ECON 241A-1
Antitrust Economics: Regulating Competition

Course Syllabus

Spring 2018
Mondays 9:30 am to 12:20 pm

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Course Description

**COURSE OBJECTIVES**
This is a course on antitrust economics and economic regulation. The first part of the course will introduce the student to the economics of antitrust and to the economic theories and tools needed to understand and conduct antitrust policy analysis. The student will learn how to define relevant product and geographic markets, assess market power within those markets and evaluate competitive conduct; apply the Department of Justice and Federal Trade Commission merger guidelines to evaluate the likely effects of proposed mergers; identify vertical restraints (e.g., exclusive dealing, resale price maintenance, etc.) and assess their welfare impact as well as the welfare impact of vertical mergers; identify anticompetitive exclusionary practices (e.g., predatory pricing and conduct, monopolisation practices, etc.) and distinguish them from actions that are pro-competition.

The second part of the course will focus on economic regulation and introduce the student to the theory and practice of economic regulation involving the basics of natural monopoly regulation as applied to public utilities such as energy and telecommunications. The student will learn the basics of rate-of-return regulation and optimal public utility tariffs and key competition issues in the energy, telecommunications and the transport sector.

**TEXTBOOKS**


**COURSE REQUIREMENT**
Grading will consist of one midterm exam, one final exam, a research paper and class participation (including a short presentation). The paper will be due the last week of class. Success in this four-credit course is based on the expectation that students will spend a minimum of 9 hours of study time per week in preparation for class (readings, papers, discussion sections, preparation for exams, etc.).

**EXAMS**
The midterm will be given in week 9 of the course, at the end of the first part of the course on antitrust economics. The final exam will be given during the finals period. The exams will consist of hypothetical antitrust and regulatory economic problems in which you will be asked to use the economic concepts and tools learned in the class to conduct economic analysis and to reach policy decisions.

The midterm will count for 15% (15 points) of your grade and the final will count for 15% (15 points) of your grade.
**RESEARCH PAPER**
The research paper will count for 40% (40 points) of the grade and is due the last week of class. There are several types of paper you can write.

- The first is selecting a current, timely topic that is being considered by antitrust or regulatory agencies in the U.S. or other countries. You can assume the role of the regulatory agency or the role of company and utilize the economic theories and tools learned in class to conduct economic analysis and reach a conclusion. Alternatively you can provide both sides of the case and discuss the strengths and weaknesses of each and provide your opinion, backed up by economic analysis, on which side is stronger. Examples include (but definitely not limited to), the current proposed merger between AT&T and Timer Warner, the proposed merger between Aetna & Humana Inc., the current investigation of DirecTV in anticompetitive actions involving broadcasting of Los Angeles Dodgers, investigation of Google by the European Antitrust authorities, and many others;

- A second approach is to select a topic that has already been decided by the agency and critically assess the agency’s decision. In this case, students will have to take the position of one of the adverse parties and put together an “appeal” of the specific decision. Examples include the *U.S. v. Standard Oil*, *U.S. v. AT&T-T-Mobile* merger rejection in 2011, or the imposition of Net-Neutrality obligation on broadband providers by the FCC in 2015. You can also include cases that have been approved but which you believe has harmed competition, such as the American Airlines –US Airways merger;

- A third approach is to create a hypothetical antitrust or regulatory case and use the theories learned in class as well as publicly-available data to conduct economic analysis and reach conclusions. Examples include: a hypothetical merger between Uber and Lyft, between Facebook and Google, between McDonalds and Burger King; or it can include topics such as: Does Amazon have antitrust market power? Should broadband providers be regulated by the FCC? Has competition in retail electricity worked?

Typical papers should run between 10 – 15 pages. I encourage you to begin early thinking about a topic and come see me early with potential ideas to brainstorm and provide me with an outline of your research paper.

Please be sure to **cite your sources and provide references.** All direct quotes, specific data, paraphrased text, all tables and graphics, and important arguments should be properly sourced with foot- or end-notes; a bibliography can be used as reference for general discussions. I downrate papers because of insufficient referencing. I follow the university policy, described below, on plagiarism and academic dishonesty.

**CLASS PARTICIPATION & PRESENTATION**
Participation will be 30% (20 points) of the final grade and consists of three parts: class participation, one presentation during class and written comments/questions on the assigned class readings.
15% (10 points) of the final grade will be for general class participation throughout the semester. You are expected to review the readings prior to class and to be prepared to participate in class discussion.

10% (10 points) of the final grade will consist of one short presentation during class (about 10 minutes). The student has two options.

