Practice problem set 23

Industrial policy

This problem set constitutes recommended material for the relevant lab. The choice of tasks to be presented instructionally in every lab is in the discretion of the individual teacher. Students are expected to work on practice problems, however, are not required to submit written solutions. It is non-negotiable policy in this course to not provide hand-outs with the solutions of practice problem sets.

1. Firms A and B are Cournot duopolists producing a homogeneous good. Inverse marker demand is $P = 100 - Q$, where P is market price and Q is the market quantity demanded. Each firm has marginal and average cost $C = 40$.
   (a) The two firms propose to merge. Derive total output, market price, profit and consumer surplus before the merger and after the merger. Explain intuitively any changes you see to these variables when the merger occurs.
   (b) A regulator for this market has objective function $W = \lambda\Pi + (1 - \lambda)CS$, where Π is industry profit, CS denotes consumer surplus and λ is a constant, $0 \leq \lambda \leq 1$. Will a regulator with $\lambda = 0$ permit the merger? Will a regulator with $\lambda = 1$ permit the merger? Interpret these two regulatory stances and explain the implications of your answer for competition policy. At what level of λ would the regulator be indifferent to the merger?
   (c) The firms now claim that there will be efficiency gains to the merger, so that the marginal cost of production will fall to $C = 30$. How does this affect your answer in part (b)? Explain the implications of your answer for competition policy.

UoL: 2009 za

2. Consider a homogeneous Cournot oligopoly with N firms and inverse demand function $P = a - Q$, where Q is the total output in this industry. Each firm has zero fixed cost and marginal cost equal to $c < a$.
   (a) Find the equilibrium quantity (q), price (p) and profit (π) for each firm, as functions of N and the other parameters.
   (b) Show that the total industry profit (Π) decreases in N.
   (c) Show that the sum of consumer and producer surplus (W) increases in N.
   (d) Assume that two firms in this market merge. Find the effect on Π and on W.
   (e) Assume now that the number of firms is 3. Firms still have zero fixed costs but their marginal costs are now $c_1 < c_2 < c_3 < a$. Then, firms 2 and 3 merge into one firm that has marginal cost equal to c_2. What will happen to Π and to W after the merger?
   (f) Compare the results on W you derived in (d) and in (e). Provide the economic reason for why they compare as such.
   (g) Assume that the merger in (e) does not happen but instead firm 3 simply shuts down. What will happen to Π and to W?
   (h) Compare the results of (e) and (g) and provide some economic intuition why they appear to be such.

End-semester 2 exam – April 2016

3. Describe the difficulties faced by competition authorities in the design and implementation of merger policy. Include in your answer a discussion of the possible economic causes and consequences of mergers.

UoL: 2003 zb / 2010 za/zb

4. 'A major difficulty with the implementation of competition policy stems from the fact that many business practices which unambiguously reduce welfare are difficult to detect, while many business practices which are easy to detect have ambiguous welfare implications'. Discuss.

UoL: 2004 zb / 2008 za/zb

5. The competition law in the country of Wonderland prohibits all mergers that result in a single firm having more than 75% of any market. Do you think the law makes sense? Why or why not? What would your advice be to a new government that proposes to make changes to the law?

UoL: 2005 za / 2011 zb

6. 'It is reasonable for competition policy to be tougher on horizontal mergers than on vertical mergers because the effects of increasing concentration are more ambiguous for vertical mergers.' Do you agree or disagree with this quote? Explain your answer.

UoL: 2013 zb

7. 'Competition policy raises special issues in innovative industries: monopoly power may need to be tolerated and horizontal agreements among firms in such industries should receive special treatment.' Do you agree? Justify your answer with reference to economic theory and any relevant empirical evidence.

UoL: 2014 zb

8. 'Consumers should welcome a firm's offer to meet a competitor's prices, as this guarantees more competitive outcomes in the industry.' Do you agree or disagree with this quote? Explain your answer.

UoL: 2013 zb