

INSTITUTO DE ECONOMIA  
PONTIFICIA UNIVERSIDAD CATOLICA DE CHILE

**EAE-334A: ORGANIZACION INDUSTRIAL**

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J:5-6; ayud. V:6

Sala Doctorado

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Este es un curso de postgrado de organización industrial; una rama de la microeconomía que se preocupa fundamentalmente de entender cómo funcionan y se organizan empresas y mercados fuera de las estructuras de competencia perfecta y monopolio natural. El objetivo del curso es entregar un tratamiento de temas e industrias que sean relevantes y actuales y que además introduzcan a los alumnos a técnicas que puedan eventualmente usar en sus tesis de investigación. El curso presenta un balance (aunque un poco sesgado) entre modelos teóricos y trabajos empíricos. El curso no cubre modelos empíricos estructurales. El curso supone que los alumnos tienen un conocimiento de teoría microeconómica (al nivel de Teoría Micro I) y de econometría aplicada (al nivel de un curso avanzado de pregrado).

El texto principal del curso es *The Theory of Industrial Organization* de Jean Tirole (Cambridge, MIT Press, 1988). También puede actuar como buen complemento/sustituto el libro *Oligopoly Pricing* de Xavier Vives (Cambridge, MIT Press, 2001). Tirole entrega una visión muy completa de varios de los temas teóricos que veremos en el curso. Este texto, el cual está en Biblioteca, será complementado con muchos artículos de revistas (posiblemente algunos serán indicados más adelante en forma oportuna). Todas las lecturas marcadas con asterisco (\*) **son lecturas requeridas y se espera que el alumno las lea antes de la clase respectiva**. La aparición y ubicación de los asteriscos puede cambiar durante el semestre. Verán que las lecturas empíricas no tienen asteriscos porque esas las van a tener que cubrir Uds en sus presentaciones. La mayoría de las lecturas están disponibles ya sea en JSTOR.ORG (vía Biblioteca PUC) y los más recientes se pueden encontrar con una búsqueda en Google.

Este año Fernando Luco (profesor en Texas A&M) dictará cuatro clases sobre análisis empírico estructural en IO al final del curso. Detalle de sus clases está en la sección VIII del programa.

La evaluación del curso se divide en dos partes. Un 75% de la evaluación final estará basada en tres evaluaciones escritas con igual ponderación a ser tomadas en las fechas de la Prueba 1, Prueba 2 y Examen. Estas evaluaciones estarán basadas en las tareas que se entreguen durante el semestre. El 25% restante estará basado en participación y discusión en clases, presentación de *papers* en clases, tareas, e informes de referatos.

## PROGRAMA

### **I. INTRODUCCION**

¿Qué es la organización industrial?  
Conocimientos básicos de teoría de juegos

(\*) Tirole, Introduction, p.1-13

Tirole, Cap. 1

Schmalensee, R. (1988), Industrial economics: An overview, *Economic Journal* 98, 643-681.

(\*) Tirole, Cap. 11, Game Theory User's Manual, 423-459.

### **II. COMPETENCIA ESTÁTICA**

#### **Teoría**

(\*) Tirole, Sección 2.1 y cap. 5. y/o Vives, caps. 4, 5 y 7.2.

F. Fisher (1989), Games economists play: A noncooperative view, *RAND Journal of Economics* 20 (Spring), 113-124.

(\*) D. Kreps and J. Scheinkman (1983), Quantity precommitment and Bertrand competition yield Cournot outcomes, *Bell (now RAND) Journal of Economics* 14 (Autumn), 326-337.

(\*) Klemperer, P. and M. Meyer (1989), Supply function equilibria in oligopoly under uncertainty, *Econometrica* 1243-78.

Saloner, G (1987), Cournot duopoly with two production periods, *Journal of Economic Theory*.

(\*) Allaz, B. and J.-L. Vila (1993), Cournot competition, forward markets and efficiency, *Journal of Economic Theory* 59, 1-16.

Mahenc P., and F. Salanie (2004), Softening competition through forward trading, *Journal of Economic Theory* 111, 282-293.

Hendricks K., and R.P. McAfee (2010), A theory of bilateral oligopoly, *Economic Inquiry*.

(\*) Jeon, D. S., and Menicucci, D. (2012). Bundling and Competition for Slots, *American Economic Review*, 102(5), 1957-1985.

