

## 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 (27 hours)
Other teacher(s) – Autre(s) enseignant(s)	Patrick Rey (3 hours)
Other teacher(s) – Autre(s) enseignant(s)	
Other teacher(s) – Autre(s) enseignant(s)	
Other teacher(s) – Autre(s) enseignant(s)	
Other teacher(s) – Autre(s) enseignant(s)	
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 :

Doh-Shin Jeon

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T675 (office)

### 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, I will cover a number of real world cases tightly related to the theory that I teach.

However, in the first half, I will teach some basic topics together with **the theory of two-sided markets**. In the second half, I will teach more advanced topics: when I teach advanced topics, I will also try to teach how each topic can be studied in a two-sided market (if possible).

There will be a total of 30 hours. All hours will be covered by myself except for one week's teaching by Patrick Rey, who will cover topic 8, "Intrabrand competition, Interbrand competition and Competition Policy".

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

I encourage you to participate actively in the class and fully understand all the materials that I teach (hand writings on blackboard 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 :**

In principle, there use is prohibited. If you want to use a laptop or a tablet for typing, please let me know.

### **Grading system – Modalités d'évaluation :**

80 percent of the grading will be based only on the final exam , which 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. I will give 5 – 6 mini cases which you should analyse.

### **Bibliography/references – Bibliographie/références :**

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

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

#### **Other references**

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

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

### **Session planning – Planification des séances :**

Thursday 9:30 - 12:30 at MD 104

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

1. Competition Policy: History and definition (Motta, Chap 1)
  - Brief History of Competition Policy: US, Germany, EU
  - Objectives of Competition Policy
  - Competition Policy and Market Power
  
2. Two-sided markets
  - Before teaching the theory of two-sided markets, I will review the current landscape of digital platforms.
  - Definition
  - Monopoly
  - Competition

- 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.
- 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.

### 3. 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.

### 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.

- Genesove 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. Vertical agreements (Motta. Chap 6, Tirole, Chap 4)
  - Terms of vertical restraints
  - Basic vertical externalities
  - Intrabrand competition
  - Interbrand competition

## Part II: Advanced Topics

6. Exclusive dealing with application to the First Microsoft case (Kwoka and White, 1999)

- 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

7. Vertical relations: Intrabrand competition, Interbrand competition and Competition Policy (by Patrick Rey)

- Rey, Patrick and Joseph E. Sitglitz, (1994), "The Role of Exclusive Territories in Producers' Competition," *Rand Journal of Economics*, 26:431-451.
- 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.
- Rey, Patrick and Thibaud Vergé (2010). "Resale Price Maintenance and Interlocking Relationships", *Journal of Industrial Economics*, 58(4), p. 928-961.

- Rey, Patrick and Thibaud Vergé (2017), ““Secret contracting in multilateral relations,” TSE Working Paper n. 16-744

- Cases: OFT vs Imperial Tobacco, DOJ vs Apple (e-book case)

## 8. Tying and Bundling with application to Microsoft bundling case (Motta, Chap 7.3.2)

- 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 P., and Chris Stefanadis. (2001). "Tying, Investment, and the Dynamic Leverage Theory." *RAND Journal of Economics*, 32(1): 52-71.

- Jeon, Doh-Shin and Domenico Menicucci (2006). "Bundling Electronic Journals and Competition among Publishers," *Journal of the European Economic Association*, vol.4 (5): 1038-83.

- Jeon, Doh-Shin and Domenico Menicucci (2012). "Bundling and Competition for Slots", *American Economic Review*, 102, 1957-1985.

- McAfee, R.P, McMillan, J., Whinston, M. (1989). "Multiproduct Monopoly, Commodity Bundling, and Correlation of Values," *Quarterly Journal of Economics* 104, pp. 371-384.

- 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.

- Tying in two-sided markets

- 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, (forthcoming) “A Leverage Theory of Tying in Two-sided Markets”, *American Economic Journal: Microeconomics*

## 9. IT and compatibility

- Crémer, Jacques, Patrick Rey and Jean Tirole. (2000) "Connectivity in the Commercial Network" *Journal of Industrial Economics*, 48(4): 433-72

- Hurkens, Sjaak, Doh-Shin Jeon and Domenico Menicucci (2019) “Dominance and Competitive Bundling with Non-negative Price Constraints”, *American Economic Journal: Microeconomics* 11: 1-33

- Jeon, Doh-Shin and Domenico Menicucci (2011). "Interconnection among Academic Journal Websites: Multilateral versus Bilateral Interconnection", The RAND Journal of Economics, 42(2): 363-386.
- Katz, Michael L. and Carl Shapiro (1985). "Network Externalities, Competition, and Compatibility", American Economic Review, 75, 424-440.
- Matutes, Carmen and Pierre Régibeau (1988). "'Mix and Match': Product Compatibility without Network Externalities," RAND Journal of Economics, vol. 19(2), pages 221-234

**Distance learning – Enseignement à distance :**

- Interactive virtual classrooms / Classe en ligne interactive
- MCQ tests and other online exercises and assignments / QCM et exercices en ligne