

Economics 220B, spring 2007

Professor Joseph Farrell

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Office hours (at least to begin with):

Tuesdays 2:30-3:30, or by appointment (email me), in 519 Evans.

Handout #1 version 1.0

This class is about the industrial organization view of regulatory policy and competition policy. In keeping with today's trend to replace regulation with competition, we will spend more time on competition policy, largely antitrust. But we will talk about some active areas in regulation too.

Why this is what I do. It's important policy, and it's the fascinating interface where IO economics really meets complex facts, creative business arrangements, diabolical schemes to cheat consumers, (sometimes) correctable misconceptions of economics on the part of the lawyers and judges who tend to be in charge, etc. It is a blast. If you are interested in IO economics as a research career, I advise you EXTREMELY strongly to spend enough time (there are various ways to do it) on real-world problems (such as these) to make sure your research is not like all too many papers out there—technically okay but not really about much at all. (As editor of *JIE*, I used to treat such papers to “rejection on summary judgment”—a legal term meaning “even if you proved all you claim, so what?” Unfortunately not all journal editors do that, but you really won't do much good or even have much fun writing those papers, even if they get published.)

Books and Readings:

A lot gets written in this field, and a lot of it is worth reading, but it is worth restricting your reading so that it doesn't too badly interfere with time and energy for thinking.¹ In the past I have perhaps taken this too far and not assigned or recommended enough readings. This year it is your responsibility not to let me lurch too far the other way, or not to be too much influenced if I do. *Reading too little is better than thinking too little.* You may have to use judgment about extensive (how many things to read) versus intensive (how thoroughly to read them) margins.

From the economics side, excellent overviews include:

Louis Kaplow and Carl Shapiro, “Antitrust” chapter for *Handbook of Law and Economics*. This is available on Shapiro's web site at Haas:
<http://faculty.haas.berkeley.edu/shapiro/antitrust2007.pdf>.

Michael Whinston, *Lectures on Antitrust Economics*, MIT Press 2005.

Massimo Motta, *Competition Policy*, Cambridge University Press 2004. More comprehensive, especially on EU policies.

¹ To some extent you can “read now, think later,” but please don't take that too far, or forget to finish it.

In a different box is the book of case studies by multiple authors edited by John Kwoka and Lawrence White, *The Antitrust Revolution*, Oxford University Press, 4th edition, 2003. We will use this for case studies including in-class presentations.²

A historical perspective: W. Kovacic and C. Shapiro, “Antitrust policy: a century of economic and legal thinking,” *Journal of Economic Perspectives* 14 (2000).

Lawyers write even more than economists in this field, and you may not recognize the brand names as well as you can in economics. Two good starting points (books) are

Richard Posner, *Antitrust Law*, 2nd Edition (2001).

Herbert Hovenkamp, *The Antitrust Enterprise: Principles and Execution* (2006).

Lawyer journal articles are found in mainline law journals (notably Harvard, Yale, Stanford *Law Reviews*) and in specialized journals (notably *Antitrust Law Journal*, *Antitrust Bulletin*, *Antitrust* magazine). The American Bar Association’s Antitrust Section has an accessible web site with a lot of material. I bet the European competition policy community has its lawyer journals too, but I’m sorry to say I don’t know much about them. Of course economics publishing is (or seems) pretty much nation-blind.

The DOJ (www.usdoj.gov/atr) and the FTC (www.ftc.gov) share responsibility for federal antitrust enforcement. Lately, the FTC has been more active in putting out policy studies, etc. Other competition authorities worth checking up on include the EU (D.G.Comp.) and the UK (Competition Commission and the Office of Fair Trading), which also sponsor and publish policy studies. So do OECD and others.

Also read journal articles and working papers, *within reason*. Remember, given the way the economics publication process works, journal articles are normally (at least) several years old even if you read them hot off the press. So find them as working papers! Google Scholar is excellent; you can also use Repec and other working paper repositories. (NBER is only so-so in this field.) Given my views on reading/thinking, it won’t surprise me one bit if you can find good stuff on any given topic that I didn’t know about. Please do check out Berkeley’s Competition Policy Center publications—we are the best, after all (*go bears!*): <http://iber.berkeley.edu/cpc/Pubs/Publications.html> . IDEI at Toulouse is also very good: <http://idei.fr/news.php?lang=en> .