Vives, X. (2011), Strategic supply function competition with private information, *Econometrica* 79, 1919-1966

### **Evidencia Empírica**

T. Bresnahan (1982), The oligopoly solution concept is identified, *Economic Letters* 10, 87-92.

T. Bresnahan (1988), Empirical studies of industries with market power, in *Handbook of Industrial Organization*.

D. Genesove and W. Mullin (1998), Testing static oligopoly models: Conduct and cost in the sugar industry, 1890-1914, *RAND Journal of Economics* (Summer), 355-377.

Corts, K. (1999), Conduct parameters and the measurement of market power, *Journal of Econometrics* 88, 227-50.

Wolfram, C. (1999), Measuring duopoly power in the British electricity spot market, *American Economic Review*.

Wolfram, C. (1998), Strategic bidding in a multi-unit auction, *RAND Journal of Economics* 29, 703-725.

Bushnell, J., E. Mansur and C. Saravia (2008), Vertical Arrangements, Market Structure, and Competition: An Analysis of Restructured U.S. Electricity Markets, *American Economic Review*.

Hortacsu, A., and S. Puller (2008), Understanding strategic bidding in multi-unit auctions: a case study of the Texas electricity spot market, *RAND J Economics*

### **III. COMPETENCIA DINAMICA/COLUSION**

#### **Teoría**

(\*) Tirole, cap. 6 y/o Vives cap. 9

J. Rotemberg and G. Saloner (1986), A super-game theoretic model of price wars during booms, *American Economic Review* 76 (June), 390-407.

(\*) Maskin E and J. Tirole (1988), A theory of dynamic oligopoly II: Price competition, kinked demand curves and Edgeworth Cycles, *Econometrica* 56, 571-599.

Haltiwanger and Harrington (1991), The impact of cyclical demand movements, *RAND Journal of Economics*

- (\*) Green, E. and R. Porter (1984), Non-cooperative collusion under imperfect price information, *Econometrica* 52 (January), 87-100.
- Abreu, D., D. Pearce and E. Stachetti (1990), Toward a theory of discounted repeated games with imperfect monitoring, *Econometrica*, 1041-1063
- Montero, J.-P. and J.I. Guzmán (2010), Output-enhancing collusion in the presence of a competitive fringe, *Journal of Industrial Economics*.
- Liski, M. and J.-P. Montero (2006), Forward trading and collusion in oligopoly, *Journal of Economic Theory*.
- Compte, O., F. Jenny and P. Rey (2002), Capacity constraints, mergers and collusion, *European Economic Review*, 1-29.
- Staiger, R., and F. Wolak (1992), Collusive Pricing with Capacity Constraints in the Presence of Demand Uncertainty, *RAND Journal of Economics*.
- Bernheim, D. and M.D. Whinston (1990), Multimarket contact and collusive behaviour, *RAND Journal of Economics* 21 (Spring), 1-26.
- McAfee, P. and J. McMillan (1992), Bidding rings, *American Economic Review* 82, 579-99
- Athey, S., K. Bagwell and C. Sanchirico (2002), Collusion and price rigidity, *Review of Economic Studies* 71, 317-349.
- (\*) Athey, S., and K. Bagwell (2001), Optimal collusion with private information, *Rand Journal of Economics* 32 (Autumn), 651-674.
- Nocke, V. and L. White (2008), Do vertical mergers facilitate upstream collusion?, *American Economic Review*.
- Whinston, M.D (2006), *Lectures on Antitrust Economics*, MIT Press, caps. 1 y 2.
- Harrington, J. (2004), Cartel pricing dynamics in the presence of an antitrust authority, *RAND Journal of Economics*, 651-73.
- Rey and Tirole (2013), Cooperation vs Collusion: How Essentiality Shapes Co-opetition, mimeo
- Harrington, J. and J-P Montero (2014), Cartel sales dynamics when monitoring for compliance is more frequent than punishment for non-compliance, in Peitz and Spiegel, eds., *Analysis of Competition Policy and Sectoral Regulation*.
- (\*) Harrington, J. and A. Skrzypacz (2007), Collusion with monitoring of sales, *RAND Journal of Economic* 38, 314-331.

(\*) Harrington, J. and A. Skrzypacz (2011), Private monitoring and communication in cartels: Explaining recent collusive practices, *American Economic Review*.

