

## Topics in Competition & Regulation: 429

**Course Description:** This course applies microeconomics to analyze government policy towards market power. *Regulation* controls the pricing or other actions of firms (e.g. entry or exit) in industries where unrestricted competition is viewed as not feasible or not desirable, notably “natural monopolies.” *Antitrust* or “competition policy” forbids transactions and practices that threaten competition. Currently, the course focuses on antitrust. It examines the three main areas of antitrust concern: mergers, collusion with rivals, and unreasonable exclusion of rivals. We study *horizontal* mergers, i.e. between competing firms, and *vertical* mergers, i.e. between firms at different stages of economic activity or, more generally, firms whose products are complements rather than substitutes. For both types of mergers, we analyze why anti-competitive effects or efficiencies can arise. We also address practices that may facilitate collusion (such as certain types of information exchange) or cause unreasonable exclusion (such as exclusive dealing requirements). The theories will be illustrated extensively with case studies from the “real world.”

[My syllabi from 2007, 2011 and 2014 have additional references on antitrust; 2003 has more on regulation. Note: from p.3 onwards, “+S11” means further references on a topic are in the Spring 2011 syllabus, etc.]

**Prerequisites & Grading:** I will stress issues over formal techniques, but intermediate micro theory is a prerequisite. Your grade will be based on: 3 take-home exercises 15%; mid-term exam 20%; mock trial 25%; final exam 40%. Both exams will rely heavily on material covered in class, so regular attendance is vital. In special cases, I may lower or raise a student’s score based on poor attendance or exceptionally good class participation. So please attend regularly, and chime in!

- **Mock trials:** There will be 2-3 mock trials on antitrust cases illustrating the theory covered in this course. For each trial, typically a team of 3-4 students will represent each side. To encourage team collaboration, half the grade on the trial will be based on your team’s reports and half on your individual oral performance. I will post more details on what’s expected, logistics, etc.
- If there are too many students to fit into the trials, then shortly after the Mid-Term I will:
  - (a) request volunteers to skip the trial and shift their points (25%) to the Final; and
  - (b) if there are not enough volunteers, or too many, I will use a lottery.

**Key dates:** Mid-term – Tuesday, Feb 26 (~ 100 minutes). *Final* – Tuesday, May 7, 4-6.

- Mock Trials: Tuesdays, April 23 & 30 (I’ll ensure the teams have no date conflict).

**Readings:** There is no required text, but extensive lecture notes will be provided. I will reference some pages from: J. Church and R. Ware, *Industrial Organization: A Strategic Approach*, Irwin/McGraw-Hill 2000 (“CW”). The book is out of print but the authors allow you to download and print a personal copy from: <<http://homepages.ucalgary.ca/~jrchurch/page4/page4.html>> I also posted a copy on Canvas.

- You are certainly *not* expected to read most of the items on this syllabus — it is mainly a resource in case you want to pursue various topics. The next page lists additional useful sources.
- All readings (including past syllabi) will be posted on Canvas, under Home icon.

**Honor Code.** A student found to have violated the Georgetown Honor Code will receive a grade of F, in addition to any penalties imposed by the Honor Council: <http://gervaseprograms.georgetown.edu/honor/> Mobile devices are *not allowed* during exams.

The following are helpful sources of information, in addition to the articles listed later:

## BOOKS

W.D. Collins ed., *Issues in Competition Law and Policy*, American Bar Association, 2008 (“Collins ed. 2008”)

J. Kwoka and L. White eds. *The Antitrust Revolution*, Oxford U Press. Several editions have been published since 1989, each offering useful overviews of the economics & law, and chapters on specific antitrust cases. I’ll reference them by the edition # and year, e.g., “K&W 4<sup>th</sup>, 2004.”