² Many months ago I had to choose texts for this class. I think I chose Whinston and Kwoka-White, so those should be available in the campus bookstore. If I said Motta too, buy it—it is good, especially as a complement to the others. But I may have felt I shouldn’t go overboard.

COURSE OUTLINE

Main part of the course: **Competition Policy (and/or: antitrust economics)**

Competing firms face a mutual negative externality or prisoner's dilemma (PD): each would rather the other compete less hard than it finds privately optimal. One can formulate this in terms of price, quality, innovation, or (best) overall value to the buyer. Each one's payoff is decreasing in how hard the other competes. Thus their joint profits are higher when each competes less hard than they do in the noncooperative equilibrium. How can they get there?

I structure this part of the class around this PD and competitors' techniques for evading it, which roughly fall into four categories:

- agreement (contracts, threats)
- competition-softening institutions (price matching, switching costs, etc.)
- horizontal (i.e. between competitors) mergers
- rival-weakening/exclusion

We will discuss why, and how, competition policy tries to sabotage firms' attempts (of each of these four kinds) to evade their PD, and thus "protects competition."

Why sabotage voluntary private efforts to solve a PD? Because of course there are externalities on others; in particular, consumers are better off if firms compete harder. Economics 101 suggests that consumers' gain outweighs the competitors' loss, but it's not so clear how central this is to the political economy, history, and jurisprudence of antitrust.

Question to keep in mind throughout class: What would a purely pro-consumer competition policy (but long-run in outlook and constrained by firms' ability to evade, exit, etc.) look like? What would a total-surplus-maximizing policy look like? How different are these in practice, and can one say clearly which policy (if either) is in force? Can you think of arguments that antitrust authorities should pursue pro-consumer (not total-surplus-maximizing) policies if the true goal is maximizing total surplus?³

Another One: What's the right balance between public policy to "tune" competitive forces so that they seem likely to promote efficiency, versus laissez-faire? In a sense this is the big one, which currently is mostly discussed in ideological terms; how do we get beyond that?⁴

³ See for instance recent articles by Ken Heyer and by Joseph Farrell and Michael Katz in *Competition Policy International* October 2006 (should be easy to find online) on the much-discussed, little-resolved question of which (if either) of these is the goal.

⁴ One approach asks what are the net benefits of competition policy as it is practiced (of course, the real question is marginal rather than average). See for instance Crandall and Whinston, and Baker, both in *Journal of Economic Perspectives* 2003. The DOJ's annual report makes a stab at estimating benefits of the year's enforcement, but most of it is "dark matter"—generalized and hard-to-observe deterrence of who-knows-what bad acts that therefore are not observed. Thus it's sort of a hopeless project.

Benefits of competition. The Econ 101 “triangles” argument that competition is efficient is not all that convincing—for instance, Harberger (1954) found low numbers ($\ll 1\%$ of GNP); if this were the point of microeconomics it would be a waste of time, and if these were the efficiency effects, one would surely have to take distributional questions more seriously. Most economists believe that the efficiency effects are both much bigger and much broader than those triangles. Total quantity, productive efficiency (within each firm and between firms), option value, diversity, innovation—what are the main points? Also think about what competition doesn’t help with (for instance, might competition in health insurance lead mostly to adverse selection problems?); this will be part of the background of the second “half” of the class, regulation. For instance, what should one think of the fact that economic theory says that incentives for entry into an oligopoly industry are often excessive?⁵

A more institutional question: A tolerable approximation is that (as someone said) firms are islands of command-and-control within the sea of competition or laissez-faire. A better approximation is that there are bits of competition within firms and bits of command-and-control (via contracts, laws,...) among them. In any case, we have a subtle mix. Is it the right mix? How would rightness, or wrongness, tend to come about?

Below, I predict what will happen on what days, through class 6. This is arguably a silly thing to do. But I have been viciously criticized in the past for not doing it, so here it is. Like most predictions, it could well turn out to be wrong.

Class 1 (Jan. 16): Introduction. We go beyond Econ 201 in thinking about what the benefits or problems with competition might be. I lay out the basic Prisoner’s Dilemma framework and predict a course through its four segments (above); we will spend much of the semester studying those four segments, both through case studies and through more conventional economic analysis. I will also give a rapid preview or trailer for the regulation part of the course.

I will also discuss class requirements. These will include presentations (see below), a term paper (see below), and some ongoing written assignments—problem sets and short memos.

Class 2 (Jan. 23): Collusion (“price fixing”), [theory before cases this time].