(\*) Awaya, Y., and V. Krishna (2016), On Communication and Collusion, *American Economic Review* 106, 285-315.

Green, E., R. Marshall and L. Marx (2014), Tacit collusion in oligopoly, *The Oxford Handbook of International Antitrust Economics*, Vol 2, Eds. R. Blair and D. Sokol.

Bonatti, A., G. Cisternas and J. Toikka (2017), Dynamic Oligopoly with Incomplete Information, *Review of Economic Studies*, forthcoming.

(\*) Bernheim and Madsen (2017), Price cutting and business stealing in imperfect cartels, *American Economic Review*

### **Evidencia Empírica**

Porter, R. (1983), A study of cartel stability: The Joint Executive Committee, 1880-1886, *Bell Journal of Economics* 14 (Autumn), 301-314.

Ellison, G. (1994), Theories of Cartel Stability and the Joint Executive Committee, *RAND Journal of Economics* 25 (Spring), 37-57.

Röller, L.-H. and F. Steen (2006), On the workings of a cartel: Evidence from the Norwegian cement industry, *American Economic Review* 96, 321-338.

Borenstein, S. and A. Shepard (1996), Dynamic pricing in retail gasoline markets, *RAND Journal of Economics*, 429-51.

Genesove, D. and W.P. Mullin (2001), Rules, Communication, and Collusion: Narrative Evidence from the Sugar Institute Case," *American Economic Review*, 91 (3), 379-398.

Wang, Z. (2009), (Mixed) strategy in oligopoly pricing: Evidence from Gasoline pricing cycles before and under a timing regulation, *Journal of Political Economy* 117, 987-1030.

Knittel, C. and V. Stango (2003), Price ceilings as focal points for tacit collusion: Evidence from credit cards, *American Economic Review* 93 (December), 1703-1729.

Porter, R. and D. Zona (1999), Ohio school milk markets: An analysis of bidding, *RAND Journal of Economics* 30, 263-288.

Noel, M. (2006), Edgeworth price cycles: Evidence from the Toronto retail gasoline market, *Journal of Industrial Economics* 55, 69-92.

Miller, N. (2009), Strategic leniency and cartel enforcement, *American Economic Review* 99, 750-768.

Miller, N., and M. Weinberg (2017), Understanding the price effects of the MillerCoors Joint Venture, *Econometrica*

**Evidencia Numérica** (dictado en 2016 por Thomas Gresik, Notre Dame)

Besanko, D. and U. Doraszelski, 2004, Capacity dynamics and endogenous asymmetries in firm size, *Rand Journal of Economics* 35, 23-49.

Doraszelski, U. and M. Satterthwaite, 2007, Computable markov-perfect industry dynamics, *RAND Journal of Economics* 41, 215-243.

#### **IV. MODELOS DE DIFERENCIACION DE PRODUCTOS**

##### **Teoría**

(\*) Tirole, Cap. 2 y 7

Hotelling, H. (1929), Stability in competition, *Economic Journal* 39 (March), 41-57.

Chen, Y. and M. Riordan (2008) , Price-increasing competition, *RAND Journal of Economics*.

D'Aspremont, C., J.J. Gabszewicz, and J.-F. Thisse (1979). On Hotelling's "Stability in Competition", *Econometrica* 47, 1145-50.

Dixit, A., and J. Stiglitz (1977), Monopolistic competition and optimum product diversity, *American Economic Review* 67 (June), 297-308.

Shaked., A. and J. Sutton (1982), Relaxing price competition through product differentiation, *Review of Economic Studies* 49, 3-13.

Champsaur, P. and J-C Rochet (1989), Multiproduct duopolists, *Econometrica* 57, 533-557.

##### **Evidencia Empírica**

Einav, L. and J. Levin, "Empirical Industrial Organization: A Progress Report," *Journal of Economic Perspectives*, 24 (Spring 2010): 145-162.

(\*) Bresnahan (1987), Competition and collusion in the American automobile industry: The 1955 price war, *Journal of Industrial Economics* 35 (June), 475-482.

Berry, S. (1994), Estimating discrete-choice models of product differentiation, *RAND Journal of Economics* 242-262.

Berry, S., J. Levinsohn and A. Pakes (1995), Automobile prices in market equilibrium, *Econometrica* 63 (July), 841-890.

Nevo, A. (2001), Measuring market power in the ready-to-eat cereal industry, *Econometrica* 307-342.