## JOURNALS (focusing on antitrust and regulation)

*Antitrust Bulletin* (AB, contains occasional symposia on ‘hot topics’)

*Antitrust Law Journal* (ALJ, contains occasional symposia on “hot topics”)

*Competition Policy International* (CPI, < <https://www.competitionpolicyinternational.com/>>)\*

*Economic Report of the President* (annual; typically has a chapter on competition or regulation)

*Information Economics and Policy* (IEP)

*Journal of Economic Perspectives* (JEP, relatively non-mathematical; occasional relevant symposia)

*Journal of Industrial Economics* (JIE, relatively technical)

*Journal of Law and Economics* (JLE)

*Journal of Regulatory Economics* (JRE relatively technical)

*Public Utilities Fortnightly* (covers telecom and energy; relatively non-technical)

*Review of Industrial Organization* (<<http://ideas.repec.org/s/kap/revind.html>> Includes an annual review by chief economists at DOJ, FTC, FCC and DG IV of their agencies’ main actions)

*Telecommunications Policy*

*The Electricity Journal* (relatively non-technical)

*The Energy Journal* (relatively technical)

## INTERNET

W. D. Collins, Applied Antitrust, NYU Law School: [www.appliedantitrust.com/index.htm](http://www.appliedantitrust.com/index.htm)  
(antitrust cases & filings, often with web links)

American Antitrust Institute [www.antitrustinstitute.org](http://www.antitrustinstitute.org)

European Commission, DG IV (Competition) [http://ec.europa.eu/dgs/competition/index\\_en.htm](http://ec.europa.eu/dgs/competition/index_en.htm)

Federal Communications Commission [www.fcc.gov](http://www.fcc.gov)

Federal Energy Regulatory Commission [www.ferc.gov](http://www.ferc.gov)

Federal Trade Commission [www.ftc.gov](http://www.ftc.gov)

National Association of Regulatory Utility Commissioners (NARUC) [www.naruc.org](http://www.naruc.org)

OECD Competition Directorate [www.oecd.org/competition/](http://www.oecd.org/competition/)

U.K. Competition & Markets Authority (CMA)  
[www.gov.uk/government/organisations/competition-and-markets-authority](http://www.gov.uk/government/organisations/competition-and-markets-authority)

U.S. Department of Justice, Antitrust Division [www.usdoj.gov/atr](http://www.usdoj.gov/atr)

Estimated # of classes per topic is shown at right, e.g., Topic 1 is 0.75 class. Each class is ~ 135 minutes. Strongly recommended readings are denoted by \*; d indicates more difficult.

## 1 WELFARE BACKGROUND, MONOPOLY PRICING AND DEADWEIGHT LOSS (0.75)

- \* CW, ch. 2—only these pages: competitive model: pp. 19-25; consumer surplus, producer surplus, total surplus: 25-29; monopoly price and deadweight loss: 31-34; monopolist's inverse-elasticity rule: 36-37; monopoly with linear demand & constant cost: 34-36

## 2 MONOPSONY (0.5)

- \* M. Schwartz, "Buyer Power Concerns and the *Aetna-Prudential* Merger," Address at the 5<sup>th</sup> Annual Health Care Antitrust Forum, Northwestern University School of Law, October 20, 1999: <<http://www.usdoj.gov/atr/public/speeches/3924.htm>>
- M. Schwartz, "Should Antitrust Assess Buyer Market Power Differently than Seller Market Power?" presentation at DOJ/FTC Workshop on Merger Enforcement, February, 2004

## 3 OTHER COSTS OR BENEFITS OF MONOPOLY, AND OVERVIEW OF ANTITRUST (0.75)

- \* M. Schwartz, "Other Welfare Losses or Gains from Monopoly," class notes — read just pp. 2-3
- \* M. Schwartz, "Antitrust Overview," class notes, 4pp
- CW, 718 (output/cost tradeoff), Appendix—Legal Framework of Antitrust Enforcement, 889-900
- W. Kovacic and C. Shapiro, "Antitrust Policy: A Century of Economic and Legal Thinking," *JEP*, 14, Winter 2000, 43-60
- J. Tirole, "Market Failures and Public Policy," *AER*, 105, June 2015, 1665-82 (for now, see just p. 1669 last ¶ — p.1670; many of the topics in this article will be covered later in the course)

## 4 HORIZONTAL MERGERS (3)

### 4.1 Anti-Competitive "Unilateral Effects" of Horizontal Mergers [+S11]

- CW, ch. 8—Classic Models of Oligopoly: Cournot: 231-8, 243-4; Bertrand: 256-63
- \* M. Schwartz, "Cournot Competition and Mergers," class notes (& slides on same topic)
- \* M. Schwartz, "Unilateral Effects from Merger: Bertrand Competition with Differentiated Products," slides
- d J. Farrell and C. Shapiro, "Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition," *The B.E. Journal of Theoretical Economics*: Vol. 10: Issue 1 (2010)
- Y. Chen and M. Schwartz, "Churn vs. Diversion in Antitrust: An Illustrative Model," *Economica*, vol. 83, issue 332, 2016, 564-583 (pitfalls in estimating diversion from switching data)