Read beforehand:

Kaplow-Shapiro, section III;

Whinston, chapter 2;

Motta chapter 4, especially 4.4.2 and 4.4.3, especially the material on leniency policy.

Genesove and Mullin, “Rules, Communication and Collusion,” *AER* 2001.

⁵ Gregory Mankiw and Michael Whinston, “Free entry and social inefficiency,” *RAND Journal* (1986).

Think about these discussion/research questions:

1. There are various ways that a cartel can break down: marketplace cheating, discovery by antitrust authorities, application for leniency, ... Intuitively, I would expect that each reinforces the others: that is, if there is a hazard rate $h_i(X)$ for the cartel to break down via mechanism i , where X is a set of exogenous factors about the industry, then there is positive feedback: higher h_i causes higher h_j . For instance, if firms expect that the cartel will be somewhat ineffectual because of a strong temptation to chisel in the market, that expectation increases the net incentive to apply for leniency, and vice versa. Is this idea basically right? What exactly would it mean? Is my impression also right that existing analyses look at these factors “too separately”—do they actually go wrong, or just not make that point explicitly? Could you test this view that the different hazards reinforce each other? What would it imply for testing the effectiveness of (say) leniency policy?
2. Given the “structural consensus” that collusion is much harder than the theoretical limits on existence of collusive subgame-perfect equilibrium suggests, how valuable is the literature that explores those limits? (Is the structural consensus right? Find out about the NASDAQ conspiracy with hundreds of members. What does that suggest?)

Class 3 (Jan. 30): Cases on collusion and competition-softening practices:

Cases on collusion: Kwoka-White, cases 10 (Connor: Lysine) and 11 (Fisher et al.: sports). We need *volunteers to present* these and two others (see below); others should *read them in advance*. Presentation of cases is part of the class assignment for those taking the class for credit, and I ask those auditing to be willing to contribute in the same way. The number of presentations you will make during the semester is endogenous, i.e., depends on number taking the class (but is not below 1).

Presenting a case for this class: You can choose to do it alone or with a partner; if the latter, you each get half credit. You should assume that the audience has read the case (but won't remember everything in it); I may suggest further reading for the presenter(s) that others might not get to. Your goal is to set up a productive discussion of the main economic issues arising. To do that, you should seek to identify what those issues are, and what you have been able to learn about them in the time available. You don't have to pretend to know everything: sometimes it's very helpful to identify important lingering questions, whether they're things that you think should have been central to the case but weren't discussed, or whether they are research topics that you might pursue or think someone should.

Presentations are assessed both on content and communication. There is no need for presentation glitz, though if slides or a handout will help communicate your points you should use them. Clarity and logical organization are key.

Remember that there is far more to be said about any case (or topic) than 20-30 minutes allows; I will look for thoughtful selection of topics as well as for insightful things said about each.

Each presenter (or pair) should talk to me or email me no later than 10am the previous day, saying what handful of (i.e., usually 2-4) main points you plan to make. If you get it to me significantly earlier I will try to respond helpfully (I'll *try* even if you barely make it, but am less likely to succeed), but I also use this to help plan my in-class comments to follow up on your presentation.

Not presenting a case for the class: You are still expected to read it and think about it. To encourage this activity, give me feedback on how sophisticated you are getting, and give me something to grade, you should get to me, no later than 10am the previous day, a very short memo on one of the cases for the day—what you find interesting, significant, puzzling about it. This doesn't have to be a big deal: it can be less than a page, for instance. But something reflecting a bit of thought and giving me a hint about what angles on the case you would find interesting to have the class follow up.

This structure puts the theoretical framework before the case studies. It is not obvious whether this is the right way round. Students in previous years have had differing views. We will try it the other way around next, and then I will be happy to hear your views on which seems likely to work better in future this year.

To start the next topic (competition-softening practices other than agreements), then, we'll have *pre-theory* presentations of Kwoka-White case 9 (Borenstein: airline tariff publishing), and the FTC's tetraethyl lead case. To read about the latter, go to OUP's web site for cases that used to be, but no longer are, in KW: www.oup.com/us/antitrustrevolution, and find the "Ethyl" case study by George Hay. If we don't get through these on Jan. 30, we'll just use them to kick off the next class, so they will still precede the theory, but not by a week.

Class 4 (Feb. 6): Competition-softening practices [theory after cases this time].