Berry, Levinsohn and Pakes (2004), Differentiated products demand systems from a combination of micro and macro data: The new car market, *Journal of Political Economy*, 68-105.

## **V. ENTRADA**

### **Entrada y estructura de mercado**

#### **Teoría**

(\*) Tirole, Secciones 8.1 y 8.2

Jovanovic, B.(1982), Selection and the evolution of industry, *Econometrica* (May), 649-670.

Sutton, J. (1991), *Sunk Costs and Market Structure*, MIT Press, Chapters 1-2.

Mankiw, G. and M. Whinston (1986), Free entry and social inefficiency, *RAND Journal of Economics* 17, 48-58.

#### **Evidencia Empírica**

S. Berry and J. Waldfogel (1999), Free entry and social inefficiency in radio broadcasting, *RAND Journal of Economics* 30 (Autumn), 397-420.

T. Bresnahan and P.C. Reiss (1991), Entry and competition in concentrated markets, *Journal of Political Economy* 99, 977-1009.

Ellickson, P (2007), Supermarkets as a natural Oligopoly, *RAND Journal of Economics*.

### **Estrategias para prevenir entrada**

#### **Teoría**

(\*) Tirole, 8.3-8.6

R. Schmalensee (1978), Entry deterrence in the ready-to-eat break cereal industry, *RAND Journal of Economics* 9, 305-327.

A. Dixit (1980), The role of investment in entry-deterrence, *Economic Journal* 90, 95-106.

### **Evidencia Empírica**

Chevalier, J. (1995), Capital structure and product market competition: Empirical evidence from the supermarket industry, *American Economic Review* 85 (June), 415-435.

Goolsbee, A. and C. Syverson (2008), How do incumbents respond to the threat of entry? Evidence from the major airlines, *Quarterly Journal of Economics* 123, 1611-1633.

## **VI. DISCRIMINACION Y DISPERSION DE PRECIOS**

### **Teoría**

#### **Monopolista y bienes durables (y almacenables)**

(\*) Tirole, Cap. 1. (incluyendo Supplementary Section)

Bulow (1982), Durable goods monopolists, *Journal of Political Economy* 15, 314-332

Coase, R. (1972), Durability and monopoly, *Journal of Law and Economics* 15, 143-149.

Ausubel, L. and R. Deneckere (1989), Reputation in bargaining and durable goods monopoly, *Econometrica* 57 (May), S203-S232.

Liski, M. and J.-P. Montero (2011), On the Exhaustible-resource monopsony, mimeo

Waldman, M. (2003), Durable goods theory for real world markets, *Journal of Economic Perspectives* 17, 131-154.

(\*) Dudine, Hendel y Lizzeri (2006), Storable Good Monopoly: The Role of Commitment, *American Economic Review* 96 (December), 1706-1719.

McAfee, P., and T. Wiseman (2008), Capacity choice counters the Coase Conjecture, *Review of Economic Studies*.

(\*) Board, S. and M. Pycia Paper (2014), Outside Options and the Failure of the Coase Conjecture, *American Economic Review* 2014, 656-671.

#### **Dispersión de precios, búsqueda, y costos de cambio**

(\*)Varian, H. (1980), A model of sales, *American Economic Review* 70, 651-659.



(\*) Fabra, N. & J-P Montero (2018), Product Choice and Price Discrimination in Markets with Search Costs, working paper

Klemperer, P. (1987), The competitiveness of markets with switching costs, *RAND Journal of Economics* 18 (Spring), 137-150.

McAfee, P (1995), Multiproduct equilibrium price dispersion, *Journal of Economic Theory* 67, 83-105.

(\*) Janssen, M. and Moraga-González (2004), Strategic pricing, consumer search and the number of firms, *Review of Economic Studies* 71, 1089-1118.

Stahl, D (1989), Oligopolistic Pricing with Sequential Consumer Search, *American Economic Review* 79, 700-712.

(\*) Janssen, M., and S. Shelegia (2015), Consumer Search and Double Marginalization, *American Economic Review* 105: 1683-1710.

### **Discriminación de precios**

(\*) Tirole, Cap. 3.

Varian (1980), Price discrimination and social welfare, *American Economic Review* 75.

McAfee, R.P, J. McMillan and M. Whinston (1989), Multiproduct monopoly, commodity bundling an correlation of values, *Quarterly Journal of Economics* 104 (May), 371-383.