### 4.2 Merger Guidelines, Market Definition and Concentration [+S11]

- U.S. Department of Justice and the Federal Trade Commission, *Horizontal Merger Guidelines*, August 19, 2010 ("HMG"): <<http://www.justice.gov/atr/public/guidelines/hmg-2010.html>>
- \* M. Schwartz, "Horizontal Mergers: Market Definition & Concentration," slides on HMG § 1-4
- \* M. Schwartz, "Coordinated Effects from Merger," slides (on HMGs § 7 and USAir/AA merger 2013)
- L. Kaplow, "Why (Ever) Define Markets?" *Harv. L. Rev.*, vol. 124, no. 2, Dec. 2010, 437-516
- G. Werden, "Why (Ever) Define Markets? An Answer To Professor Kaplow," *ALJ*, vol. 78, no. 3, 2013, 729-46

### 4.3 Efficiencies from Horizontal Mergers [+S11]

- J. Farrell and C. Shapiro, "Scale Economies and Synergies in Horizontal Merger Analysis," *ALJ*, 68, 2001, 685-710
- M. Schwartz, "Entry and Merger Efficiencies," slides (pp. 5-15 address efficiencies)
- U.S. v. Anthem/Cigna*, District Court Memorandum Opinion, Feb. 2017 (skeptical that lower payments to healthcare providers due to merged firm's greater scale are true efficiencies)

### 4.4 Remedies in Horizontal & Vertical Mergers

- M. Motta, *Competition Policy: Theory and Practice*, Cambridge U. Press, 2004, 265-270
- M. Schwartz, "Merger Remedies," slides

### 4.5 Challenged Mergers: Case Studies [+S11]

- \* *Labelstock* (2003) (market definition & coordinated effects)
- M. Schwartz, "Labelstock Merger (2003), slides
- Verified complaint of U.S. Department of Justice vs. UPM and Bemis, 2003  
<[www.usdoj.gov/atr/cases/upm-kymmene.htm](http://www.usdoj.gov/atr/cases/upm-kymmene.htm)>
- AT&T/T-Mobile* (2011) (unilateral effects)
- E. Kwerel, P. Lafontaine and M. Schwartz, "Economics at the FCC 2011-201," *RIO*, vol. 41, no. 4 (2012), 271-302, see section 3.1 <<http://mariussschwartz.com/Home/Research.html>>
- S. Besen et al., "An Economic Analysis of the AT&T-T-Mobile USA Wireless Merger," *Journal of Competition Law & Economics*, 2013, 1-25
- \* *US Airways/American Airlines* (2013) (coordinated effects)
- U.S. v. US Airways and AMR, Amended Complaint, Sep. 2013:  
<<http://www.justice.gov/atr/cases/f300400/300479.pdf>>

## 5 COLLUSION

(1)

- \* M Schwartz, "Collusion: Exogenous Factors and Facilitating Practices," class notes, 5pp
- CW, ch. 10—Dynamic Models of Oligopoly:
- \* 305-8 (famous case study: Great Electric Equipment Conspiracies)
- \* 328-34: Punishing cheaters (335-40 are more technical you can skip or just skim them)
- 308-28: Reaching an Agreement. Some nice case studies:
- \* 314-8: Airline Tariff Publishing Company (airlines signaling proposed fares electronically)
- 318-21: Socony-Vacuum Oil Company (side payments to support cartel)
- 326-28: NASDAQ (fixing minimum bid-ask spreads)
- 340-48: Exogenous factors that help or hinder collusion
- \* 348-58: Business practices that may facilitate collusion, and antitrust approach
- J. Harrington, "Evaluating Mergers for Coordinated Effects and the Role of 'Parallel' Accommodating Conduct," *ALJ* vol. 38, no. 3 (2013), 651-668
- J. Harrington, "How Do Cartels Operate?" 2006: [www.econ2.jhu.edu/people/Harrington/fnt06.pdf](http://www.econ2.jhu.edu/people/Harrington/fnt06.pdf)
- J. Connor, "Global Cartels Redux: The Amino Acid Lysine Antitrust Litigation (1996)," March 2007, <http://ssrn.com/abstract=1408070> (you can skip the damages sections)
- E. Granitz and B. Klein, "Monopolization by 'Raising Rivals' Costs': The Standard Oil Case," *JLE*, 39, 1996, 1-47 (SO's dominance in refining came from its policing a railroads cartel)
- G. Priest, "Rethinking the Economic Basis of the Standard Oil Case: Dominance Against Competing Cartels," Feb. 2012: <http://ssrn.com/abstract=1984242>

## 6 VERTICAL CONTROL BY SECURE & UNREGULATED MONOPOLIST (2)

[Examine vertical-control reasons that are good or ambiguous for welfare; 8 & 9 will study exclusion.]

