: Microeconomics*, 14(2), 322-369

- Jeon, Doh-Shin, Yassine Lefouili, Yaxin Li and Timothy Simcoe (2023), "Ecosystems and Complementary Platforms" Working Paper
- Rochet, Jean-Charles and Jean Tirole (2002). "Cooperation among Competitors: Some Economics of Payment Card Associations", RAND Journal of Economics, 33: 549-570.
- Rochet, Jean-Charles and Jean Tirole (2003). "Platform Competition in Two-Sided Markets", Journal of the European Economic Association, 1: 990-1029.
- Rochet, Jean-Charles and Jean Tirole (2006). "Two-Sided Markets: A Progress Report", RAND Journal of Economics, 35: 645-666
- Rochet, Jean-Charles and Jean Tirole (2011). "Must-Take Cards: Merchant Discounts and Avoided Costs", Journal of the European Economic Association, 9(3): 462-495.
- Weyl, Glen (2010), "A price theory of two-sided markets," *American Economic Review*,

4. Collusion and Horizontal agreements (Motta. Chap 4, Tirole, Chap 6)

- Relevant factors for collusion: Theory with application to Nestle and Perrier case (Motta)
- Coordination and the role of communication: Sugar Institute (AER, 2001), ATP case (Motta)
- Standard of proofs (What should be legal or illegal?) and Wood Pulp case (Motta)
- Leniency program
- Bernheim, Douglas and Michael Whinston (1990). "Multimarket Contact and Collusive Behavior." The RAND Journal of Economics, 21(1), 1-26.
- Genesaove David and Wallace P. Mullin. "Rules, Communication and Collusion: Narrative Evidence from the Sugar Institute Case", *American Economic Review*, Vol 91, 379-98, 2001
- Green, E and R. Porter (1984), "Non-Cooperative Collusion Under Imperfect Price Information", *Econometrica* 52:87-100

5. Introduction to vertical restraints (Motta. Chap 6, Tirole, Chap 4)

- Terms of vertical restraints
- Basic vertical externalities
- Intra-brand competition
- Inter-brand competition

Part II: Exclusionary Practices

6. Exclusive dealing

- FMC Chapter 3
- Aghion, P and G. Bolton (1987). "Contracts as a Barrier to Entry", *American Economic Review* 77: 388-401
- Bernheim, Douglas, and Michael Whinston. (1998). "Exclusive Dealing." *Journal of Political Economy*, 106(1): 64-103
- Fumagalli, Chiara and Massimo Motta, (2006). "Exclusive Dealing and Entry, when Buyers Compete," *American Economic Review*, 96(3): 785-795.
- Rasmusen, E. B., J. M. Ramseyer, and J.S. Wiley. (1991). "Naked Exclusion," *American Economic Review*, 81: 1137-45.
- Segal, Ilya and Michael Whinston (1997), "Naked Exclusion: Comment." *American Economic Review* 90: 296-309
- Calzolari, Giacomo, and Vincenzo Denicolo (2015), « Exclusive Contracts and Market Dominance », *American Economic Review*

7. Vertical foreclosure

- FMC Chapter 5
- Hart, O. and J. Tirole, (1990), "Vertical Integration and Market Foreclosure," *Brookings Papers on Economic Activity (Microeconomics)*, 205-285.
- Rey, Patrick and Jean Tirole (2005). "A Primer on Foreclosure," *Handbook of Industrial Organization*, vol. III, North Holland, 2005, p. 2145-2220.
- Ordover, J. A., Saloner, G., & Salop, S. C. (1990). Equilibrium vertical foreclosure. *The American Economic Review*, 127-142

8. Tying and Bundling

- FMC Chapter 4
- Bakos, Yannis, and Eric Brynjolfsson. (1999). "Bundling Information Goods: Pricing, Profits and Efficiency." *Management Science*, 45(12): 1613-1630.
- Carlton, Dennis, W. and Michael Waldman, (2002). "The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries," *Rand Journal of Economics*, Summer, pp. 194-220.
- Choi, Jay Pil and Chris Stefanadis. (2001). "Tying, Investment, and the Dynamic Leverage Theory." *RAND Journal of Economics*, 32(1): 52-71.

- Choi, Jay Pil, Doh-Shin Jeon and Michael Whinston (2022), "Tying in Markets with Network Effects", Mimeo
- Jeon, Doh-Shin and Domenico Menicucci (2012). "Bundling and Competition for Slots", *American Economic Review*, 102, 1957-1985.
- Nalebuff, Barry. (2004). "Bundling as an Entry Barrier." *Quarterly Journal of Economics*, 119(1): 159-188.
- Whinston, Michael D. (1990). "Tying, Foreclosure and Exclusion." *American Economic Review*, 80(4): 837-859.
- De Cornière, Alexandre and Greg Taylor (forthcoming). « Anticompetitive Bundling when Buyers Compete », *American Economic Journal: Microeconomics*
- Choi, Jay Pil (2010), "Tying in Two-Sided Markets with Multi-Homing," *Journal of Industrial Economics*, 58 (3), pp. 607-626
- Choi, Jay Pil and Doh-Shin Jeon, (2021) "A Leverage Theory of Tying in Two-sided Markets with Non-negative price constraints", *American Economic Journal: Microeconomics*, 13 (1), pp. 283-337
- de Cornière, Alexandre and Greg Taylor, (2021), "Upstream Bundling and Leverage of Market Power", *The Economic Journal*, 131 (640): 3122-3144

9. Predatory pricing

- FMC Chapter 1
- Bolton, Patrick, and David S. Scharfstein. "A theory of predation based on agency problems in financial contracting." *The American economic review* (1990): 93-106.
- Kreps, David M., and Robert Wilson. "Reputation and imperfect information." *Journal of economic theory* 27.2 (1982): 253-279.
- Milgrom, Paul, and John Roberts. "Predation, reputation, and entry deterrence." *Journal of economic theory* 27.2 (1982): 280-312.
- Fumagalli, Chiara, and Massimo Motta. "A simple theory of predation." *The Journal of Law and Economics* 56.3 (2013): 595-631.