### **Discriminación de precios en oligopolio, empaquetamiento**

(\*) Stole, L. (1995), Nonlinear pricing and oligopoly, *Journal of Economics and Management Strategy*, 529-62.

(\*) Ellison, G. (2005), A model of add-on pricing, *Quarterly Journal of Economics*, 585-637.

(\*) Armstrong, M. and J. Vickers (2010), Competitive non-linear pricing and bundling, *Review of Economic Studies* 77, 30-60.

Montero, J.-P., and E. Johnson (2012), Multimarket contact, bundling, and collusive behaviour, mimeo, PUC.

Armstrong, M (2013). A more general theory of bundling, *Journal of Economic Theory*.

Chu, C. S.; Leslie, P. and A. Sorensen (2011), Bundle-Size Pricing as an Approximation to Mixed Bundling, *American Economic Review*

## **Evidencia**

Sorenson, A. (2000), Equilibrium price dispersion in retail markets for prescription drugs, *Journal of Political Economy* 108 (August).

Borenstein, S. and N. Rose (1994), Competition and price dispersion in the U.S. Airline Industry, *Journal of Political Economy* 102 (August), 653-683.

Gerardi, K. and A.H. Shapiro (2009), Does competition reduce price dispersion? New evidence from the airline industry, *Journal of Political Economy* 117, 1-37.

Shepard, A. (1991), Price discrimination and retail configuration, *Journal of Political Economy* 99 (February), 30-53.

Chevalier, J. and A. Goolsbee (2009), Are durable goods consumers forward looking? Evidence from college textbooks, *Quarterly Journal of Economics*.

Crawford, C., and A. Yurukoglu (2012), The welfare effects of bundling in multichannel television markets, *American Economic Review*.

Ellison, G. and S. Ellison (2009), Search, obfuscation, and price elasticities on the internet, *Econometrica* 77, 427-452.

Babur de los Santos et al (2012), Testing models of consumer search using data on web browsing and purchasing behaviour, *American Economic Review* 102, 2955-2980.

## **VII. MERCADOS MAYORISTAS, RELACIONES VERTICALES Y CONTRATOS DE EXCLUSIVIDAD**

### **Teoría**

Aghion, P. and P. Bolton (1987), Contracts as a barrier to entry, *American Economic Review* 77 (June), 388-401.

Whinston, M. (1990), Tying, foreclosure and exclusion, *American Economic Review* 53, 837-859

Segal, I. and M. Whinston (2000), Naked exclusion: A comment, *American Economic Review*.

Nalebuff, B. (2004) Bundling as an entry barrier , *Quarterly Journal of Economics*, February, 159-187.

(\*) Ide, E., J.-P. Montero and N. Figueroa (2016), Discounts as a barrier to entry, *American Economic Review*

(\*) Ide, E. and J.-P. Montero (2018), A Theory of Foreclosure and Wholesale Bundling, mimeo.

Calzolari, G., and Denicolò, V. (2013). Competition with Exclusive Contracts and Market-Share Discounts, *American Economic Review* 103, 2384-2411.

(\*) Calzolari, G., and Denicolò, V. (2015). Exclusive Contracts and Market Dominance, *American Economic Review* 105, 3321-51.

Asker, J., & Bar-Isaac, H. (2013). "Raising Retailers' Profits: On Vertical Practices and the Exclusion of Rivals". *American Economic Review* (forthcoming)

Whinston, M.D (2006), *Lectures on Antitrust Economics*, MIT Press, cap. 4

Rey, P. y Whinston, M (2013), Does retailer power lead to exclusion, *RAND J Econ* 44, 75-81.

Inderst, R. and G. Shaffer (2010), Market-share contracts as facilitating practices, *RAND J Economics* 41, 709-729.

(\*) Chen, Z., and P. Rey (2012), Loss leading as an exploitative practice, *American Economic Review* 102, 3462-3482.

Johnson, J. (2017), Unplanned purchases and retail competition, *American Economic Review*, forthcoming.

Johnson, J. (2017), The Agency Model and MFN Clauses, *Review of Economic Studies*.