1. Each class I will ask for volunteers with examples of any current antitrust or regulatory proceedings, taken from newspapers, trade press, blogs, etc. The student is expected to describe and summarize the facts, identify the antitrust or regulatory issue or issues at hand (e.g., a horizontal/vertical merger, vertical restraint, coordinated behaviour, anticompetitive act, market power, etc.) and provide thoughts on likely policy conclusions and/or economic evidence required in order to reach policy conclusions;

2. Presentation of your research topic to the class. The purpose of the presentation is to help you begin early on thinking about a paper topic and receiving input from me and the class that will assist you in writing the paper. The presentation should include a description of the relevant facts of the case, identification of the antitrust or regulatory economic issues, and possible thesis of the paper (both pro Plaintiff and pro Defendant) or economic evidence required in order to be able to reach conclusions.

In each case, please reach out to me on what you will present and when you would like to present so that we can schedule a manageable number of presentation each lecture.

5% (5 points) of the final grade will be for submitting “Thoughts and Questions” (“TQ”) on the readings. Each week I will ask general purpose open-ended questions and/or open-ended questions that are tailored to specific issues in the reading. The students’ TQs should not be long (e.g., one to three paragraphs). I will use them to generate discussion and/or deal with conceptual problems or confusion in the readings. The minimum requirement is to submit 5 TQs throughout the semester in order to receive the 5 points. Additional TQs (beyond the 5) will help determine borderline final grades.

**PREREQUISITE**
The prerequisite for this class is Econ 80a or Econ 207a (managerial economics).

**LEARNING GOALS**
Students who take this course will be able to

- Understand the origins of and reasons behind antitrust regulation
- Define and determine if a firm has market power using a variety of methods
- Determine the competitive effects of mergers and acquisitions
- Help identify when company conduct is anticompetitive and when it is pro-competition;
- Examine the history and logic behind the pricing and regulation of utility services in the United States, as well as the methodologies to determine such prices
- Examine competitive issues with energy, telecommunications and the transport sectors
Contacts

Email is the quickest way to reach me; I usually respond promptly. You will also be expected to check your Brandeis email regularly, as I will send out notices to class from time to time. Please read those promptly in case they refer to changes in assignments or corrections to the assignments.

I will have open office hours in my office on Fridays from 1:00 to 4:00 pm, immediately following the lecture.

Academic honesty: You are expected to be honest in all of your academic work. Please consult Brandeis University Rights and Responsibilities for all policies and procedures related to academic integrity. Students may be required to submit work to TurnItIn.com software to verify originality. Allegations of alleged academic dishonesty will be forwarded to the Director of Academic Integrity. Sanctions for academic dishonesty can include failing grades and/or suspension from the university. Citation and research assistance can be found at LTS - Library guides

If you are a student with a documented disability on record at Brandeis University and you wish to have a reasonable accommodation made for you in this class, please see me immediately. Please keep in mind that reasonable accommodations are not provided retroactively.
SCHEDULE

The schedule below contains the topics and readings for each week. While the topics will generally not change I may occasionally alter the readings but will make sure that the student has sufficient time to complete them prior to class (at least 72 hours). I may also send around relevant press articles prior to the class.

Week 1: Introduction to antitrust and regulation and review of industrial organization and market competition principles

Part I: We will begin with a review of the course, the objectives, and requirements and a discussion on antitrust and regulatory economics. This will be followed by a discussion of a hypothetical merger between United and American airlines in order to introduce the students to the intuition, theory and practice behind antitrust merger analysis.

Part II: We will then begin a review of industrial organization theory and provide a review of the relevant industrial organization concepts covered in the prerequisite course Econ 80 or Econ 2017. We will begin with a review of economic efficiency and welfare analysis and examine perfect competition, monopoly pricing and the Lerner Index, and monopolistic competition.

Readings:

- Motta, Chapter 1 (Section 1.3) Chapter 2 (Sections 2.1 through 2.4);
- Viscusi et al., Chapter 1 & Chapter 4 (Section on “Economic Efficiency”);

Week 2: Continuation of introduction to antitrust and review of industrial organization and market competition principles

Part I: We will continue our introduction of antitrust by beginning with a review of U.S. v. Google and ITA Software (2011) and a discussion of the proposed AT&T–Time Warner merger. We’ll discuss any interesting antitrust or regulatory topics that have been written about in the press during the week.

Readings:

- Trade press article on proposed AT&T–Time Warner merger;
Part II: We will continue our review of competition principles by discussing oligopoly theory (Cournot and Bertrand) and highlighting the underlying assumptions of the models and highlight important economic concepts that are fundamental in antitrust analysis such as: fixed costs, economies of scale & scope, concentration measures, product differentiation, barriers to entry and expansion, and information asymmetries.