### 6.1 The Vertical / Horizontal Distinction and Methods of Vertical Control

- \* M. Schwartz, "Vertical Restraints," slides, 1-3  
CW, ch. 21—Vertical Integration and Vertical Restraints, pp. 688-90

### 6.2 Fixed-Proportions Benchmark and "One-Monopoly-Rent" Argument

- \* M. Schwartz, "Vertical Restraints," 4-5

### 6.3 Pricing Distortions by Complementary Monopolists ("Double Marginalization")

- \* M. Schwartz, "Vertical Restraints," 5-6
- \* M. Schwartz, "Complements Pricing & Mergers," slides (2-4 on "Cournot complements" problem; 13-15 on AT&T/DirecTV merger 2015; 16-19 on ABI-Modelo acquisition, 2013)

### 6.4 Contracting Problems, including Hold-Up; Pros & Cons of Integration [+S14]

- \* M. Schwartz, "Vertical Restraints," 7-11  
L. Telser, "Why Should Manufacturers Want Fair Trade?" *JLE*, 3, 1960, 86–105  
H. Marvel, "Exclusive Dealing," *JLE*, 25, 1982, 1–25  
M. Schwartz and G. Werden, "A Quality-Signaling Rationale for Aftermarket Tying," *ALJ*, 64, 1996, 387-404
- \* CW, ch. 3, 69-79 (on holdups, and contracts vs. integration); 81-4 (Limits to Firm Size); 101-2
- \* J. Tirole, "Market Failures and Public Policy," *AER*, 2015, only pp. 1676-80 (Intellectual Property)  
M. Lemley and C. Shapiro, "Patent Holdup and Royalty Stacking," *Texas Law Review*, 85 (2007), 1991-2049  
D. Geradin, A. Layne-Farrar, and J. Padilla, "The Complements Problem Within Standard Setting: Assessing the Evidence on Royalty Stacking," *B.U. J. Sci. & Tech. L.*, vol. 14 (2008), 144-176  
S. Scotchmer, *Innovation and Incentives*, MIT Press 2004, Ch. 5 (Protecting Cumulative Innovators), 127-135, 142-6  
F. Lafontaine and M. Slade, "Vertical Integration and Firm Boundaries: The Evidence," *Journal of Economic Literature*, 45, 2007, 629-685

### 6.5 Price Discrimination

- \* M. Schwartz, "Vertical Restraints," 12-13 (integration to foil arbitrage)
- \* M. Schwartz, "Balloon Principle for Pricing Complements" (class note, 1 p.)

## 7 EXCLUSION 1: PREDATION [+S11] (0.5)

- \* CW, ch. 21—Exclusionary Strategies II: Predatory Pricing, 643-5 (AA case), 654-62 (Empirical Evidence on Predation; Predation in Antitrust)

*U.S. v. American Airlines* (1999-2002)

DOJ's filings: <[www.usdoj.gov/atr/cases/indx199.htm](http://www.usdoj.gov/atr/cases/indx199.htm)> see especially DOJ's Complaint (5/13/1999), Brief for Appellant (1/11/2002), and Reply Brief (3/19/2002)

A. Edlin and J. Farrell, "The American Airlines Case: A Chance to Clarify Predation Policy (2001)," *K&W* 4<sup>th</sup>, 2004, 502-27

**8 EXCLUSION 2: CONTRACTS WITH CUSTOMERS OR SUPPLIERS [+S11] (0.75)**

- \* M. Schwartz and D. Vincent, "Quantity 'Forcing' and Exclusion: Bundled Discounts and Nonlinear Pricing," in Collins ed. 2008, only sections 1, 5, 7
- d E. Rasmusen, M. Ramseyer, and J. Wiley, "Naked Exclusion," *AER*, 81, 1991, 1137-45 (more advanced, but Introduction is accessible)
- T. Krattenmaker and S. Salop, "Competition and Cooperation in the Market for Exclusionary Rights," *AER*, 76, May 1986, 109-13

