# Economics of vertical restraints

# May 19-28 2014

Lecturers: Professor Greg Shaffer Simon Business School University of Rochester shaffer@simon.rochester.edu

and

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*Class Times*: 10:15-12:00, 13:15-15:00 (M, T, W, both weeks) *Workshop*: Friday May 23, 0900 – 16:00 *Class Room*: Auditorium, JUS II, Jekteviksbakken 31 (ground floor).

Much of the literature on industrial organization implicitly assumes that firms sell directly to final consumers. However, the reality is that many firms sell through intermediaries (e.g., wholesalers and retailers) who then resell to final consumers. This course is about contracting issues that arise in such settings. It is designed to bring you to the forefront of the research in this exciting area. We will consider how competition is impacted by the feasibility of different contracts and the information that each side has. We will also discuss policy implications.

# I. Course Requirements: take-home exam

# **II.** Background and reading materials

Papers are listed under each of the lectures. The plan is to cover as many of the classics as possible in class and then to touch on how the literature has progressed in each instance. We have denoted required readings with an asterisk (other readings are supplemental).

We will assume a basic knowledge of static oligopoly theory (i.e., Cournot and Bertrand models). We will also assume a basic knowledge of game theory (complete information, simultaneous and sequential move games). You might wish to consult an I.O. text, such as the one by Tirole, *The Theory of Industrial Organization*, MIT Press, 1988, chapter 11, or the one by Vives, *Oligopoly Pricing: Old Ideas and New Tools*, MIT Press, 1999. chapter 2.

# **III.** Syllabus

# Lecture 1 -- May 19: Vertical control (successive monopoly, double marginalization)

\* O'Brien, D.P., "Lecture 1: Introduction to Vertical Restraints: Second Dolomite Summer School on Antitrust," 2009.

# Lecture 2 -- May 19: Vertical control (downstream competition, free riding)

\* O'Brien, D.P., "Lecture 2: Pros and Cons of Vertical Restraints I: Second Dolomite Summer School on Antitrust," 2009.

Telser, L. (1960), "Why Should Manufacturers Want Fair Trade," *Journal of Law and Economics*, 3: 86-105.

Klein, B. and K. Murphy (1988), "Vertical Restraints as Contract Enforcement Mechanisms," *Journal of Law & Economics*, 31: 265-297.

- \* Mathewson, G.F. and R. Winter (1984), "An Economic Theory of Vertical Restraints," *Rand Journal of Economics*, 15: 27-38.
- \* Winter, R. (1993), "Vertical Control and Price Versus Non-Price Competition," *Quarterly Journal of Economics*, 108: 61-76.

Inderst, R. and G. Shaffer (2013), "Wholesale Price Determination Under the Threat of Demand-Side Substitution," mimeo.

# Lecture 3 -- May 20: Vertical control (uncertainty, asymmetric information, inventories)

\* O'Brien, D.P., "Lecture 3: Pros and Cons of Vertical Restraints II: Second Dolomite Summer School on Antitrust," 2009

Rey, P. and J. Tirole (1986), "The Logic of Vertical Restraints," *American Economic Review*, 76," 921-939.

Romano, R. (1994), "Double Moral Hazard and Resale Price Maintenance," *Rand Journal of Economics*, 25: 455-466.

\* Krishnan, H. and R. Winter (2007), "Vertical Control of Price and Inventory," *American Economic Review*, 97: 1840-1857.

#### Lecture 4 -- May 20: Vertical control (opportunism and unobservable contracts)

- \* O'Brien, D.P, "Lecture 3: Pros and Cons of Vertical Restraints II: Second Dolomite Summer School on Antitrust," 2009
- \* O'Brien, D.P. and G. Shaffer (1992), "Vertical Control with Bilateral Contracts," *Rand Journal of Economics*, 23: 299-308.

McAfee, R.P. and M. Schwartz (1994), "Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity, and Uniformity," *American Economic Review*, 84: 210-230.

Rey, P. and T. Vergé (2004), "Bilateral Control with Vertical Contracts," *Rand Journal of Economics*, 35: 728-746.

Gabrielsen, T. and B. Johansen (2013), "The Opportunism Problem Revisited: The Case of Retailer Sales Effort," mimeo.

#### Lecture 5 -- May 21: Vertical control (strategic delegation, rivalrous principal-agents)

- \* Bonanno, G. and J. Vickers (1988), "Vertical Separation," *Journal of Industrial Economics*, 36: 257-265.
- \* Shaffer, G. (1991), "Slotting Allowances and Resale Price Maintenance: A Comparison of Facilitating Practices," *Rand Journal of Economics*, 22: 120-135.

Rey, P. and J. Stiglitz (1995), "The Role of Exclusive Territories in Producers' Competition," *Rand Journal of Economics*, 26: 431-451.

Corts, K. and D. Neher (2003), "Credible Delegation," *European Economic Review*, 47: 395-407.

Foros, O. and H. Kind (2008), "Do Slotting Allowances Harm Retail Competition?," *Scandinavian Journal of Economics*, 110: 367-384.

