

Written exam for the B.Sc. or M. Sc. in Economics summer 2014
International Economics
Final Exam
August 12, 2014
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.

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

PROBLEM 1

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

- 1.1 Trade benefits the factor that is specific to the export sector.
- 1.2 Countries tend to import goods that are intensive in the factors with which they are abundantly supplied.
- 1.3 In the Heckscher Ohlin model there are aggregate gains from trade and everyone benefits.
- 1.4 A tariff is fully passed on to domestic consumers if the country imposing the tariff is small.
- 1.5 Internationally uncoordinated trade policies may lead to trade wars.

PROBLEM 2

The reciprocal dumping model. Consider a world consisting of two identical countries, Denmark and Sweden. There is one firm in each country producing a homogenous product, z , with constant marginal costs $c = 1$. Demand in each country is given by $p = 9 - z$, where p is the price of z . Consider first the situation without international trade.

- 2.1 State the Danish firm's profit maximization problem and find the profit maximizing price, p^M , quantity, z^M , and profit level π^M . Show that welfare, measured as the sum of profits and consumer's surplus, equals 24.

International trade is now possible, and the Danish and Swedish markets for good z are characterized by Cournot competition. The quantities sold by the Danish firm for the Danish and Swedish markets are denoted x and x^* respectively. Likewise, the quantities sold by the Swedish firm are denoted y and y^* , such that the total quantity sold in Denmark is given by $z = x + y$, and the total quantity sold in Sweden is $z^* = x^* + y^*$. Markets are segmented by iceberg transport costs $g < 1$, so that $\frac{1}{g} > 1$ units must be shipped for 1 unit to arrive.

2.2 State the Danish and Swedish firm's profit maximization problems and derive their reaction functions for the Danish market. Illustrate the reaction functions in a diagram with x and y on the axes.

2.3 Find the Cournot Nash equilibrium price and quantities. What is the condition for trade to take place? Interpret this condition.

Assume now that $\frac{1}{g} = 2$.

2.4 Find the welfare level for Denmark (hint: use that the solutions are symmetric in the two countries). Are there gains from trade?

2.5 Use a diagram to illustrate and explain conflicting trade effects on welfare (the pro-competitive effect and waste due to transport costs). What effect dominates according to empirical evidence?