LePage's v. 3M (2003) Some of the briefs by both sides are well worth reading

AMD v. Intel (2005-10) [originally a private suit, but NY AG and FTC also sued Intel in US; European Commission also intervened]

J. Gans, "*Intel* and Blocking Practices (2010)," in K&W 6<sup>th</sup>, 2014, 413-434

**9 EXCLUSION 3: ACCESS TO INPUTS, COMPLEMENTS, OR NETWORK EFFECTS (0.75)**

**9.1 Access to Inputs or Complements Owned by Alleged Excluder ("Vertical Foreclosure")**

**9.1.1 Raising Rivals' Costs (RRC): Competitive Fringe**

- \* M. Schwartz, "Vertical Mergers and Foreclosure," slides (see 1-3)
- \* *United States v. Enova Corporation* (1998) (vertical integration – gas pipeline & electric utility)  
DOJ Competitive Impact Statement <<http://www.usdoj.gov/atr/cases/f1700/1789.htm>>  
[Read through Section III.A]

**9.1.2 Vertical Mergers in Oligopoly: Double Marginalization & RRC [+S11]**

- \* M. Schwartz, "Vertical Mergers and Foreclosure," slides (see 4-14 on Comcast/NBCU 2011)
- S. Salop, C. Shapiro, D. Majerus, S. Moresi and J. Murdoch, "News Corporation's Partial Acquisition of DIRECTV: Economic Analysis of Vertical Foreclosure Claims," July 1, 2003, read pp. 62-64, 74-79
- W. Rogerson, "A Further Economic Analysis of the Proposed Comcast-NBCU Transaction," Aug. 19, 2010, read pp. 1-18
- AT&T/Time Warner merger: Department of Justice, Complaint, Nov. 20, 2017; and District Court Memorandum Opinion, June 2018 (rejecting government's challenge)

**9.2 Network Effects: Installed Base Advantage and Compatibility / Interconnection**

- \* CW, ch. 20, 637-8
- \* CW, ch. 22, 698-703 (*U.S. v. Microsoft*) [MOCK TRIAL – more readings will be assigned]
- \* M. Schwartz, "Competitor Cooperation and Exclusion in Communications Industries," in H. Davis and R. Dick, Eds., *E-Commerce Antitrust & Trade Practices: Practical Strategies for Doing Business on the Web*, Practising Law Institute, New York, 2001 (8pp)
- D. Malueg and M. Schwartz, "Compatibility Incentives of a Large Network Facing Multiple Rivals," *JIE*, 54, 2006, 527-567 (read only Introduction).
- J. Kwoka and L. White, "Network Issues: The Economic and Legal Context," K&W 4<sup>th</sup>, 2004, 413-27
- A. Amelia, L. Karlinger and T. Valletti, "Exclusionary Practices and Two-Sided Platforms," OECD Nov. 2017

**10 REGULATED MONOPOLIST COMPETING IN ADJACENT MARKETS: CROSS-SUBSIDIES, AND (MORE IMPORTANT) ACCESS DISCRIMINATION AGAINST RIVALS [+ S11, S07, S03]**

Note: I won't have time to cover this topic this time, but see previous syllabi if interested

**11 EXCLUSIONARY CONDUCT: POLICY DILEMMAS**

**11.1 Preserving Investment Incentives [+S11, +S14]**

- \* P. Areeda, "Essential Facilities: an Epithet in Need of Limiting Principles," *ALJ*, 58, no. 3, 1990, 841-53
- J. Vickers, "Competition Policy and Property Rights," *Economic Journal*, vol. 120, May 2010, 375-392: <<http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0297.2010.02360.x/pdf>>

**11.2 Distinguishing Good vs. Bad Conduct [+S11, +S14]**

- \* J. Vickers, "Abuse of Market Power," *Economic Journal*, vol. 115, June 2005, pp. F244-F261
- J. Baker, "Exclusion as a Core Competition Concern," *ALJ*, vol. 78 (2013), 527-589
- S. Hemphill and Tim Wu, "Parallel Exclusion," *Yale Law Jrl.*, vol. 122 (March 2013), 1182-1251