#### Lecture 6 -- May 21: Vertical control (multi-product firms, common agency)

Shaffer, G. (1991), "Capturing Strategic Rent: Full-Line Forcing, Brand Discounts, Aggregate Rebates, and Maximum Resale Price Maintenance," *Journal of Industrial Economics*, 39: 557-575.

Vergé, T. (2001), "Multi-product Monopolist and Full-Line Forcing: The Efficiency Argument Revisited," *Economics Bulletin*, 12: 1-9.

Innes, R. and S. Hamilton (2009), "Vertical Restraints and Horizontal Control," *Rand Journal of Economics*, 40: 120-143.

\* Inderst, R. and G. Shaffer (2010), "Market-Share Contracts as Facilitating Practices," *Rand Journal of Economics*, 41: 709-729.

#### Lecture 7 -- May 26: Vertical control (Downstream buyer power)

Bedre-Defolie, O. (2011), "Vertical coordination through renegotiation," *International Journal of Industrial Organization*, 30: 553-563.

Inderst, R. and G. Shaffer (2013), "Wholesale Price Determination Under the Threat of Demand-Side Substitution," mimeo.

- \* Marx, L. and G. Shaffer (2007), "Upfront Payments and Exclusion in Downstream Markets," *Rand Journal of Economics*, 38: 823-843.
- \* Miklós-Thal, J., P. Rey and T. Vergé (2011), "Buyer Power and Intrabrand Coordination," *Journal of the European Economic Association*, 9: 721-741.

Rey, P. and M. Whinston (2013), "Does Retailer Power Lead to Exclusion?," *Rand Journal of Economics*, 44: 75-81.

#### Lecture 8 -- May 26: Vertical control (Common agency)

- \* Bernheim, D. and M. Whinston (1985), "Common Marketing Agency as a Device for Facilitating Collusion," *Rand Journal of Economics*, 16: 269-281.
- \* Bernheim, D. and M. Whinston (1986), "Common Agency," *Econometrica*, 54: 923-942.

Bernheim, D. and M. Whinston (1998), "Exclusive Dealing," Journal of Political Economy, 106: 64-103.

# Lecture 9 -- May 27: Vertical control (Inter- and Intra-brand completion: interlocking relationships)

Björnerstedt, J. and J. Stennek (2007), "Bilateral Oligopoly – The Efficiency of Intermediate Markets," *International Journal of Industrial Organization*, 25: 884-907.

\* Dobson, P. and M. Waterson (2007), "The Competition Effects of Industry-Wide Vertical Price Fixing in Bilateral Oligopoly," *International Journal of Industrial Organization*, 25: 935-962.

Horn, H. and A. Wolinsky (1988), "Bilateral monopolies and incentives for merger," *Rand Journal of Economics*, 19: 408–419.

\* Rey, P. and T. Vergé (2010), "Resale Price Maintenance and Interlocking Relationships," *Journal of Industrial Economics*, 58: 928-961.

Rey, P. and T. Vergé (2014), "Secret Contracting with Interlocking Relationships," mimeo.

#### Lecture 10 -- May 27: Vertical control (Endogeneous market structure)

Boutin, X., P. Biscourp and T. Vergé (2014), "Vertical control, market structure and product variety", mimeo.

de Fontenay and Gans (2013), "Bargaining with Externalities", forthcoming in *Journal* of Industrial Economics.

Rey, P. and T. Vergé (2014), "Secret Contracting with Interlocking Relationships," mimeo.

#### Lecture 11 -- May 28: Vertical integration

Chen, Y. (2002), "On vertical mergers and their competitive effects", *Rand Journal of Economics*, 33: 667:685.

de Fontenay, C. and J. Gans (2005), "Vertical integration in the presence of upstream competition," *Rand Journal of Economics*, 35: 544-572.

- \* Hart, O. and J. Tirole (1990), "Vertical Integration and Market Foreclosure," *Brookings Papers on Economic Activity*, 1990, 205-276.
- \* Nocke, V. and P. Rey (2013), "Vertical Integration and Foreclosure in Multilateral Relations," mimeo.

Riordan, M. (2008), "Competitive effects of vertical integration," in *Handbook of Antitrust Economics*, P. Buccirossi Ed., MIT Press.

#### Lecture 12 -- May 28: Vertical control and tacit collusion

- \* Jullien, B. and Rey, P. (2007), "Resale price maintenance and collusion," *Rand Journal of Economics*, 38: 983–1001.
- \* Nocke, V. and L. White (2007), "Do vertical mergers facilitate collusion," *American Economic Review*, 97: 1321-1339.

Nocke, V. and L. White (2010), "Vertical Mergers, Collusion and Disruptive Buyers", International Journal of Industrial Organization, 28: 350-354.

Normann, H.-T. (2009), "Vertical mergers, raising rival's cost and upstream collusion," *European Economic Review*, 53: 461–480.

Piccolo, S. and J. Miklós-Thal (2012), "Colluding through suppliers", Rand Journal of Economics, 43: 492-513.

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