(\*) Bedre-Defolie (2017), Contracts as a barrier to entry in markets with nonpivotal buyers, *American Economic Review*

## **Evidencia**

Conlon, C., and J. Mortimer (2017), All-units discounts: Experimental Evidence from the Vending Industry, working paper

Crawford, G., R. Leez, M. Whinston and A. Yurukoglu (2018), The Welfare Effects of Vertical Integration in Multichannel Television Markets, working paper, Stanford.

## **VIII. Análisis Empírico Estructural en IO (dictado por Fernando Luco, Texas A&M, últimas 4 clases)**

**Clase 1:** Introducción a estimación de demanda (Tarea: Implementar estimación de Logit y Nested Logit con datos que yo les daré)

Berry, S (1994), "Estimating Discrete-Choice Models of Product Differentiation", The RAND Journal of Economics, Vol. 25, No. 2, pp. 242-262

**Clase 2:** Random coefficient logit (tarea: repetir la tarea anterior pero con este método)

**Clase 3:** Papers clásicos sobre estimación de demanda, variables instrumentales, medidas de bienestar, e implementación eficiente de los estimadores.

Berry, S., Levinsohn, J., y Pakes, A. (1995), "Automobile Prices in Market Equilibrium", *Econometrica*, Vol. 63, No. 4, pp. 841-890

Nevo, A. (2001), "Measuring Market Power in the Ready-to-Eat Cereal Industry", *Econometrica*, Vol. 69, No. 2, pp. 307-342.

Nevo, A. (2000), "A practitioner's guide to estimation of random-coefficients logit models of demand" *Journal of economics & management strategy*, 9(4), 513-548.

Petrin, A. (2002). Quantifying the benefits of new products: The case of the minivan. *Journal of political Economy*, 110(4), 705-729.

**Clase 4:** Aplicaciones "modernas"

Hom, M (2017), "School Choice, Segregation, and Access to Quality Schools Evidence from Arizona", Yale University.

Irace, M (2017), "Patient Loyalty in Hospital Choice: Evidence from New York", Northwestern University.

Miravete, E., Seim, K. and Thurk, J. (2017), "One Markup to Rule Them All: Taxation by Liquor Pricing Regulation", NBER Working Paper 24124".

## **IX. OTROS TOPICOS EN OI**

### **9.1 Información Asimétrica**

Tirole, cap. 9 y/o Vives, cap. 8

P. Milgrom and J. Roberts (1986), Limit pricing and entry under incomplete information: An equilibrium analysis, *Econometrica* 50 (March), 443-460.

D. Genesove (1993), Adverse selection in the wholesale used car market, *Journal of Political Economy* 101 (August), 664-665.

T. Hubbard (1998), An empirical examination of moral hazard in the vehicle inspection market, *RAND Journal of Economics* 29 (Summer), 406-426.

## **9.2 Two-sided markets**

Rochet J.-C. and J. Tirole (2006), Two sided markets: A progress report, *RAND Journal of Economics* 37, 645-667.

Armstrong, M. (2006), Competition in two-sided markets, *RAND Journal of Economics* 37, 668-691.

## **9.3 Investigación y desarrollo**

Tirole, secciones 10.1-10.5, 8.1.3

Kremer, M. (1998), Patents buy-outs: A mechanism for encouraging innovation, *Quarterly Journal of Economics* 113, 1137-1167.

## **9.4 Racionalidad Acotada en IO**

G. Ellison (2006), Bounded rationality in Industrial Organization, *Advances in Economics and Econometrics, Theory and Applications*, Ninth World Congress. Cambridge Univ. Press.

X. Gabaix and D. Laibson (2006), Shrouded attributes, consumer myopia, and information suppression in competitive markets, *Quarterly Journal of Economics*.

Della Vigna and Malmendier (2004), Contract design and self-control: Theory and evidence, *Quarterly Journal of Economics*, 353-402.

Grubb, M. (2009), Selling to overconfident consumers, *American Economic Review* 99, 1770-1807.

## **9.5 Análisis de Fusiones**

Farrel, J. and C. Shapiro, "Horizontal mergers: An equilibrium analysis," *American Economic Review* 80, 107-126.

Nocke, V. and M. Whinston (2010), Dynamic merger review, *Journal of Political Economy* 118, 1200-1251.

Nocke, V., and M. Whinston (2012), Merger policy with merger choice, *American Economic Review*.

## **9.6 Subastas**

K. Hendricks and R. Porter (1988), "An Empirical Study of an Auction with Asymmetric Information," *American Economic Review* 78, 865-83.