



Stockholm
University

Department of Economics

Course name: **Antitrust and Regulation**

Course code: **EC7114**

Examiner: **Sten Nyberg**

Number of credits: **7,5 credits**

Date of exam: **Wednesday 26 October 2016**

Examination time: **3 hours [09:00-12:00]**

Write your identification number on each answer sheet. Use the printed answer sheets for all your answers. Do not answer more than one question on each answer sheet.

Use one cover sheet per question. Explain notions/concepts and symbols. If you think that a question is vaguely formulated, specify the conditions used for solving it. Only legible exams will be marked. **No aids are allowed.**

The exam consists of x questions. Each question is worth z points, 100 points in total. For the grade E 45 points are required, for D 50 points, C 60 points, B 75 points and A 90 points.

Your results will be made available on your "My Studies" account (www.mitt.su.se) on November 16th at the latest.

Good luck!

Question 1

A competition authority reviews a horizontal merger on a market with differentiated products and price competition. All firms have a 30 percent mark-up (= Lerner index). The merger does not give rise to any efficiencies.

- a) The authority's preliminary definition of the relevant market consists of 5 symmetric firms. Calculate the HHI for this market.
- b) Market evidence suggests that a 10 percent price increase would result in a 20 percent loss of demand for the hypothetical monopolist. Does the authority's market definition pass the Critical Loss test?
- c) Suppose other firms will keep their prices constant, and that the diversion ratios between the merging parties are symmetric and equal to 0.25. Calculate the indicative price rise under the assumption that demand is linear.

Question 2

After firm B, enters the market the incumbent, firm A, first responds by cutting its price aggressively, from 100 to 45.

- a) Firm B accuses firm A of predatory pricing. Is firm B right? Assume that firm A's cost is given by $C = 40.000 + 10Q$ and its current sales is $Q = 1000$.

Suppose firm A drops its aggressive pricing strategy and sets $P = 100$ for its services. Since firm A is an unavoidable trading partner for 60% of the market, and faces competition from firm B only on the remaining 40%, it decides to instead try out an aggressive rebate scheme.

- b) Calculate the effective price for firm B if firm A offers a retroactive rebate of 20 % if customers buy all their services from it.
- c) Could the above rebate scheme cause foreclosure? Suppose the competitor's average avoidable cost, at the expected volume of sales, is 55 per unit of services.

Question 3

A regulator implements a linear cost based regulation, $p(c) = a + bc$ with $a > 0$ and $b > 0$. Demand is constant and equal to 1, and the cost of producing this output is $c = \theta - e$. θ is a cost parameter taking the values 2 and 4 with equal probability, and e is the firm's effort to reduce cost, neither of which is observable by the regulator. The cost of effort is $\frac{1}{2} e^2$.

- a) Determine the firm's optimal effort as a function of b .

The regulator maximizes $W = C.S. + \gamma\pi$ where C.S. is consumer surplus, π is firm profit and $0 \leq \gamma \leq 1$ is the weight on profit.

- b) Suppose $b = 0.5$ (which is optimal if $\gamma = 0.5$). What is the expected rent, $E(\Pi)$, assuming the regulator sets a so that the inefficient firm breaks even? (Hint: Use the formula in the lecture notes. Alternatively, calculate a , given the break-even condition, derive the efficient firm's profit, and weigh this with the probability of having low cost).
- c) What would the optimal b be if $\gamma = 1$? (No need to calculate, just explain).
- d) Explain how Yardstick competition works and how it could help to reduce rents.

Question 4 (Essay question)

Discuss Williamson's critique of the view of franchise bidding championed by Demsetz and others. What are the main problems according to Williamson, and how are they reflected in Oakland CATV case?