Read beforehand:

Arbatskaya, Hviid, Shaffer, on price matching:

<http://www.journals.uchicago.edu/JLE/journal/issues/v47n1/470111/470111.web.pdf>

Farrell and Klemperer, "Competition with Lock-In",

<http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1058&context=iber/cpc>, sections I (short introduction) and II (switching costs).

Justine Hastings, "Vertical Relationships and Competition in Retail Gasoline Markets," *American Economic Review* 2004.

Sass and Sauerman, "Mandated Exclusive Territories..." *Journal of Law and Economics* 1993.

Questions include:

What can/should competition agencies do about practices that soften competition *without* collusion? How reliably can one diagnose such practices?

How does the concept of competition-softening relate to the concept of “facilitating collusion” or “facilitating coordinated pricing”? How might one find out which is more important?

Why is there so much less on this topic in Kaplow-Shapiro and Whinston than there was on collusion or is (as you’ll soon note) on horizontal mergers?

Class 5 (date TBA⁶): A start on Horizontal Mergers

Undermining the concept of “in which order” to do cases/theory, we’ll start with some cases, but I’ll use them as a springboard to plunge into theory more than I did (or planned to) in earlier weeks. This will mean fewer cases per class. For this class, I’d like *presentations of*:

Kwoka-White cases 2 (Dalkir/Warren-Boulton: Staples) and 4 (Pelcovits: MCI-Sprint).

Read beforehand (in addition to the cases):
Kaplow-Shapiro section IV;
Whinston chapter 3, sections 3.1 to 3.3.

Questions include:

(When) (how) is market definition a helpful thing to do in assessing a horizontal merger?

Why shouldn’t horizontal mergers be per se [always] illegal, since one could say they always reduce competition to some degree?

Class 6 (Feb. 20): More Horizontal Mergers

Presentations of: K-W cases 6 (Baker: Heinz) and 5 (Bulow/Shapiro: BP-Amoco).

Read beforehand (in addition):
Whinston, remainder of chapter 3.

[...]

⁶ I may well be in DC on the 13th (should know very soon); if so, how about: **Class 5 (Thursday Feb. 15—same time, same place if available)?** (That’s a question, not yet an announcement.)

Regulation.

The regulation part of the class is organized around three themes:

- traditional price regulation to control monopoly power;
- non-price, primarily health-and-safety regulation;
- transitions and boundaries between regulation and deregulated competition.

The first is the main topic of the “economics of regulation” literature of the 1980s. At the policy level it is pretty unfashionable now. Should it be? The second theme is largely about defects of private contracts—why don’t workers or consumers bargain for their own health and safety—and what can be done about it? The third theme is the theme of 1990s/2000s “economics of regulation,” and a big issue in (for instance) telecom and electricity.

Term Paper Requirement

A term paper is due one week after our last scheduled class, i.e., on May __. You will soon be (or already are) writing a dissertation, and I’m sure professional writing features in your future, so learning to do it is important and in my view isn’t well taught by the standard system, so I want to help with that. To make that work well, of course I’m happy to talk to you in office hours or as you can catch me, but that’s not enough: we need a scheduled interaction as well. So, working backwards, here are required term-paper mileposts:

At least two weeks before final paper due, and *three weeks* if your paper isn’t drawing heavily on class material on regulation: A “highly informative draft.” By that phrase I mean roughly: a draft that I can read reasonably efficiently (it’s organized, clear, and pretty good at communicating what you’re doing), and that is far enough along so that any helpful or critical comments I’m likely to have on your final draft should already surface when I read this one. I will aim to read these quite quickly and offer feedback. This may involve written comments and/or a meeting.

Two weeks before that: also in writing, a road map: a clearly defined question that you expect to be able to answer (this includes, but is better than, just a “topic”) and a clear outline of what you are doing (yes, you should already be doing it). The goals at this point are (a) to make sure you’re not leaving things to the last weeks, (b) to let me help.

Grading. I am not keen to waste educational resources on grading, especially for graduate students, but here is how I will grade as and when I have to:

Term paper: 50%

Presentation(s): 20%

Other assignments and class participation: 20%. In this regard it’s worth making sure I know who you are. I am not good at names and faces, so please introduce yourself multiple times.

The term paper is graded along the same lines as a professional publication—not that it has to be “publishable”, but the goals are the same qualitatively if not quite as ambitious. In particular this does reflect reality in that bad writing makes a bad impression.