Readings:

• Viscusi et al., Chapter 5 (Section on “Oligopoly Theory”) and Chapter 6 (Sections on “Market Structure” and “Dominant Firm Theory”);

Week 3: Anti-trust history and principles

Part I: We will begin with a review of one of the most influential antitrust case in U.S. history, U.S. v. Standard Oil (1911). We’ll discuss any interesting antitrust or regulatory topics that have arisen during the week. We’ll get to a couple student paper topic presentations.

Readings:


Part II: We will then examine the genesis and evolution of antitrust laws primarily in the U.S. We will begin with the Sherman Act in 1890 examining Sections 1 and 2 as well as economic reasons leading to the Clayton Act and the Federal Trade Commission Act of 1914. We continue our review of antitrust history by examining U.S. antitrust policy as it has evolved throughout the 20th-century, with periods of relative laisse-faire approach to anti-trust enforcement followed by more activism and intervention in market transactions, and moving back to less intervention as exemplified in the Chicago-school approach to antitrust, and reviewing current approach to antitrust.

Readings:

• Motta Chapter 1 (Sections 1.1 – 1.2);

• Viscusi et al., Chapter 3 (Sections on “Antitrust” and “Appendix”);

Week 4: Market definition in antitrust analysis

How do antitrust regulators determine if a firm has broken antitrust laws? An important starting point is a definition of the relevant antitrust market in which to assess the antitrust laws. Is the Apple iPhone in the same product market as the Samsung Galaxy for purposes of antitrust market definition? We will discuss the economic theory and practice of market definition.

Part I: We will begin with a review of market definition issues in *U.S. v. Staples-Office Depot* (1997) failed merger attempt. We’ll discuss any interesting antitrust or regulatory topics that have arisen during the week. We’ll get to a couple student paper topic presentations.

Readings:


Part II: What does economic theory have to say about market definition and how are economic markets defined by the anti-trust agencies? We will analyse concepts such as product and geographic market definition and the hypothetical monopolist test (SSNIP test).

Readings:

- Motta, Chapter (Sections 3.1 & 3.2);

Week 5: Market power in antitrust analysis

A fundamental concept in antitrust analysis is market power. Firms that possess market power in a relevant antitrust market are exposed to potential antitrust liability if they engage in anticompetitive conduct. The determination of market power is the result of applying basic economic principles to the relevant facts at hand and is not a straight-forward formulaic approach. We will discuss the economic theory and practice of market power analysis.

Part I: We will begin with a discussion of whether large companies such as Amazon, Google, Facebook, Apple, have market power. We will also review the case of *U.S. v. Microsoft* (1999) to understand the arguments regarding Microsoft and market power.
We’ll discuss any interesting antitrust or regulatory topics that have arisen during the week. We’ll get to a couple student paper topic presentations.

Readings:


Part II: What does economic theory have to say about market power determination? We will analyse concepts such as traditional (indirect) assessment of market power, derive and discuss the Lerner Index, and discuss the importance of barriers to entry.

Readings:

• Motta, Chapter 3 (Section 3.3);

• Viscusi, et al. Chapter 9 (Section on “Establishing Monopolization Claims,”);


Week 6: Merger theory

Would antitrust regulators be concerned if AT&T and Verizon announced a merger? What about Uber and Lyft? We will learn how to think about the competitive effects of potential mergers like these.

Part I: We will begin with a review of the FTC v. Staples and Office Depot (2016). We’ll discuss any interesting antitrust or regulatory topics that have arisen during the week. We’ll get to a couple student paper topic presentations.

Readings:


Part II: We’ll begin by exploring why horizontal and vertical mergers occur and their welfare effects. We will examine the economic theory of horizontal mergers and discuss the unilateral effects that naturally occur with each merger and determining which mergers should be considered illegal for U.S. antitrust purposes. In addition to unilateral effects of mergers, the merger may permit a greater opportunity for the remaining firms to coordinate their behaviour and reach anticompetitive agreements.
Readings:

- Motta, Chapter 5 (Sections 5.1 through 5.3 & 5.5);
- Viscusi et al. Chapter 7;

Week 7: Merger practice

We’ll continue our review of merger by examining how the antitrust agencies approach mergers from a practical perspective.

**Part I:** We will begin with a review of *U.S. v. AT&T—T-Mobile* (2011). We’ll discuss any interesting antitrust or regulatory topics that have arisen during the week. We’ll get to a couple student paper topic presentations.

Readings:


**Part II:** We’ll explore the Department of Justice and Federal Trade Commission *Horizontal Merger Guidelines*.

Readings:


Week 8: Vertical restraints & monopolistic practices

Why would an electricity generation company decide to purchase a natural gas pipeline and would antitrust regulators object? Is it economically appropriate for the Ford Motor Company to prohibit its dealers from selling a Ford Fusion below a certain price, or prohibiting a dealer from selling in certain parts of a geographic territory?

