

Industrial Organization

Module 2, 2017-18

Lecturer: Grigory Kosenok
New Economic School, Moscow
gkosenok@nes.ru

Course information

Course Website: <http://www.nes.ru/ru/programs/econ/acad-progr/>

Instructor's Office Hours: Monday, 17:00-18:00

Class Time: Tuesday, 13:45-15:15, 15:30-17:00

Room Number: 3.13

TAs: Vladislav Baibakov

Course description

The course analyzes the problems of the economy. We study the interactions of consumers and firms. The topics studied are listed below.

Course requirements, grading, and attendance policies

Students are assumed to have sufficient background in microeconomics and game theory. There are 14 lectures and 7 seminars. The final grade is based on open book final exam.

Course contents

Week 1,2: Collusion

[1] Green, E. and R. Porter, "Noncooperative Collusion under Imperfect Price Information", *Econometrica*, 52, 1984, 87-100

[2] Abreu, D., D. Pearce and E. Stachetti, "Optimal Cartel Equilibria with Imperfect Monitoring", *Econometrica*, 52, 1984, 251-269

[3] Rotemberg, J. and G. Saloner, "A Supergame-Theoretic Model of Business Cycles and Price Wars During Booms", *American Economic Review*, 76, 1986, 390-407

[4] Kosenok, G., "Efficient Collusion with Private Monitoring", Working paper, 2005

Week 3: Merger and Acquisition

[5] Farrel, J., and C. Shapiro, "Horizontal Mergers: An Equilibrium Analysis", *American Economic Review*, vol. 80, 1990, 107-126.

[6] Salant S.W., S. Switzer, and R.J. Reynolds, "Losses from Horizontal Merger: The Effects of an Exogenous Change in Industry Structure on Cournot-Nash Equilibrium", *Quarterly Journal of Economics*, vol. 98, 1983, 185-199.

Week 4,5: Advertising

[7] Butters, G., "Equilibrium Distribution of Sales and Advertising Prices", *The Review of Economic Studies*, 44, 1977, 465-491

[8] Klein, B. and K. Leffler, "The Role of Market Forces in Assuring Contractual Performance", *Journal of Political Economy*, 89, 1981, 615-641

[9] Grossman, G. and C. Shapiro, "Informative Advertising with Differentiated Products", *Review of Economic Studies*, 51, 1984, 63-82

[10] Milgrom, P. and J. Roberts, "Price and Advertising Signals of Product Quality", *Journal of Political Economy*, 94, 1986, 796-821

[11] Bagwell, K. and G. Ramey, "Coordination Economies, Advertising and Search Behavior in Retail Markets", *American Economic Review*, 84, 1994, 498-517

Week 6,7: Durable Goods

[12] Bulow, J., "Durable Goods Monopolists", *Journal of Political Economy*, 15, 1982, 314-332

[13] Gul, F., H.Sonnenschein and R. Wilson, "Foundations of Dynamic Monopoly and the Coase Conjecture", *Journal of Economic Theory*, 39, 1986, 155-190

[14] Lazear, E., "Retail Pricing and Clearance Sales", *American Economic Review*, 76, 1986, 14-32

[15] Ausubel, L. and R. Deneckere, "Reputation in Bargaining and Durable Goods Monopoly", *Econometrica*, 57, 1989, 511-531

[16] Kahn, C., "The Durable Goods Monopolist and Consistency with Increasing Costs", *Econometrica*, 54, 1986, 275-294

[17] Fehr, N. and K. Kuhn, "Coarse vs Pacman: Who eats Whom in the Durable-Goods Monopoly", *Journal of Political Economy*, 103(4), 1995, 785-812

Description of course methodology

A typical lecture includes two parts. In the first part we recollect the background material for the paper under study. During the second part of the lecture we discuss the paper.

Sample tasks for course evaluation

This is an open-book exam (based on the paper of Pilky Hong, Preston McAfee and Ashish Nayar "Equilibrium Price Dispersion with Consumer Inventories", *Journal of Economic Theory*, 2002). You have two hours. The total number of points is 100. The value of each question is shown in parentheses. Good luck.

Answer the following short questions about the paper:

- (a) (5) On page 504 the authors say that models of Butters [2] and Varian [10] are essentially static models. Do you agree? Discuss.
- (b) (5) In the footnote 1 the authors mention the Coase Conjecture. What is the Coase Conjecture? Write down a brief definition.
- (c) (5) From your point of view explain the choice by the authors the term “captive” for one type of consumers. Do you consider yourself to be a shopper or a captive? Why?
- (d) (5) How many types of economic agents are in the model? Why are the consumers, who visit only a single store but stock up when prices are low, not considered in the model?
- (e) (5) According to formulas (2) and (3) what do shoppers do when they face the minimal price equal to p^c ?
- (f) (5) Find at least two typos in the proof of Lemma 1.
- (g) (5) Provide the correct formula for (4).
- (h) (10) Suppose that the government collects from produces per unit tax in amount of t . Restate Lemma 1 for this case.
- (i) (10) Is it possible to have an equilibrium where the shoppers follow to p^{c_0} at state 0 and p^{c_1} at state, $p^{c_0} \neq p^{c_1}$? If this is possible, rewrite the proof of Lemma 1 for this case.
- (j) (10) What is the economic meaning of variable μ_0 , which is expressed in the form of integral in the proof of Theorem 1?
- (k) (15) Suppose that at some time period there are two firms. Each firm charges price according to uniform distribution on $[0,1]$. Also let $c=1$ and $s=1$. Each consumer buys only one unit of product. Find the expected average price of the product bought at this time period.
- (l) (10) Suppose that there is a free entree into the market. Also suppose that captives are distributed equally among all firms on the market. Derive the limiting strategy of a firm when the number of firms on the market tends to the infinity
- (m) (10) Suppose that in the economy there is a hyperinflation. Under the hyperinflation what predictions of the model out of four (on page 513) might be violated?

Course materials

Required textbooks and materials

Shy, O., “Industrial Organization”, The MIT Press, 1995

Additional materials

Martin, S., “Advanced Industrial Economics”, Blackwell, 1993

Academic integrity policy

Cheating, plagiarism, and any other violations of academic ethics at NES are not tolerated.