

Practice problem set 13

Business strategies

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. It is sometimes claimed that “learning-by-doing” through overproduction is a profitable strategy since it allows firms to reduce their future costs and even deter the entry of rivals. Do you agree?

UoL: 2003 zb #5b / 2007 za #3b

2. An incumbent firm operates a store in a local market and faces the potential entry of a single rival. The entrant’s choices are to enter or to stay out of the market. If the entrant stays out, it earns 1 (the return from the best alternative investment); the incumbent earns 5. If the entrant come in, then the incumbent must decide whether to cooperate with the entrant (both earn a return of 2) or to fight entry (both earn a zero return). What is the subgame perfect equilibrium of this game? Would your answer change if the incumbent operated 20 stores in 20 separate markets, each one subject to potential entry? Explain.

UoL: 2005 za #5b / 2009 za #3b

3. For the last decade European Commission pushes EU member countries to lift entry barriers from markets that traditionally were considered to be government run monopolies. One prominent instance of this process is the market of electricity. As a result, many governments have sold electrical companies to private owners, while allowing the production of electricity to any potential entrant who complies with the EU standards. In those countries, the market is now served by an incumbent monopolist while there are several entrepreneurs who consider entry. Previous research in similar markets has shown that they are characterized by strategic substitutability.

- (a) Assume that the incumbent currently serves the market at a level of investment where cost exhibits economies of scale. Name, describe and explain the strategy the incumbent should use to deter entry.
- (b) Assume that the incumbent currently serves the market at a level of investment where cost exhibits dis-economies of scale. Name, describe and explain the strategy the incumbent should use to deter entry.

End-semester 1 exam – December 2015

4. Consider a deterrence strategy by an incumbent to set pre-entry investment K_I at the level where the potential entrant will not have an incentive to enter. In an effort to determine the appropriate level of K_I , say K^* , the incumbent has to simulate the entrant’s decision.

- (a) If Π_E is the potential profit of the entrant and x_I and x_E are the strategies of the incumbent and the entrant, decompose the response of Π_E to K_I to its three partial effects and label each effect.
- (b) Two of those effects are usually assigned specific values. Explain which ones and why.
- (c) Explain in words what makes the incumbent ‘tough’ or ‘soft’.

End-module 2 Exam – December 2016

5. In a single line answer and reason the following ([Yes / No], because...)
- (a) Can a *fat cat* deter?
 - (b) Can a *puppy dog* deter?
 - (c) Can a *lean and hungry* accommodate?
 - (d) Can a *top dog* accommodate?
 - (e) Can a happy elephant deter?

End-module 2 Exam – December 2016

6. Suppose that market demand is described by $P = 100 - (q_1 + q_2)$ where q_1 is the output of the incumbent firm and q_2 is the output of a potential entrant to the market. The incumbent's total cost function is $C(q_1) = 40q_1$, whereas the cost function of the entrant is $C(q_2) = 100 + 40q_2$, where 100 is a sunk cost incurred to enter the market. The entrant observes the incumbent producing some units of output and expects this output level to be maintained. How much output would the incumbent firm have to produce just to keep the entrant out of the market?

UoL: 2009 za #3a