**Part I:** We’ll discuss a case involving exclusive dealings *Toys “R” Us Inc. v. Federal Trade Commission* (2000) and similar issues involving hardware office superstores Home Depot and Lowe’s. We’ll discuss any interesting antitrust or regulatory topics that have arisen during the week. We’ll get to a couple student paper topic presentations.

Readings:

**Part II:** We will examine the economic theory behind vertical restraints. Understanding vertical restraints requires an understanding of economic concepts such as intra-brand and inter-brand competition, double marginalization, and resale price maintenance. We will also analyse potentially monopolistic practices such as exclusivity, leverage and foreclosure, predatory pricing and conduct, strategic investment, bundling and tying, refusal to supply, raising rivals’ costs, and price discrimination.

*Readings:*

- Motta, Chapter 6 (Sections 6.1 through 6.3) & Chapter 7 (Sections 7.1 through 7.4);
- Viscusi et al. Chapter 8 (Section on “Vertical Restraints”) & Chapter 9 (Sections on “Predatory Pricing,” “Refusal do Deal and the Essential Facilities Doctrine,” and “Price discrimination and the Robinson-Patman Act”);

**Week 9: Mid-term exam**

**Part I:** Mid-term exam

**Part II:** Extended office hours to discuss paper questions that students have

**Week 10: Economic regulation history and theory**

Prices that consumers pay for their electricity, natural gas and water service are usually determined and regulated by regulators in the state’s Public Utilities Commission. Some regulators throughout the world still regulate the prices of telephone services. What is the economic theory behind the economic regulation of some sectors of the economy?

**Part I:** We’ll begin with a review of the FCC’s 2015 *Net-neutrality* decision to introduce regulatory economic topics. Well discuss any interesting antitrust or regulatory topics that have arisen during the week. We’ll get to a couple student paper topic presentations.

*Readings:*

Part II: We will elaborate on the theory of natural monopoly as a basis for economic regulation and discuss linear, non-linear and Ramsey pricing, the problem faced by regulatory commissions and provide a brief history of public utility regulation in the U.S., the evolution of the process over time and learn about pivotal Commission decisions and court rulings that currently shape public utility regulation.

Readings:

• Viscusi et al., Chapters 10 – 11;

Week 11: Public utility pricing

How exactly do regulators set prices for the firms that they regulate? We will discuss the major steps of the process and how it is undertaken in public utility Commission rate cases.

Part I: We’ll begin with a discussion of an important, recent Supreme Court decision involving electricity markets. We’ll discuss any interesting antitrust or regulatory topics that have arisen during the week. We’ll get to a couple student paper topic presentations.

Readings:


Part II: We’ll begin with a discussion of rate-of-return regulation, a method by which the regulated firm is permitted the opportunity to recover sufficient revenues to cover its expenses and provide a competitive return on its invested capital, and other forms of regulating utility prices such as incentive regulation. We’ll examine issues such as peak-load pricing, fully-distributed pricing, and marginal cost pricing.

Readings:

• Viscusi et al., Chapter 12, (NOT including section on “Regulation and Restructuring of Electric Power”);

Week 12: Telecommunications

The telecommunications sector provides an excellent source for investigation and discussion of the theory of regulation and how the evolving and changing nature of technology and demand affects competition and regulation.

**Part I:** We’ll begin with a review of *U.S. v. AT&T* (1982) which led to the divestiture of AT&T. Although the case is an antitrust case it highlights the important role that economic regulation played in the sector and case throughout the 20th century. We’ll discuss any interesting antitrust or regulatory topics that have arisen during the week. We’ll get to a couple student paper topic presentations.

*Readings:*


- Viscusi et al., Chapter 15;

**Part II:** Telecommunications provides a good example of the effects of regulating potentially competitive markets and we’ll examine these issues from a theoretical perspective.

*Readings:*

- Viscusi et al., Chapter 16;


Week 13: Case study: Energy

In Massachusetts (as in many other states) you can select your electricity generation company, how has that happened and has this been a good thing? We will discuss the competition transition that has shaped former natural monopolistic sectors of electricity and natural gas. A key aspect of this transition, and one that distinguishes it from other competitive sectors, is that competition may be feasible for certain portions of the sector but not others. Electricity generation is potentially competitive, but not so for electricity distribution. We will discuss the
important implications of this and discuss important topics such as essential inputs and their pricing.

**Readings:**

- Viscusi et al., Chapter 12 Section on “Regulation and Restructuring of Electric Power” and Chapter 18 (Sections on “The Theory of Price Ceilings,” and “Price Regulation of the Natural Gas Industry,”);

- Severin Borenstein and James Bushnell, “The U.S. Electricity Industry After 20 Years of Restructuring,” Energy Institute at Haas available at: https://ei.haas.berkeley.edu/research/papers/WP252.pdf;