Written exam for the B.Sc. or M. Sc. in Economics summer 2013

International Economics

Final Exam

June 18, 2013

3-hour closed book exam

All problems must be answered.

Please note that the language used in your exam paper must correspond to the language of the title for which you registered during exam registration. I.e. if you registered for the English title of the course, you must write your exam paper in English. Likewise, if you registered for the Danish title of the course or if you registered for the English title which was followed by "eksamen på dansk" in brackets, you must write your exam paper in Danish.

If you are in doubt about which title you registered for, please see the print of you exam registration from the students' self-service system.

This exam question consists of 3 pages in total including this page.

PROBLEM 1

Determine if the following statements are true or false. Give a short explanation.

1.1 The Leontief Paradox provides evidence against the Stolper-Samuelson Theorem.

1.2 An import quota always has a negative effect on welfare.

1.3 Domestic market failures may be used as an argument against free trade.

1.4 Horizontal foreign direct investment is mainly driven by the desire to locate production near a firm's customer base.

1.5 In a model of outsourcing with three input factors, capital, low skilled labor and high skilled labor, capital outflows may lead to a lower relative wage of low skilled labor.

PROBLEM 2

Imperfect Competition and Firm Responses to Trade. Consider a monopolist that faces a linear demand curve. The cost function of the monopolist is given by a constant marginal cost and a fixed cost ($C = cQ + F$).

2.1 Illustrate graphically how the price, the quantity and the profit of the monopolist are determined.

Assume now that other symmetric firms enter the market such that the market structure is charaterized by monopolistic competition. All firms have the same cost function as above and they now each face a demand function of the form

$$Q = S\left(\frac{1}{n} - b\left(P - \overline{P}\right)\right),$$

where Q is the quantity demanded, S is the fixed total output of the industry, n is the number of firms in the industry, P is the price charged by the firm itself, $\overline{P}$ is the average price charged by its competitors, and $b > 0$ is a constant.

2.2 Discuss the properties of this demand function and how it corresponds to a linear demand function. Explain how the number of firms is determined in a zero profit equilibrium. (Hint: use a diagram showing how the number of firms affect i) average costs, and ii) the price.)

Suppose now that the economy is opened and trade takes place with another country. This implies that an integrated world market is formed such that the market size, S, is increased.

2.3 How does that affect the number of firms? Are there gains from trade?

Assume now that firms are different with respect to their marginal costs, while all other assumptions are unchanged.

2.4 Show graphically how the price, quantity and operating profit depend on the firm's marginal cost. Explain also the existence of a cutoff marginal cost above which firms earn negative operating profits. What are the implications of an increased market size?

2.5 In the real world only a subset of firms within industries export. How can the model explain this fact?