**12 COOPERATION BY COMPETITORS ON INPUTS OR STANDARDS [+S11 +S14; skip in S19]**

**12.1 Potential Benefits & Risks and the Antitrust Framework**

FTC and U.S. DOJ, *Antitrust Guidelines for Collaborations Among Competitors*, April 2000  
U.S. DOJ and FTC, *Antitrust Guidelines for the Licensing of Intellectual Property*, issued April 1995: <<http://www.usdoj.gov/atr/public/guidelines/0558.htm>>  
S. Scotchmer, *Innovation and Incentives*, MIT Press, 2004, 161-180 (Licensing, Joint Ventures, and Competition Policy)

**12.2 Case Study: Telecommunications**

M. Schwartz, "Verizon Wireless & Cable Cos. Agreements (2012): Competitive Concerns," presentation at Toulouse School of Economics, December 2015  
DOJ Complaint in same case, August 2012: <<http://www.justice.gov/atr/cases/verizoncable.html>>  
FCC Order: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-12-95A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-12-95A1.pdf)  
Skim only Sections VI.A (Competitive Analysis), IX (Backhaul and Wi-Fi) and X (Review of the Commercial Agreements)

**13 SOME REGULATORY CONTROVERSIES (2)**

**13.1 No Surcharge Rule in Payment Networks**

M. Schwartz and D. Vincent, "The No Surcharge Rule and Card User Rebates: Vertical Control by a Payment Network," *Review of Network Economics*, 5, 2006, 72-102  
D. Carlton and R. Winter, "Vertical MFN's and the Credit Card No-surcharge Rule," June 2017  
M. Schwartz and D. Vincent, "Platform Competition With User Rebates Under No Surcharge Rules," November 2017: <<https://ssrn.com/abstract=3080888>>

### 13.2 “Net Neutrality”

- \* M. Schwartz, “Net Neutrality: Some Economic Issues,” conference presentation, May 2009, 28pp  
M. Schwartz and P. Weiser, “Introduction to a Special Issue on Network Neutrality,” *RNE* 8, issue 1 (2009): 1-12: <http://mariusschwartz.com/Home/Research.html>
- \* T. Valletti & C. Genakos, “Mobile Regulation and the ‘Waterbed’ Effect” 2010: <http://voxeu.org>  
C. Genakos and T. Valletti, “Testing the ‘Waterbed’ Effect in Mobile Telephony,” *Journal of the European Economic Association*, vol. 9, 2011, 1114-42
- S. Greenstein, M. Peitz and T. Valletti, “Net Neutrality: A Fast Lane to Understanding the Trade-offs,” *Journal of Economic Perspectives*, vol. 30, 2016, 127-150
- M. Katz, “Wither U.S. Net Neutrality Regulation?” *Review of Industrial Organization*, vol. 50, 2017, 441-468

### 13.3 Call Termination Rates: Regulation and Arbitrage

- \* E. Kwerel, P. Lafontaine and M. Schwartz, “Economics at the FCC 2011-2012: Spectrum Incentive Auctions, Universal Service and Intercarrier Compensation Reform, and Mergers,” *RIO*, vol. 41, no. 4 (2012), 271-302, see section 2.2 <<http://mariusschwartz.com/Home/Research.html>>
- D. Malueg and M. Schwartz, “International Telecom Settlements: Gaming Incentives, Carrier Alliances, and Pareto-Superior Reform,” *JIE*, 49 (2001), 335-377
- S. Littlechild, “Mobile Termination Charges: Calling Party Pays versus Receiving Party Pays,” *Telecommunications Policy*, vol. 30, Issues 5-6 (2006), 242-277

## 14 MOCK TRIALS: ANTITRUST CASES [additional readings will be posted]

### 14.1 XM-Sirius (2008, horizontal merger)

S. Moresi and S. Salop, “Sirius/XM Satellite Radio Merger (2008),” in *K&W* 6<sup>th</sup>, 2014, 92-116

### 14.2 U.S. v. Microsoft (2000, exclusionary conduct)

- \* CW, ch. 22, 698-703 (U.S. v. Microsoft)  
“The Microsoft Case,” Symposium in *JEP* 15, Spring 2001, 25-80 (three papers – by Gilbert and Katz, by Klein, and by Whinston)

### 14.3 U.S. v. Apple, Inc. et al. (E-Books) (2013, collusion)

G. Gaudin and A. White, “On the Antitrust Economics of the Electronic Books Industry,” September 2014 <<http://ssrn.com/abstract=2352495>>