Written Exam for the B.Sc. or M.Sc. in Economics winter 2013-14

International Trade and Investment

Final Exam/ Elective Course/ Master's Course

17th December 2013

(3-hour closed book exam)

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 2 pages in total

Question 1:

Consider a capital abundant economy with three goods (1, 2, 3), all homogeneous and produced with constant returns to scale, and three internationally immobile factors of production (land, T, capital, K, and labour, L) with the factor prices *h*, *r* and *w* respectively. Let good 1 be land intensive, 2, capital intensive and good 3 labour intensive. The equilibrium is determined by the usual conditions of zero profit, full employment and market clarification.

a) Use the zero-profit condition (and Jone's algebra) in order to derive a generalisation of the Stolper-Samuelson theorem.
b) Discuss whether the generalisation is as strong as in the 2-by-2 case and explain by using a trade shock such as an increase of the price of good 1.
c) Assume that the economy is in a trade equilibrium and within the set of factor price equalisation. Give an account of the product mix and the specialisation pattern of this economy. Describe the underlying conditions supporting your answer.
d) Drop one factor of production (land) so that we face an uneven case with more goods than factors. How would your answer in c) change. Use a Lerner diagram in order to support your answer (explain the different parts of the diagram with words).

Question 2:

The heterogeneous-firms model in international trade:

a) Most trade models (such as the HO or the NTT models) use a representative firm approach, which implies that firms within sectors should behave in a similar way. Give some examples (at least three) of new stylised facts calling into question the representative-firm models in international trade.
b) Give an account of the heterogeneous-firms model of Melitz (2003) in an open economy. You are not required to derive the model formally but you should discuss important assumptions and relationships behind heterogeneous-export behaviour within an industry.
c) Take your point of departure in the Melitz model and discuss the effect of a trade liberalisation on the aggregate productivity.

Question 3:

Do you find these statements correct or not. Please elaborate on your answer in a clear and precise manner and identify the model or empirical work you refer to.

a) It is only the absolute trade costs between two countries that determines bilateral trade flows.
b) Trade in intermediate goods implies that it becomes less relevant to compare the development of prices across sectors and more relevant to compare within sectors.
c) External economies of scale are likely to lead to a situation where a larger country exploits a smaller one.
d) The Leontief paradox could be explained by unbalanced trade.
e) Vertical integration between a mother company and a foreign unit producing inputs is more likely in a capital then in a labour intensive industry.